# TABLE OF CONTENTS

**CALIFORNIA STATE UNIVERSITY, LONG BEACH**  
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## Welcome to the Beach
The California State University ........................................... 4  
A Message from the President ........................................... 8

## Degrees and Credentials Table .................................... 9

## Course Prefixes and Definitions ................................... 16

## Admission to CSULB
Admissions Procedures and Policies ................................... 19  
Impacted Programs ............................................................ 19  
Application Filing Periods .................................................. 20  
Freshman Applicants .......................................................... 21  
Eligibility Index ................................................................. 21  
Subject Requirements ........................................................ 21  
Lower-Division Transfer Requirements ................................. 23  
Upper-Division Transfer Requirements ................................. 23  
International Student Applicants ....................................... 24  
Graduate and Postbaccalaureate Procedures ......................... 25  
Application to Credential Programs .................................... 26  
Auditors .............................................................................. 26  
Returning and Transfer Students ....................................... 26  
Test Requirements ............................................................. 27  
Immigration Requirements for Licensure ............................... 28  
Estimated Expenses .......................................................... 29  
Housing ............................................................................. 29

## Fees, Financial Assistance
Fees .................................................................................. 31  
Payments ............................................................................ 32  
Refund of Fees .................................................................... 32  
Determination of Residency ............................................... 33  
Financial Holds ................................................................. 36  
Financial Assistance Information ....................................... 37  
Financial Aid Programs ...................................................... 38

## Academic Services and Campus Life
Orientation and Advising .................................................... 42  
Advisement Centers on Campus .......................................... 42  
University Honors Program .............................................. 43  
Student Academic Support Services ................................. 43  
Internship Programs .......................................................... 43  
Learning Assistance Center .............................................. 45  
Study Abroad ..................................................................... 45  
Campus Services ............................................................... 46  
Student Life and Resources .............................................. 47  
Student Government ........................................................ 48

## Academic Information and Regulations
Frequently Asked Questions .............................................. 49  
Academic Calendar ............................................................ 49  
Enrolling in Classes ........................................................... 50  
Registration Holds ............................................................ 50  
Class Attendance ............................................................... 50  
Cheating and Plagiarism ..................................................... 51  
Student Unit Load ............................................................... 54  
Course Numbers ............................................................... 55  
Course Credit Units ........................................................... 55  
Transfer Credit ................................................................. 56  
Open University/Special Session ...................................... 57  
Advanced Placement Examination Credit Table ............... 57  
Credit for Noncollegiate Instruction .................................... 61  
Grades and Grading Procedures ......................................... 61  
Assignment and Change of Grades .................................... 64  
Repetition of Courses ....................................................... 65  
Grade Appeals ................................................................. 66  
Scholastic Probation and Disqualification ......................... 70  
Academic Appeals ............................................................. 71  
Withdrawal Policy ............................................................ 72  
Educational Leave .............................................................. 72

## Baccalaureate Degree Information
Frequently Asked Questions .............................................. 73  
General Education ............................................................ 74  
Majors ............................................................................... 76  
Additional Baccalaureate Degrees ..................................... 78  
Graduation Writing Assessment Requirement (GWAR) ........ 78  
Graduation ................................................................. 79  
Honors ............................................................................. 80  
CSULB Alumni Association .............................................. 82

## Graduate Degree Information
Degrees Offered ................................................................. 83  
Admission ................................................................. 84  
Graduation Writing Assessment Requirement (GWAR) ........ 85  
Regulations ................................................................. 87  
Advancement to Candidacy .............................................. 89  
Theses and Projects ....................................................... 90  
Academic Probation and Disqualification ......................... 91  
Academic Credit ............................................................. 91  
Graduate Studies 700 ......................................................... 92  
Honors ................................................................. 92
Colleges and Departments

Accountancy .......................................................... 93
Advanced Studies in Education and Counseling .... 96
Africana Studies ...................................................... 122
American Indian Studies ...................................... 126
American Studies .................................................... 130
Anthropology ............................................................ 132
Art, School of ........................................................ 139
Arts, College of ...................................................... 182
Asian and Asian American Studies .................. 184
Asian Languages ...................................................... 195
Athletics ................................................................. 197
Biological Sciences ................................................. 198
Business Administration, College of ............ 227
Chemical Engineering ........................................... 244
Chemistry and Biochemistry .............................. 250
Chicano and Latino Studies .................................. 265
Child Development and Family Studies .......... 270
Chinese Studies ...................................................... 275
Civil Engineering and Construction Engineering Management ....................... 278
Classics ................................................................. 292
Communication Studies ....................................... 297
Comparative World Literature .......................... 304
Computer Engineering and Computer Science . 310
Consumer Affairs .................................................... 327
Continuing and Professional Education, College of ................................. 330
Criminology, School of ......................................... 333
Dance ................................................................. 343
Design ................................................................. 355
Economics ............................................................. 362
Education, College of ......................................... 369
Educational Leadership ........................................ 373
Electrical Engineering .......................................... 384
Emergency Management ...................................... 398
Engineering, College of ....................................... 401
Engineering Technology Programs ................. 411
English ................................................................. 421
Environmental Science and Policy ................. 436
Family and Consumer Sciences ....................... 440
Fashion Merchandising and Design ............... 447
Film and Electronic Arts .................................... 452
Finance ................................................................. 462
Food Science .......................................................... 465
French ................................................................. 468
Geography ........................................................... 474
Geological Sciences ........................................... 486
German ................................................................. 495
Gerontology ............................................................ 499
Global Logistics ...................................................... 504
Global Migration Studies .................................... 506
Health and Human Services, College of ....... 507
Health Care Administration ................................ 511
Health Science ...................................................... 518
History ................................................................. 525
Hospitality Management ..................................... 541
Human Development ............................................. 545
Information Systems ............................................. 549
International Business ........................................ 553
International Studies .......................................... 555
Italian ................................................................. 560
Japanese .............................................................. 565
Jewish Studies ....................................................... 570
Journalism and Mass Communication ........... 571
Kinesiology ............................................................. 576
Latin American Studies ..................................... 596
Legal Studies .......................................................... 598
Liberal Arts, College of ........................................ 599
Liberal Studies ........................................................ 603
Linguistics .............................................................. 611
Management and Human Resources Management ............................................. 619
Marketing .............................................................. 623
Mathematics and Statistics ............................... 626
Mechanical and Aerospace Engineering ........ 643
Medieval and Renaissance Studies ................ 659
Military Science ....................................................... 661
Music – The Bob Cole Conservatory of Music .... 663
Natural Sciences and Mathematics, College of ........................................... 685
Nursing, School of .................................................. 690
Nutrition and Dietetics ......................................... 710
Ocean Studies Institute ...................................... 715
Peace Studies .......................................................... 717
Philosophy .............................................................. 718
Physical Therapy ..................................................... 725
Physics and Astronomy ....................................... 731
Political Science ..................................................... 741
Psychology .............................................................. 749
Public Policy and Administration ..................... 762
Recreation and Leisure Studies ...................... 768
Religious Studies ..................................................... 776
Romance, German, Russian Languages and Literatures .............................................. 782
Russian ................................................................. 785
Social Work, School of ......................................... 787
Science Education ................................................. 800
Single Subject Teacher Education Program .... 804
Sociology ................................................................. 811
Spanish ................................................................. 818
Speech-Language Pathology ................................ 825
Student Recreation and Leadership ................. 831
Teacher Education ................................................. 832
Theatre Arts ........................................................... 852
University Courses ................................................ 865
University Honors Program ............................. 867
Women's, Gender, and Sexuality Studies ........ 869

General Policies and Regulations
Catalog Rights .......................................................... 874
Nondiscrimination Policy ..................................... 877
Campus Standards of Conduct .......................... 885
Policy on Sexual Assault ...................................... 887

Faculty ....................................................................... 897
Index ......................................................................... 928
Welcome to the California State University (CSU) – the world’s largest comprehensive higher education system in the nation with 23 unique campuses serving more than 470,000 students with 47,000 employees statewide. Each year, the University awards more than 100,000 degrees. CSU graduates now total more than 3 million strong, and are serving as leaders in the industries that drive California’s economy, including business, agriculture, entertainment, engineering, teaching, hospitality and healthcare. Learn more at www.calstate.edu.

More than 50-year tradition of excellence
Since 1961, the CSU has provided an affordable, accessible, and high-quality education to 3 million graduates around the state of California. While each campus is unique based on its curricular specialties, location and campus culture, every CSU is distinguished for the quality of its educational programs. All campuses are fully accredited, provide a high-quality broad liberal educational program and offer opportunities for students to engage in campus life through the Associated Students, Inc., clubs and service learning. Through leading-edge programs, superior teaching and extensive workforce training opportunities, CSU students graduate with the critical thinking skills, industry knowledge and hands-on experience necessary for employment and career advancement.

Facts
• CSU faculty attract nearly $540 million annually in research and education grants, and contracts by federal, state and regional agencies.
• Today, one of every 20 Americans with a college degree is a CSU graduate.
• One in every 10 employees in California is a CSU alumnus.
• The CSU awards 43 percent of the bachelor’s degrees earned in California.
• Almost half of all the nurses in the state earn their degrees from the CSU.
• The CSU awards 95 percent of the hospitality/tourism degrees in the state.
• Nearly half of all of the state’s engineers earn their degrees from the CSU.
• The CSU is the leading provider of teacher preparation programs in the state.
• The CSU offers more than 104 fully online and 69 hybrid degree programs and concentrations.
• The CSU offers 3,253 online courses to provide more educational options to students who may prefer an online format to a traditional classroom setting.
• The CSU’s growing online concurrent enrollment program gives students the ability to enroll in courses offered by other campuses in the CSU system.

• Over the past four years, the CSU has issued nearly 50,000 professional development certificates in education, health services, business and technology, leisure and hospitality, manufacturing, international trade and many other industries.
• Nearly half of the CSU’s 470,000 students are engaged in some type of community service, totaling 32 million hours of service annually.
• More than 11,000 students participate in STEM (science, technology engineering and mathematics) service-learning courses.
• For every $1 that the state invests in the CSU, the University generates $5.43 for California’s Economy.

Governance
The Board of Trustees, most of who are appointed by the governor and serve with faculty and student representatives, govern the system. The CSU Chancellor is the chief executive officer, reporting to the Board. The campus presidents serve as the campus-level chief executive officers. The Trustees, Chancellor and Presidents develop systemwide educational policy. The Presidents, in consultation with the Academic Senate and other campus stakeholder groups, render and implement local policy decisions.

CSU Historical Milestones
The Donahoe Higher Education Act established the individual California State Colleges as a system with a Board of Trustees and a Chancellor in 1960. In 1972, the system was designated as the California State University and Colleges, and in 1982 the system became the California State University. Today, the CSU is comprised of 23 campuses, including comprehensive and polytechnic universities and, since July 1995, the California Maritime Academy, a specialized campus.

The oldest campus—San José State University—was founded in 1857 and became the first institution of public higher education in California. The newest—CSU Channel Islands—opened in fall 2002, with freshmen arriving in fall 2003.

In 1963, the State Academic Senate was established to act as the official voice of CSU faculty in systemwide matters. Also, the California State College Student Presidents Association—which was later renamed the California State Students Association—was founded to represent each campus student association on issues affecting students.

Through its many decades of existence, the CSU has continued to adapt to address societal changes, student needs and workforce trends. While the CSU’s core mission has always focused on providing high-quality, affordable bachelor’s and master’s degree programs, over time the University has added a wide range of services and programs to support student success – from adding health centers and special programs for veterans to building student residential facilities to provide a comprehensive educational experience.
To improve degree completion and accommodate students working full- or part-time, the educational paradigm expanded to give students the ability to complete upper-division and graduate requirements through part-time, late afternoon, and evening study. The University also expanded its programs to include a variety of teaching and school service credential programs, specially designed for working professionals.

The CSU marked another significant educational milestone when it broadened its degree offerings to include doctoral degrees. The CSU independently offers educational doctorate (Ed.D.), Doctor of Physical Therapy (DPT), and Doctor of Nursing Practice (DNP) degree programs. A limited number of other doctoral degrees are offered jointly with the University of California and private institutions in California.

In an effort to accommodate community college transfer students, the CSU, in concert with the California Community Colleges, launched the Associate Degree for Transfer, which guarantees admission to the CSU with junior status for transfer students who earn the AA-T or AS-T degrees.

Always adapting to changes in technology and societal trends to support student learning and degree completion, the CSU initiated another milestone in 2013, when it launched CalState Online, a systemwide collection of services that support the delivery of fully online programs from campuses. Now, full-time students also have access to fully online courses offered at other CSU campuses.

By providing an accessible, hands-on education that prepares graduates for career success, the CSU has created a network of alumni that is so extensive and renowned that it spans across the globe. In 2014-15, the CSU celebrated The Class of 3 Million, the year-round campaign celebrating the 3 million alumni from all of CSU’s campuses, including the Class of 2015.

The CSU strives to continually develop innovative programs, services and opportunities that will give students the tools they need to meet their full potential. With 23 campuses, 470,000 students and 47,000 faculty and staff, the CSU is committed to providing a quality higher education that prepares students to become leaders in the changing workforce.

Office of the Chancellor
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Welcome to California State University, Long Beach, one of the nation's most vibrant and successful public universities.

Here you will benefit from an exciting, rigorous learning environment that promotes global engagement and prepares you for the challenges and opportunities of tomorrow.

CSULB is characterized by exceptional academic programs, outstanding support services, dedicated faculty and a diverse student population. Our 322-acre campus provides an inviting collegiate atmosphere as well as state-of-the-art facilities.

We encourage you to take advantage of all the Beach has to offer.
# Degrees, Options, Minors, Certificates, and Credentials

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Type of Program</th>
<th>Catalog Reference</th>
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<tbody>
<tr>
<td>3-D Media</td>
<td>Option, BFA in Art</td>
<td>Art</td>
</tr>
<tr>
<td>Accountancy</td>
<td>Option, BS in Business Administration/MS</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Acting</td>
<td>Option, MFA in Theatre Arts</td>
<td>Theatre Arts</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>Credential (Preliminary and Professional)</td>
<td>Educational Leadership</td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>BS/MS</td>
<td>Mechanical and Aerospace Engineering</td>
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<tr>
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<td>BA/Minor/Certificate</td>
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<tr>
<td>American Indian and Indigenous Studies</td>
<td>Certificate</td>
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<tr>
<td>American Studies</td>
<td>BA/Minor</td>
<td>American Studies</td>
</tr>
<tr>
<td>Anthropology</td>
<td>BA/Minor/MA</td>
<td>Anthropology</td>
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<td>Anthropology, Applied</td>
<td>Option, MA in Anthropology</td>
<td>Anthropology</td>
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<tr>
<td>Applied Disability Studies</td>
<td>Certificate</td>
<td>Advanced Studies in Education Counseling</td>
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<tr>
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<td>Art</td>
</tr>
<tr>
<td>Art Education</td>
<td>Option, BA in Art</td>
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<td>Art History</td>
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2016-2017 CSULB Catalog  •  Degrees  •  9
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<td>WGSS</td>
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<td>WPE</td>
<td>Writing Proficiency Examination Preparation and Review</td>
<td>University Courses</td>
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ADMISSION TO CSULB

Choosing CSULB

CSULB’s core academic mission is to graduate students with highly valued degrees. California State University, Long Beach is a nationally renowned public research university that values academic excellence, diversity and community engagement.

University Outreach and School Relations (UOSR) is the university’s student recruitment and guest relations office and the primary contact point for prospective students seeking information about CSULB’s admission processes, academic departments, student-support programs, and campus life.

UOSR provides application workshops for high school and transfer prospective students, adult re-entry workshops, and educational awareness programs for elementary and middle school students. UOSR also offers guided campus tours and specialized campus visits for K-12 students, parents, counselors and community groups. We encourage prospective students to explore the campus and visit our website at www.csulb.edu.

For more information, call (562) 985-5358, go to www.csulb.edu/outreach or visit the UOSR Office at Brotman Hall, Room 289.

Admissions Procedures and Policies

Requirements for admission to California State University, Long Beach are in accordance with Title 5, Chapter 1, Subchapter 3, of the California Code of Regulations. Complete information is available at www.csumentor.edu/planning/.

Electronic versions of the CSU undergraduate and graduate applications are accessible at www.csumentor.edu. The CSUMentor system allows students to browse through general information about CSU’s 23 campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid.

Applying online via www.csumentor.edu is expected unless electronic submission is impossible. An acknowledgement will be sent when online applications have been submitted. Application in “hard copy” form may be obtained online via www.csumentor.edu as a portable data format (PDF). Application forms (in PDF) may also be downloaded from www.calstate.edu/sas/publications. [Paper applications should be mailed to the campus admission office(s).]

Importance of Filing Complete, Accurate, and Authentic Application Documents

CSU, Long Beach advises prospective students that they must supply complete and accurate information on the application for admission, residency questionnaire, and financial aid forms. Further, applicants must, when requested, submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate, and authentic application documents may result in denial of admission, cancellation of academic credit, suspension, or expulsion (Section 41301, Article 1.1, of Title 5, California Code of Regulations).

Undergraduate Application Procedures

Prospective students applying for part-time or full-time undergraduate programs of study must submit a completed undergraduate application. The $55 nonrefundable application fee should be in the form of a check or money order payable to “The California State University” or by credit card and may not be transferred or used to apply to another term. An alternate major may be indicated on the application. The applications of persons denied admission to an impacted campus may be re-routed to another campus at no cost, but only if the applicant is CSU eligible.

Readmission

Students who break attendance by not enrolling in classes each semester, and who have not filed for educational leave, must reapply for admission. Transcripts of work completed elsewhere during the absence must also be submitted. Students who left under academic disqualification must submit a “Reinstatement Petition” and an "Application for Reinstatement with their completed application prior to June 1 for the Fall semester or November 1 for the Spring semester.

Impacted Programs

The CSU designates programs as impacted when more applications from regularly eligible applicants are received in the initial filing period (October and November for fall terms, June for winter terms, August for spring terms, February for summer terms) than can be accommodated. Some programs are impacted at every campus on which they are offered; others are impacted only at a few campuses. Candidates for admission must meet all of the campus’ specified supplementary admission criteria if applying to an impacted program or campus.

The CSU will announce during the fall filing period those campuses or programs that are impacted. Detailed information on campus and program impaction will be available at the following websites:

- www.csumentor.edu
- www.calstate.edu/impactioninfo.shtml
- www.calstate.edu/sas/impaction-campus-info.shtml

Campuses will communicate supplementary admission criteria for all impacted programs to high schools and community colleges in their service area and will disseminate this information to the public through appropriate media. This information will also be published at the CSU campus individual website and made available online at www.calstate.edu.

Applicants must file applications for admission during the initial filing period. Applicants who wish to be considered at more than one campus must file an application at each campus for which they seek admission consideration.

Supplementary Admission Criteria

Each campus with impacted programs or admission categories uses supplementary admission criteria in screening applicants. Supplementary criteria may include...
rank–ordering of freshman applicants based on the CSU eligibility index or rank-ordering of transfer applicants based on verification of AA-T or AS-T degree, the overall transfer grade point average (GPA), completion of specified prerequisite courses, and a combination of campus-developed criteria. Applicants for freshman admission to impacted campuses or programs are required to submit scores on either the SAT or the ACT. For fall admission, applicants should take tests as early as possible, but no later than November or December of the preceding year.

The supplementary admission criteria used by the individual campuses to screen applicants are made available by the campuses to all applicants seeking admission to an impacted program. Details regarding the supplemental admission criteria are published at www.calstate.edu/impactioninfo.shtml.

**Application Filing Periods**

<table>
<thead>
<tr>
<th>Terms</th>
<th>Applications Filing Period</th>
<th>Initial Filing Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>February 1</td>
<td>February 1 - 28</td>
</tr>
<tr>
<td>Fall</td>
<td>October 1</td>
<td>Oct 1 - Nov 30</td>
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<tr>
<td>Winter</td>
<td>June 1</td>
<td>June 1 - 30</td>
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<tr>
<td>Spring</td>
<td>August 1</td>
<td>August 1-31</td>
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**Filing Period Duration**

Each non-impacted campus accepts applications until capacities are reached. Many campuses limit undergraduate admission in an enrollment category due to overall enrollment limits. Students applying after the initial filing period should consult the campus admissions office for current information. Similar information is conveniently available at www.csumentor.edu/filing_status.

**Application Acknowledgment**

On-time applicants may expect to receive an acknowledgment from the campuses to which they have applied within two to four weeks of filing the application. The notice may also include a request that applicants submit additional records necessary to evaluate academic qualifications. Applicants may be assured of admission if the evaluation of relevant qualifications indicates that applicants meet CSU admission requirements, and in the case of admission impaction, supplemental criteria for admission to an impacted program. Unless specific written approval/confirmation is received, an offer of admission is not transferable to another term or to another campus.

**Undergraduate Requirement Deadlines**

Prior to matriculation (official registration as a CSULB-admitted student), students must complete, by published deadlines, admission requirements — including subject requirements, unit minimums, grade-point averages, final transcript and testing requirements. Refer to the Enrollment Services web site (www.csulb.edu/enrollment) for current requirements.

**Intrasystem and Intersystem Enrollment Programs**

Fully matriculated students enrolled at any CSU campus have access to courses at other CSU campuses on a space available basis unless those campuses/programs are impacted. This access is offered without students being required to be formally admitted to the host campus and in most cases without paying additional fees. Students should consult their home campus academic advisors to determine how such courses may apply to their specific degree programs before enrolling at the host campus.

There are two programs for enrollment within the CSU and one for enrollment between CSU and the University of California or California Community Colleges. Additional information about these programs is available from the Office of Enrollment Services.

CSU Fully Online Courses – Matriculated students in good standing may request enrollment in one course per term, offered by a CSU host campus. Enrollment requests will be granted based on available space, as well as completion of any stated prerequisites. Credit earned at the host campus is electronically reported to the student’s home campus to be included on the student’s transcript at the home campus.

CSU Visitor Enrollment – matriculated students in good standing enrolled at one CSU campus may enroll on a space available basis at another CSU campus for one term. Credit earned at the host campus is reported at the student’s request to the home campus to be included on the student’s transcript at the home campus.

Intersystem Cross Enrollment – matriculated CSU, UC, or community college students may enroll on a “space available” basis for one course per term at another CSU, UC, or community college and request that a transcript of record be sent to the home campus.

**Concurrent Enrollment Within the CSU**

All CSULB students wishing to enroll concurrently at CSULB and one of the other 23 California State University campuses must request permission to do so from the Office of Enrollment Services. Concurrent enrollment within the California State University system is limited to students who have completed a minimum of 12 units at CSULB, have a minimum 2.0 grade-point average, are in good academic standing and have paid fees at CSULB for 12 units or more regardless of the total number of units earned at both campuses. No additional fees may be collected after the last day to add classes. Concurrent Enrollment is subject to space availability and registration priority policies at the host campus.

No graduate student may register concurrently at this and any other collegiate institution without advance permission. Permission may be given for concurrent enrollment at CSULB and other institutions if recommended by the department graduate advisor and approved by the Dean of the appropriate college. Forms for concurrent enrollment may be obtained from the college office. When such permission is granted, the academic load at CSULB must be reduced accordingly.

**Visitor Enrollment Within the CSU**

Students enrolled in any CSU campus may apply to transfer temporarily to another CSU campus in Visitor status, if they have (1) completed 12 units at the home campus, (2) have earned at least a 2.0 cumulative GPA at the home campus, (3) are in good academic standing at the home campus, and (4) are eligible to register under continuing status at the home campus. Approval for visitor enrollment is valid for one term only and is subject to
the host campus policies including application deadlines, space availability, and registration priority. Details and Visitor Enrollment Applications are available at the Office of Enrollment Services. Students from other CSU campuses seeking visitor status at CSULB must also contact their home registration office for additional information.

**Enrollment of Non-matriculated Students**

Applicants not admissible at this time under any of the preceding categories could enroll in another institution, such as a community college, to prepare for admissibility at a future date. Non-matriculated students may be able to avail themselves of programs in the College of Continuing and Professional Education.

Open University (Concurrent Enrollment) — Through Open University, students who are NOT matriculated in CSULB may take regular university classes during spring or fall semesters for academic credit on a "space available" basis with permission of the department chair and the course instructor. Open University enrollment does NOT constitute admission to CSULB. For more information call the College of Continuing and Professional Education at (562) 985-5561.

**Summer Sessions, May Intersession, and Winter Session Students**

Summer, May, and Winter Session enrollment is open to all matriculated CSULB students and all non-matriculated students such as prospective students, students from other colleges and universities, and interested individuals from the community. No application or admissions process is required for summer and winter registration.

CSULB does not admit matriculated students to start in the Winter, May, or Summer Session. Registration in Winter, May, or Summer as a non-matriculated student does not ensure the privilege of enrolling in the fall or spring semester as a matriculated student. To register for Winter, May, or Summer Session courses, students should contact the College of Continuing and Professional Education at (800) 963-2250.

**Freshman Applicants**

**Preparation and Eligibility**

California State University, Long Beach continues to be the 'University of Choice' for a talented and diverse group of California's best and brightest students. CSULB continues to receive more first-time freshman applicants than can be accommodated. To maintain the academic quality of CSULB academic programs and services, supplemental admissions criteria, are applied to first-time freshman applicants. First-time freshmen must:

- Apply on time. Apply between October 1 and November 30.
- Take the SAT 1 or ACT no later than December and request scores be sent to CSULB as soon as they are available.
- Complete the CSU required 15 unit college preparatory "a-g" subjects prior to graduation.
- Perform well – earn the best grades possible (including the senior year).
- Pursue a back up plan should they not be offered admission to CSULB.

The offer of admission is confirmed when the university verifies that applicants have a CSULB qualifiable minimum eligibility index and will have completed the comprehensive pattern of college preparatory "a-g" subjects.

**Eligibility Index**

The eligibility index is the combination of the high school grade-point average and scores on either the ACT or the SAT. Grade-point averages (GPA) are based on grades earned in courses taken during the final three years of high school. Included in calculation of GPA are grades earned in all college preparatory "a-g" subject requirements with bonus points for approved honors courses (excluding physical education and military science).

Up to eight semesters of honors courses taken in the last two years of high school, including up to two approved courses taken in the tenth grade, can be accepted. Each unit of "A" in an honors course will receive a total of 5 points; with 4 points for a "B," and 3 points for a "C."

A CSU Eligibility Index (EI) can be calculated by multiplying a grade-point average by 800 and adding the total of the mathematics and critical reading scores of the SAT. Students who took the ACT, multiply the grade-point average by 200 and add ten times the ACT composite score. Persons who are California high school graduates (or residents of California for tuition purposes) need a minimum index of 2900 using the SAT I or 694 using the ACT to be considered for admission.

For admission to terms during the 2016-2017 college year, the university has no plans to include the writing scores from either of the admissions tests in the computation of the CSU Eligibility Index.

Persons who neither graduated from a California high school nor are residents of California for tuition purposes, need a minimum index of 3502 (SAT) or 842 ACT.

California State University, Long Beach requires all applicants for freshman admission to submit test scores from the SAT I or ACT, regardless of their high school grade-point average. No freshman applicants will be admitted who have not submitted the required test scores.

Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.

**Subject Requirements**

The California State University requires that first-time freshman applicants complete, with grades of "C" or higher, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school.

- 2 years of social science, including 1 year of U.S. history, or U.S. history and government
- 4 years of English
- 3 years of math (algebra, geometry and intermediate algebra)
- 2 years of laboratory science (1 biological & 1 physical, both must have laboratory instruction)
- 2 years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence)
- 1 year of visual and performing arts: art, dance, drama/theater, or music
- 1 year of electives: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts or other
Foreign Language Waiver

The foreign language subject requirement may be satisfied by applicants who demonstrate competence in a language other than English equivalent to or higher than that expected of students who complete two years of foreign language study. Students should consult with their school counselor or any CSU campus admission or relations with schools office for further information.

Special Admission Consideration for Students with Disabilities

The Special Admission process is a means by which applicants, who may not meet the California State University Long Beach (CSULB) admission requirements due to disability, but who are "otherwise qualified," may request special consideration for admission. The Disabled Student Services (DSS) Special Admission Committee facilitates this process by consulting with Enrollment Services while providing additional information about each applicant's special circumstances. It is the committee's function to evaluate disability documentation using guidelines established by the California State University (CSU) system. All applicants are reviewed on a case-by-case basis. For more information call (562) 985-4430 or visit www.csulb.edu/spb.

High School Students — Young Scholars Program

High school students may be considered for enrollment in certain special programs if recommended by the principal and the appropriate campus department chair and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for those high school students who satisfactorily, including the required college preparatory courses approved and included on the UC/CSU "a-g" list are found to be ineligible after the final transcript has been evaluated.

Applicants will qualify for regular (non-provisional) admission when the University verifies that they have graduated and received a diploma from high school, have a qualifiable minimum eligibility index, have completed the comprehensive pattern of college preparatory "a-g" subjects, and, if applying to an impacted program or campus, have met all supplementary criteria.

The CSU uses only the ACT composite score or the SAT mathematics and critical reading scores in its admission eligibility equation. The SAT or ACT writing scores are not currently used by CSU campuses.

Transfer Policies of CSU Campuses

Most commonly, college level credits earned from an institution of higher education accredited by a regional accrediting agency are accepted for transfer to campuses of the CSU; however, authority for decisions regarding the transfer of undergraduate credits is delegated to each CSU campus.

California Community Colleges and other authorized certifying institutions can certify up to 39 semester (58.5 quarter) units of General Education-Breadth (GE-Breadth) or 37 semester (55.5 quarter) units of the Intersegmental General Education Transfer Curriculum (IGETC) for transfer students to fulfill lower-division general education requirements for any CSU campus prior to transfer.

"Certification" is the official notification from a California Community College or authorized institution that a transfer student has completed courses fulfilling lower-division general education requirements. The CSU GE-Breadth and the Intersegmental General Education Transfer Curriculum (IGETC) certification course lists for particular community colleges can be accessed at www.assist.org.

CSU campuses may enter into course-to-course or program-to-program articulation agreements with other CSU campuses and any or all of the California Community Colleges, and other regionally accredited institutions. Established CSU and California Community College articulations may be found on www.assist.org. Students may be permitted to transfer no more than 70 semester (105 quarter) units to a CSU campus from an institution that does not offer bachelor’s degrees or their equivalents, for example, community colleges. Given the university’s 30-semester (45-quarter) unit residency requirement, no more than a total of 90-semester (135-quarter) units may be transferred into the University from all sources.

Transfer Requirements

Applicants who have completed fewer than 60 transferable semester college units (fewer than 90 quarter units) are considered lower-division transfer students. Applicants who have completed 60 or more transferable semester college units (90 or more quarter units) are considered upper-division transfer students. Applicants who complete college units during high school or through the summer immediately following high school graduation are considered first-time freshmen and must meet the CSU minimum eligibility requirements for first-time freshman admission. Transferable courses are those designated for baccalaureate credit by the college or University offering the courses and accepted as such by the campus to which the applicant seeks admission.
Lower Division Transfer Requirements

Generally, applicants will qualify for CSU admission consideration as a lower-division transfer if they have a cumulative grade point average of at least 2.0 in all transferable units attempted.

1. Will meet the freshman admission requirements (grade point average and subject requirements) in effect for the term to which they are applying (see "Freshman Requirements" section); or
2. Were eligible as a freshman at the time of high school graduation except for missing college preparatory subject requirements, have been in continuous attendance in an accredited college since high school graduation, and have made up the missing subject requirements with a 2.0 or better GPA.

Applicants who graduated from high school prior to 1988 should contact the admission office to inquire about alternative admission programs.

Lower-division applicants who did not complete subject requirements while in high school may make up missing subjects in any of the following ways:

1. Complete appropriate courses with a C or better in adult school or high school summer sessions.
2. Complete appropriate college courses with a C or better. One college course of at least three semester or four quarter units will be considered equivalent to one year of high school study.
3. Earn acceptable scores on specified examinations, e.g., SAT subject tests.

Please consult with the CSU campus admission office, to which you are applying for further information about alternative ways to satisfy the subject requirements. Due to increased enrollment demands, most CSU campuses do not admit lower-division transfer applicants.

Upper-Division Transfer Requirements

Generally, applicants will qualify for consideration for upper-division transfer admission if they meet all of the following requirements:

1. Cumulative grade point average of at least 2.0 in all transferable units attempted;
2. In good standing at the last college or university attended; and
3. Completed at least sixty (60) transferable semester (90 quarter) units of college level coursework with a grade point average of 2.0 or higher and a grade C or better in each course used to meet the CSU general education requirements in written communication, oral communication, critical thinking, and quantitative reasoning, e.g. mathematics.

The 60 units must include at least 30 units of courses which meet CSU general education requirement, including all of the general education requirements in communication in the English language (both oral and written) and critical thinking and the requirement in mathematics/quantitative reasoning (usually 3 semester units) OR the Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.

Associate Degrees for Transfer (AA-T or AS-T)

The Associate in Arts for Transfer (AA-T) and the Associate in Science for Transfer (AS-T) degrees offered at the California Community Colleges (CCC) are designed to provide California Community College students a clear transfer preparation and admission pathway to those CSU degree majors deemed similar. Those students who complete these transfer degrees and who are admitted to a similar CSU major program or option for that discipline will be able to complete the Baccalaureate Degree within 60 semester or 90 quarter units providing that all remaining required courses are completed successfully without a break in attendance and providing that no supplemental courses for minors or areas of emphasis are undertaken.

California Community College students who earn an associate degree for transfer (AA-T or AS-T) are guaranteed admission with junior standing to the California State University but not to any particular campus or program. Because several CSU campuses are receiving more transfer applications from eligible students than can be accommodated, these campuses have declared impaction resulting in higher admission criteria. See more on impaction at www.calstate.edu/SAS/impactioninfo.shtml. However, transfer students who earn the AA-T or AS-T degrees, are given priority admission over other transfer applicants when applying to a non-impacted CSU campus or to a non-impacted program from a community college within the local admission area of the campus. These students are also given priority admission consideration when applying from a community college that is outside the local admission area of an impacted CSU campus or when applying to a similar program that is impacted at any CSU campus. A current list of CSU degree programs that have been deemed similar to the associate degrees for transfer can be found at www.calstate.edu/transfer/adt-search.

Those students who earn associate degrees for transfer and apply to a CSU campus but cannot be admitted due to impaction will be redirected to another CSU campus and offered admission for the same term. In order to qualify for the priority admission guarantee, transfer applicants must be conferred an approved Associate Degree for Transfer (AA-T/AS-T) by a California Community College, must apply for admission to California State University campuses for an open term by the published deadline, submit all requested transcripts and documents, meet CSU admission eligibility requirements for the campus and/or program, and must comply with any other prescribed admission requirements.

It is the responsibility of these transfer students to provide documentation about the completion of the degree to each CSU campus that has received an application for admission.

Provisional Admission

California State University, Long Beach may provisionally or conditionally admit transfer applicants based on their academic preparation and courses planned for completion. The campus will monitor the final terms to ensure that those admitted complete all required courses satisfactorily. All
accepted applicants are required to submit an official transcript of all college level work completed. Campuses may rescind admission for any student who is found to be ineligible after the final transcript has been evaluated. In no case may such documents be received and validated by the University any later than a student's registration for their second term of CSU enrollment.

**International Student Applicants**

The International Admissions component of the Center for International Education assists academically eligible international students to apply for admission to the University, and advises them of CSULB's financial, immigration and English language requirements. Throughout the students' attendance, the International Student Services staff is involved in their registration, evaluation of transfer credit, changes of majors, and graduation checks. Students are also counseled regarding their field of study requirements, which vary at both the undergraduate and graduate levels.

**International (Foreign) Admission Requirements**

The CSU must assess the academic preparation of foreign students. For this purpose, “foreign students” include those who hold U.S. temporary visas as students, exchange visitors, or in other nonimmigrant classifications. Application requests and questions should be directed to International Admissions (cie-admission@csulb.edu), located in the Center for International Education (BH 201).

The CSU uses separate requirements and application filing dates in the admission of international students. Verification of English proficiency (see the section on the English Language Requirement for undergraduate applicants) and academic performance are each important considerations for admission.

International students need to complete the International application on CSUMentor (www.csumentor.edu). The following documents are required:

1. International application form;
2. $55.00 application processing fee;
3. Affidavit of support from financial sponsor;
4. Bank statement/letter from financial sponsor;
5. Proof of acceptable English proficiency;
6. Official academic documents and certified English translations;
7. ACT or SAT (required for student athletes and graduates of U.S. high schools);

Once all the documents are submitted to the International Admission Office, eligibility for admission will be determined based on English proficiency and academic history, as well as other considerations. Graduate applications will also be forwarded to the graduate departments for review. Once admitted, international students will receive pre-arrival, arrival, and orientation information, and the appropriate immigration form and instructions on how to legally enter and/or remain in the U.S.-

The Department of Homeland Security (DHS) requires that international students be aware of and follow DHS regulations to remain legally in the U.S. for the duration of their academic status. International students on "F" and "J" visas must be enrolled as full time students. Courses taken through the College of Continuing and Professional Education at CSULB or courses taken concurrently at other colleges may only count toward full time status when approved in advance of course registration by the Center for International Education. Questions about DHS policies may be directed to the Center for International Education.

**TOEFL Requirement**

All undergraduate applicants whose native language is not English and who have not attended schools at the secondary level or above for at least three years full time where English is the principal language of instruction--must present a minimum score (Paper: 500, iBT: 61) unless the applicant:

1. has proof of at least three years attendance at a secondary level educational institution in a country where English was the principal language of instruction.* CSULB interprets "where English was the principal language of instruction" to mean that a school is located in a country where English is the native language (the daily medium of communication of the majority of residents is English), and that the students receive academic instruction in all subjects (except foreign language courses) at all levels of education in English, or
2. completed at least 60 transferable units from accredited U.S. community colleges and/or universities and earned a grade of A, B, or C in English 100 or its equivalent*, or
3. successfully completed Level 4 of CSULB’s American English Language Institute’s Intensive English Language Program.*
4. presents a minimum score of 5.5 in each sub-section on the International English Language Testing System (IELTS).
5. presents a minimum score of 43 on the Pearson Test of English.
6. presents a minimum score of Pre-1 on the Eiken Test.

Undergraduate applicants who are U.S. Citizens or Permanent Residents of the U.S. and who are subject to the above TOEFL requirement may submit results from the English Language Proficiency Test (ELPT) in lieu of TOEFL. A score of 954 on the ELPT is required of such applicants. EXCEPTION: Applicants applying for Film and Electronic Arts, which requires a 550 TOEFL score, and Journalism, which requires a 600 TOEFL score, will not be waived from the TOEFL requirement.

*For this exemption to remain valid, once having met the exemption, the student must not have left the U.S.A. for more than two years to reside or study in a country where English is not the predominant language of business, education and day-to-day societal functions.

**Insurance Requirement**

Effective August 1, 1995, as a condition of receiving an I-20 or DS-2019 form, all F-1 and J-1 visa applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment in the California State University. Such insurance must be in amounts as specified by the United States Department of State and NAFSA: Association of International Educators. The campus President or designee will determine which insurance policies meet these criteria. Further information may be obtained from the Center for International Education, Brotman Hall 201, (562) 985-4106.
Special Consideration

A very limited number of applicants who do not meet regular admission requirements may be considered by the University through an alternate screening process. As part of this review, admission may be offered based on institutional interests, special talents, or special circumstances. The authority to grant special admission is delegated to the Associate Vice President for Enrollment Services based on the recommendations of the appropriate campus committees.

Admission as a Candidate for a Second Baccalaureate Degree

CSULB accepts applicants for a second B.A./B.S. in science, math, engineering, foreign languages and nursing. Candidates for a second baccalaureate degree should apply using the graduate application.

Graduate and Post-Baccalaureate Application Procedures

All graduate and post-baccalaureate applicants (e.g., Ed.D., joint Ph.D. applicants, master’s degree applicants, those seeking educational credentials or certificates, and where permitted, holders of baccalaureate degrees interested in taking courses for personal or professional growth) must file a complete graduate application as described in the graduate and post-baccalaureate admission materials at www.csumentor.edu. Applicants seeking a second bachelor’s degree should submit the graduate application for admission unless specifically requested to do otherwise. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the $55 nonrefundable application fee. Since applicants for post-baccalaureate programs may be limited to the choice of a single campus on each application, re-routing to alternate campuses or later changes of campus choice are not guaranteed. To be assured of initial consideration by more than one campus, it is necessary to submit separate applications (including fees) to each. Applications submitted by way of www.csumentor.edu are expected unless submission of an electronic application is impossible. An electronic version of the CSU graduate application is available at www.csumentor.edu.

Graduate and Post-Baccalaureate Admission Requirements

Graduate and post-baccalaureate applicants may apply for a degree objective, a credential or certificate objective; or, where approved, may have no program objective. Depending on the objective, the CSU will consider an application for admission as follows:

• General Requirements — The minimum requirements for admission to graduate and post-baccalaureate studies at a California State University campus are in accordance with university regulations as well as Title 5, Chapter 1, Subchapter 3 of the California Code of Regulations.

• Specifically, a student shall at the time of enrollment: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or shall have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; (3) have earned a grade point average of at least 2.5 on the last degree completed by the candidate or have attained a grade point average of at least 2.5 (A=4.0) in the last 60 semester (90 quarter) units attempted; and (4) satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations, as appropriate campus authorities may prescribe. In unusual circumstances, a campus may make exceptions to these criteria.

Students who meet the minimum requirements for graduate and post-baccalaureate studies may be considered for admission in one of the four following categories:

• Graduate Classified – To pursue a graduate degree, applicants are required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or

• Graduate Conditionally Classified – Applicants may be admitted to a graduate degree program in this category if, in the opinion of appropriate campus authority, deficiencies may be remedied by additional preparation; or

• Post-Baccalaureate Classified, e.g. admission to an education credential program – Persons wishing to enroll in a credential or certificate program will be required to satisfy additional professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or

• Post-Baccalaureate Unclassified – To enroll in undergraduate courses as preparation for advanced degree programs or to enroll in graduate courses for professional or personal growth, applicants must be admitted as post-baccalaureate unclassified students. By meeting the general requirements, applicants are eligible for admission as post-baccalaureate unclassified students. Admission in this status does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program (Most CSU campuses do not offer admission to unclassified post-baccalaureate students).

These and other CSU admission requirements are subject to change as policies are revised and laws are amended. The CSU website www.calstate.edu and the CSU admissions portal www.csumentor.edu are good sources of the most up-to-date information.

Graduate and Post-Baccalaureate English Language Requirement

All graduate and post-baccalaureate applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor’s degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score, some programs require a higher score, on the Test of English as a Foreign Language (Paper-Based Test: 550, Internet-Based Test: 80), unless the
applicant:
1. Submits proof of having obtained a bachelor’s degree from an accredited post-secondary institution where English was the principal language of instruction. CSULB interprets "where English is the principal language of instruction" to mean that a school is located in a country where English is the native language (the daily medium of communication of the majority of residents is English), and the applicant received academic instruction in all subjects (except foreign language courses) at all levels of education in English, or
2. Notification from CSULB’s American Language Institute that the applicant has successfully completed level 6 of the American Language Institute Program.

NOTE: Several CSU campuses may use alternative methods for assessing fluency in English including Pearson Test of English Academic (PTE Academic), the International English Language Testing System (IELTS), and the International Test of English Proficiency (ITEP).

EXCEPTION: Applicants applying for Public Policy and Administration, which requires a 600 TOEFL, will not be waived from the TOEFL requirement. Also, for this exemption to remain valid for other students, once having met the exemption, the student must not have left the U.S.A. for more than two years to reside or study in a country where English is not the predominant language of business, education and day-to-day societal functions.

Application to Credential Programs

Students planning to enroll in credential programs must also file an application for admission to the University.

Information on application to credential programs is available from the appropriate department or program coordinator.

Note: Some programs have established application periods each year which are separate from the University application periods and process.

Auditors

Persons who have not been accepted by the University for the semester they wish to attend may request permission to audit courses through College of Continuing and Professional Education.

Students who have been accepted by the University may audit courses. See the regulation under "Grades and Administrative Symbols." The deadline to declare an "audit" grade option is the end of the third week of instruction. Follow the instructions in the Schedule of Classes for requesting a course as an "audit" grading option. At the end of the semester the instructor will assign an "audit" grade to the official grade sheet which will be forwarded to the Office of Enrollment Services for recording. Courses taken for audit may be repeated in subsequent terms for credit.

Courses successfully audited are listed on the student’s academic record but carry no credit or grade points.

Returning and Transfer Students

Returning students must reapply to the University under the same conditions and deadlines as all other applicants. Students who have not maintained continuous attendance status shall be subject to the General Education requirements in effect at the time of their reentry to the university, with the following exceptions:

Previous CSULB students who were under earlier General Education requirements and who before breaking continuous attendance needed no more than three additional courses to complete the entire General Education requirement shall be allowed to complete the General Education requirement in effect at the time of the previous attendance. However, all students must complete at least 9 units of upper division General Education courses, of which a minimum of 6 units must be Capstone courses.

Previous CSULB students who were under the earlier General Education requirements and who before breaking continuous attendance completed one or more upper-division GE courses shall be required to complete additional Capstone courses as needed to complete the total of 9 upper-division units. At least two of the courses in the overall program must be Capstone courses.

Transfer students who enter CSULB with full GE certification from a California Community College must complete both the Human Diversity in the U.S. and the Global Issues requirements if these requirements were not met through transfer, but these students need not complete any other GE courses except the Capstone, which cannot be met through transfer from a community college. Transfer students who enter CSULB without full GE certification from a California Community College must complete the CSULB General Education requirements.

Hardship Petitions

The campus has established procedures for consideration of qualified applicants who would be faced with extreme hardship if not admitted. Petitioners should write the campus Office of Enrollment Services regarding specific policies governing hardship admission. (See Admissions Procedures and Policies at the beginning of this section.)

Early Start Program

Entering resident freshmen who are not proficient in math or English will need to start the remediation process before their first regular term.

Entering resident freshmen who are not proficient in math or English will need to start the remediation process before their first regular term.

The goals of the Early Start Program are to:
- Better prepare students in math and English, before the fall semester of freshman year;
- Add an important and timely assessment tool in preparing students for college; and
- Improve students’ chances of successful completion of a college degree.

Entering freshmen who are not proficient in math or English, as determined by their ELM and EPT scores, are required to participate in Early Start. Participation provides new students with an opportunity to begin to integrate into campus life and possibly improve their placement in Fall math or English classes. Students who take 3-unit extended Early Start courses often require less developmental coursework and may start the fall ready for General Education math and writing.

Newly admitted freshmen who are required to participate in Early Start will be notified of the requirement and options for completion as part of campus email
Test Requirements

The office of Testing, Evaluation and Assessment administers local, state and national tests for placement and certification. Test programs currently offered include the SAT, ACT, EPT/ELM, WPE, and Chemistry 111A.

Freshman and transfer applicants who have fewer than 60 semester or 90 quarter units of transferable college credit are strongly encouraged to submit scores, unless exempt (see “Eligibility Index”), from either the ACT or the SAT of the College Board. Persons who apply to an impacted program may be required to submit test scores and should take the test no later than November or December. Test scores also are used for advising and placement purposes. Registration forms and dates for the SAT or ACT are available from school or college counselors or from a CSU campus testing office.

For information about the CSULB Testing, Evaluation and Assessment Department, please see: http://www.csulb.edu/divisions/students/testing/.

Students also may contact:

- The College Board (SAT)  ACT Registration Unit
  (609) 771-7588  (319) 337-1270
- Registration Unit, Box 6200  P.O. Box 414
- Princeton, NJ 08541-6200  Iowa City, Iowa 52240
- www.collegeboard.org  www.act.org

The office of Testing, Evaluation and Assessment at CSULB is located in Brotman Hall 216. For information, phone (562) 985-4007, FAX (562) 985-2415, or visit the Testing Office website at www.csulb.edu/testing.

English Language Requirement

All undergraduate applicants whose native language is not English and who have not attended schools at the secondary level or above for at least three years full time where English is the principal language of instruction must present a score of 61 (iBT) or above on the Test of English as a Foreign Language (TOEFL). Some majors and colleges may require a score higher than 61. A few colleges may also use alternative methods of assessing English fluency: Pearson Test of English Academic (PTE Academic), the International English Language Testing System (IELTS), and the International Test of English Proficiency (ITEP).

Each campus will post the tests it accepts on its website and will notify applicants about the tests it accepts and when to submit scores.

The CSU minimum TOEFL standards are:

Undergraduate 61 - Internet 500 - Paper
Graduate 80 - Internet 550 - Paper

Systemwide Placement Test Requirements

The CSU requires that each entering undergraduate, except those who qualify for an exemption, take the CSU Entry Level Mathematics (ELM) examination and the CSU English Placement Test (EPT) prior to enrollment. These placement tests are not a condition for admission to the CSU, but they are a condition of enrollment. These examinations are designed to identify entering students who may need additional support in acquiring college entry-level English and mathematics skills necessary to succeed in CSU baccalaureate-level courses. Undergraduate students who do not demonstrate college-level skills both in English and in mathematics will be placed in appropriate remedial programs and activities during the first term of their enrollment. Students placed in remedial programs in either English or mathematics must complete all remediation in their first year of enrollment. Failure to complete remediation by the end of the first year may result in denial of enrollment for future terms. Students register for the EPT (www.csuenglishsuccess.org/ept) and/or ELM (www.csuenglishsuccess.org/elm_exam). Campus may establish deadlines by which new students must register for and/or take placement exams as a requirement for enrollment.
English Placement Test (EPT)

The English Placement Test (EPT) is designed to assess the level of reading and writing skills of students entering the California State University. The CSU EPT must be completed by all non-exempt entering undergraduates prior to enrollment in any course, including remedial courses. Students who score 147 or above on the EPT will be placed in college-level composition classes.

Exemptions from the EPT are granted to students who provide proof of one of the following:

- A score of 500 or above on the critical reading section of the College Board SAT Reasoning Test
- A score of 22 or above on the American College Testing (ACT) English Test
- A score of 3 or above on either the Language and Composition or Composition and Literature examination of the College Board Scholastic Advanced Placement Program
- Completion of a course that transfers to a CSU and satisfies the requirement in Qualitative Reasoning, provided such a course was completed with a grade of C or better
- A result of Standard Exceeded: Ready for CSU college-level coursework in English on the California Assessment of Student Performance and Progress (CAASPP) exam

The following Conditionally Ready statuses require students to continue their preparation in the 12th grade by completing an approved English course with a grade of C or better. Students that do not meet the conditional requirement will need to participate in the CSU’s Early Start Program, unless exemption was met through another pathway.

- 460-490 on the Critical Reading portion of the SAT Reasoning Test
- 19-21 on the English portion of the ACT Test
- A result of Standard Met: Conditionally Ready for college-level coursework in English on the CAASPP exam

Entry-Level Mathematics (ELM) Examination

The Entry Level Mathematics (ELM) Examination is designed to assess and measure the level of mathematics skills acquired through three years of rigorous college preparatory mathematics coursework (Algebra I and II, and Geometry) of students entering the California State University (CSU). The CSU ELM must be completed by all non-exempt entering undergraduates prior to enrollment in any course, including remedial courses. Students who score 50 or above on the ELM will be placed in college-level mathematics classes.

Exemptions from the ELM are granted to students who provide proof of one of the following:

- A score of 550 or above on the mathematics section of the College Board SAT Reasoning Test
- A score of 550 or above on a College Board SAT Subject Test in Mathematics (level 1 or level 2)
- A score of 23 or above on the American College Testing (ACT) Mathematics Test
- A score of 3 or above on the College Board Advanced Placement Calculus AB or Calculus BC exam
- A score of 3 or above on the College Board Advanced Placement Statistics examination
- Completion and transfer to CSU of a college course that satisfies the requirement in Quantitative Reasoning, provided such a course was completed with a grade of C or better
- A result of Standard Exceeded: Ready for CSU college-level coursework in mathematics on the CAASPP exam

Advanced Placement Credit

California State University, Long Beach grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement (AP) Program of the College Board. Students who present scores of three or better will be granted up to six semester units (nine quarter units) of college credit for each AP course. Refer to the Advanced Placement Examination Credit table in the Academic Information section of this Catalog.

More specific information is available from the Office of Enrollment Services at (562) 985-5471 or a student’s major department.

International Baccalaureate Credit

Students with scores of 5 or higher (4 in certain subjects) in International Baccalaureate Higher Level courses will be awarded baccalaureate credit of 4 to 10 units, depending on course equivalency. Applicants to CSULB who wish to obtain lower-division course credit for completed International Baccalaureate Higher Level examinations must submit an official IB transcript. Course equivalency for Higher Level examinations completed with satisfactory scores is listed in the International Baccalaureate Examination Credit table in the Academic Information section of this catalog.

For questions or information, please call the Office of Enrollment Service at (562) 985-5471 or consult the department.

Immigration Requirements for Licensure

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), also known as the Welfare Reform Act, includes provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants as well as benefits for all illegal immigrants.

Students who will require a professional or commercial
license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. Information concerning these requirements is available from Academic Affairs, (562) 985-4128.

**CSU Immunization Requirements**

- **Entering CSU students are required to present proof of the following immunizations to the CSU campus they will be attending before the beginning of their first term of enrollment.**
  - Measles and Rubella (German Measles) Immunization: All new and readmitted students must provide proof of full immunization against measles and rubella prior to enrollment.
  - Hepatitis B Immunization: All new students who will be 18 years of age or younger at the start of their first term at a CSU campus must provide proof of full immunization against Hepatitis B before enrolling. Full immunization against Hepatitis B consists of three timed doses of vaccine over a minimum 4 to 6 months period. If you need further details or have special circumstances, please consult Student Health Services. Each incoming freshman who will be residing in on-campus housing will be required to return a form indicating that they have received information about meningococcal disease and the availability of the vaccine to prevent contracting the disease and indicating whether or not the student has chosen to receive the vaccination. These are not admission requirements, but are required of students as conditions of enrollment in CSU.
  - Meningococcal Disease Information: Each incoming freshman who will be residing in on-campus housing will be required to return a form indicating that they have received information about meningococcal disease and the availability of the vaccine. References: CSU Executive Order No. 803 Immunization Requirements / California Assembly Bill 1107.
  - Measles/Rubella and Hepatitis B clearance is obtained by presenting to Student Health Services 1) a medical immunization record showing dates of shots given, or 2) a record of blood tests showing immunity, or 3) receiving immunization(s). or 4) making a request for medical or personal religious exemption. Students may receive the immunizations from their health care provider, HMO, or Public Health Department at low cost. Immunizations may also be obtained at Student Health Services for a minimal charge for Measles and Rubella (German Measles) and vaccine Hepatitis B. Acceptable proof may be by records from high school, private health care providers, and local health departments.
  - For details on immunization requirements and where to obtain vaccines, call Student Health Services, go to www.csulb.edu/shs or go to the Student Health Center at the corner of Beach Drive and Merriam Way.

**Student Selection and Denial**

The University reserves the right to select its students and deny admission to the University or any of its programs as the University, in its sole discretion, determines the appropriate criteria based on an applicant’s suitability and the best interests of the University.

**Estimated Expenses**

Students should be prepared to meet expenses for fees within 30 days of registration. Books should be purchased when classes begin. Other expenses are ongoing and must be anticipated monthly and included in the total cost of attendance. Expenses generally go up an average three to four percent per year. Actual costs depend upon where the student lives and if there are dependent children. Financial aid programs are designed to help students meet standard University-related expenses during the academic year. The following budgets will assist students in planning costs for average expenses: (Costs include University fees, books and supplies, room and board, personal miscellaneous and transportation based on 2015-2016 CSULB budgets.)

- Undergraduate living at home with parents (nine month term) ...........................................$15,960
- Undergraduate living in a residence hall (nine month term) ...........................................$22,964
- Single undergraduate living off-campus (apartment, house nine month term, assumes shared housing).....$23,642

**Housing**

Living on campus is the ultimate way for students to enhance their college experience. Approximately 2,600 new and continuing students live in three residential colleges that support students personally, socially, and academically. The application period for new residents is typically early March - May 1 of each year.

All first-time freshmen are required to live in campus residence halls during their first year at CSULB unless they are 21 years or older or will be living at home with a parent(s) or legal guardian(s) during their entire freshmen year. Exemptions will be considered if verification is presented for students who are veterans or currently active duty; students who are married, domestically partnered, and/or have legally dependent children; students who have been independent and not claimed by their parent(s) for two calendar years; students carrying five units or less per semester for the entire academic year; students with special circumstances, such as medical or disability circumstances.

For more information about on and off-campus housing, call (562) 985-4187, go to www.csulb.edu/housing or go to the Housing Office at the corner of Atherton Street and Earl Warren Drive.

**Appeal of Admission Decision**

Section 89030.7 of the California Education Code requires that the California State University establishes specific requirements for appeal procedures for a denial of admission. Each CSU campus must publish appeal procedures for applicants denied admission to the University. The procedure is limited to addressing campus decisions to deny an applicant admission to the University. Admissions appeal procedures must address the basis for appeals, provide 15 business days for an applicant to submit an appeal, stipulate a maximum of one appeal per academic term, provide specific contact information for the
individual or office to which the appeal should be submitted, and indicate a time estimate for when the campus expects to respond to an appeal. The appeal procedures must be included in all denial of admission notifications to students, and must also be published on the campus website.

Information on CSULB's appeal process can be found at: http://www.csulb.edu/depts/enrollment/admissions/appeals.html.
FEES AND FINANCIAL AID

Schedule of Fees, 2016-2017

The CSU makes every effort to keep student costs to a minimum. Fees listed in published schedules or student accounts may need to be increased when public funding is inadequate. Therefore, CSU must reserve the right, even after fees are initially charged or initial fee payments are made, to increase or modify any listed fees. All listed fees, other than mandatory systemwide fees, are subject to change without notice, until the date when instruction for a particular semester or quarter has begun. All CSU listed fees should be regarded as estimates that are subject to change upon approval by the Board of Trustees, the Chancellor, or the Presidents, as appropriate. Changes in mandatory systemwide fees will be made in accordance with the requirements of the Working Families Student Fee Transparency and Accountability Act (Sections 66028 - 66028.6 of the Education Code).

Students who wish to drop units AND to subsequently or subsequently add the same number of units to accomplish this exchange may do so without financial penalty in Tuition Fees, provided this exchange in units meets all other signature requirements. This activity may not occur later than 14 days from the first day of instruction.

All Students

Application Fee (nonrefundable), payable by check or money order at time application is made: $55.00. These fees are subject to change. Check the current Schedule of Classes for fees each semester.

Mandatory systemwide fees are waived for those individuals who qualify for such exemption under the provisions of the California Education Code (see section on fee waivers).

2016-17 Basic Tuition Fees

Undergraduate Tuition Fee (per semester)

<table>
<thead>
<tr>
<th>Units</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 units or more</td>
<td>$2,736.00</td>
</tr>
<tr>
<td>0 units to 6.0 units</td>
<td>$1,587.00</td>
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</table>

Other Mandatory Registration Fees (per semester)

<table>
<thead>
<tr>
<th>Fee</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Fee</td>
<td>$3.00</td>
</tr>
<tr>
<td>Instructionally Related Activities Fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Associated Students Inc. Fee</td>
<td>$60.00</td>
</tr>
<tr>
<td>University Student Union Fee</td>
<td>$179.00</td>
</tr>
<tr>
<td>Student ID Card</td>
<td>$5.00</td>
</tr>
<tr>
<td>Student Health Services Fee</td>
<td>$45.00</td>
</tr>
<tr>
<td>Student Excellence Fund Fee</td>
<td>$173.00</td>
</tr>
<tr>
<td>SIRF fee</td>
<td>$2.00</td>
</tr>
</tbody>
</table>

Total Residency Fees Per Semester

<table>
<thead>
<tr>
<th>Units</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 to 6.0 units</td>
<td>$2,079.00</td>
</tr>
<tr>
<td>6.1 or more units</td>
<td>$3,861.00</td>
</tr>
</tbody>
</table>

2016-17 Graduate Business Professional Fee

Charge Per Unit ................................................. $254.00

The Graduate Business Professional Fee is paid on a per unit basis in addition to basic tuition fees and campus fees for the following graduate business programs: Master of Business Administration (M.B.A.), Master of Science (M.S.) in Accountancy.

Nonresident Students (U.S. and Foreign)

Nonresident Tuition (in addition to basic tuition fees and other systemwide fees charged all students) for all campuses:

Charge Per Unit ................................................. $372.00

The total nonresident tuition paid per term will be determined by the number of units taken.

Student Involvement and Representation Fee (SIRF)

On January 28, 2015 the CSU Board of Trustees established a new voluntary student fee, the Student Involvement and Representation Fee, which goes into effect in the fall 2015 term. This fee is charged to all students unless they choose to opt out of the fee, which can be done via your student portal. The fee amount is $2 per fall and spring term, and is used to support the student leadership, involvement, governance, and advocacy programs managed by the California State Student Association (CSSA). For more information, visit www.csustudents.org/our-priorities/sirf/

Optional Fees (per semester)

The following represents rates for the Fall 2016 and Spring 2017 semesters and are subject to change.

Motorcycle and Moped Parking (per semester) .......... $30.00
Automobile Parking (per semester) ...................... $123.00
Replacement Parking Permit ................................ $20.00
Other Fees and Charges (non-refundable)
Late Registration..........................................................$25.00
Application and Reapplication Fee.........................$55.00
Diploma/Commencement Fee ................................$45.00
Missed Deadline Fee..................................................$10.00
Dishonored Check and Echeck Charge .....................$20.00
(If the Dishonored Check was for payment of registration
fees, the Late Registration Fee may also apply)
Disputed Credit Card Charge ........................................$20.00
Complete transcript of record ....................................$4.00
Expedited Transcript Fee ............................................$10.00
Replacement of Student ID Card................................$5.00
Late Payment Fee .....................................................$10.00
Enrollment Deposit ......................................................$150.00
Installment Plan Fee ..................................................$33.00
Refund Processing Fee ..............................................$10.00
Tuition Deferment Fee ..............................................$15.00

Parking Fee
Parking at CSULB is limited. Parking permits are required
24 hours a day, Monday through Sunday, and the vehicle
code is enforced at all times. For additional information
please go to www.csulb.edu/parking or contact the Parking
Office at (562) 985-4146.

To request a partial or full refund, attach all parking
documents, permits stickers, decals and gate cards to the
refund application and return to Student Account Services,
Brotman Hall 148. Refer to the Schedule of Classes for
deadline information. If parking documents are not available
or have not been received, students MUST contact the
Parking Administration Office located on Merriam Way
adjacent to the parking structure. If any of these parking
documents are affixed to the vehicle, their removal by a
campus security officer or under the officer’s direction, shall
constitute appropriate return. Attach all parking documents,
permits stickers, decals and gate cards to the refund
application and return to Student Account Services, BH 148.
There shall be no refund if such amount is less than $10.
There shall be no refund for:
1. Coin operated parking meters.
2. Daily permits for coin operated parking gates.
3. Special events.
4. Fees paid by monthly payroll deductions.

Auditors
Students enrolled as auditors, not for credit, are exempt
from payment of the application fee, but must pay fees
appropriate to the number of units taken.

Payments
Total fees include the State University Fee, Non-Resident
Tuition, other campus mandatory fees as well as course
fees. Payment of fees is required 30 calendar days after
registration, or approximately 12 days prior to the first day
of instruction, whichever is earlier. For payment deadlines,
refer to the Schedule of Classes. Payment must be received
by the due date or the student’s registration request may be
cancelled; postmarks are not accepted. Students who have
not completed their registration before 12 days prior to the
first day of instruction, must make payment within 24 hours of
their registration.

Students are encouraged to make immediate payment to
confirm their enrollment requests as classes fill quickly due to
CSULB’s high enrollment.

Payment can be satisfied by cash, check, Echeck, credit
card, Financial Aid deferments, actual Financial Aid awards,
approved payment plans, other approved fee deferments,
approved private scholarships, approved tuition waivers, or
confirmed third party sponsors. Payments can be made in the following ways:
• ECheck (self service over the web at http://my.csulb.edu)
• Credit Card
Payment of student fees can be made by credit card
(Discover, American Express, VISA or MASTERCARD -
only) at:
  -- Self-Service/Smart Pay -- over the web at
    http://my.csulb.edu (Smart Pay charges a 2.75%
    service charge)

Payment of fees CANNOT be made if disputed credit
card charges exist on your account. Contact Student
Account Services at (562) 985-8280 for further
information.

• Check
  – In person at the Cashiers Windows, Brotman Hall 148
  – Mailed to the Cashiers, Brotman Hall 148, CSULB, 1250
    Bellflower Blvd., Long Beach, CA 90840-0103
• Cash
  – In person only at the Cashiers Window, Brotman Hall 148

Installment Payment Plan
The Installment Payment Plan is available to all eligible
students except financial aid recipients who have sufficient
funds to cover the State University Fee. A $33 non-refundable
charge is assessed to defrar the administrative costs of the
program. A 9% service charge is assessed to the deferred
balance for non-resident tuition and international Visa
students. Payment Plans are available online at MyCSULB
under the Student Center/Finances/Enroll in Payment Plan.
Students must come in person to the Cashier’s Office to enroll
in the non-resident installment plan.

Refund of Mandatory Fees, Including
Nonresident Tuition
Regulations governing the refund of mandatory fees,
including nonresident tuition, for students enrolling at the
California State University are included in Section 41802
of Title 5, California Code of Regulations. For purposes
of the refund policy, mandatory fees are defined as those
systemwide and campus fees that are required to be paid
in order to enroll in state-supported academic programs at
the California State University. Refunds of fees and tuition
charges for self-support, special session, and extended
education programs or courses at the California State
University are governed by a separate policy established by
the University, available from the College of Continuing and
Professional Education.

In order to receive a full refund of mandatory fees, less an
administrative charge established by the campus, including
nonresident tuition, a student must cancel registration or drop
all courses prior to the first day of instruction for the term.
Information on procedures and deadlines for canceling
registration and dropping classes is available in the
Schedule of Classes.
For state-supported semesters, quarters, and non-
standard terms or courses of four (4) weeks or more, a
student who withdraws during the term in accordance
with the university's established procedures or drops all
courses prior to the campus-designated drop period will
receive a refund of mandatory fees, including nonresident
tuition, based on the portion of the term during which the
student was enrolled. No student withdrawing after the 60
percent point in the term will be entitled to a refund of any
mandatory fees or nonresident tuition.
A student who, within the campus designated drop period
and in accordance with the campus procedures, drops units
resulting in a lower tuition and/or mandatory fee obligation
shall be entitled to a refund of applicable tuition and
mandatory fees less an administrative charge established
by the campus.
For state-supported non-standard terms or courses of
less than four (4) weeks, no refunds of mandatory fees and
nonresident tuition will be made unless a student cancels
registration or drops all classes, in accordance with the
university's established procedures and deadlines, prior to
the first day of instruction for state-supported non-standard
terms or courses or prior to the first meeting for courses of
less than four (4) weeks.
Students will also receive a refund of mandatory
fees, including nonresident tuition, under the following
circumstances:
• The fees were assessed or collected in error;
• The University canceled the course for which the fees
were assessed or collected;
• The University makes a delayed decision that the
student was not eligible to enroll in the term for which
mandatory fees were assessed and collected and
the delayed decision was not due to incomplete or
inaccurate information provided by the student; or
• The student was activated for compulsory military
service.
Students who are not entitled to a refund as described
above may petition the university for a refund demonstrating
exceptional circumstances and the chief financial officer of
the university or designee may authorize a refund if he or
she determines that the fees and tuition were not earned by
the University.
Information concerning any aspect of the refund of fees
may be obtained from the Student Account Services Office.
Refunds of Registration and Tuition Fees
Details regarding Registration and Tuition Fee Refunds
may be found in the on-line Schedule of Classes. As this
information may differ from one semester to another,
students are advised to refer to the Schedule of Classes for
that particular semester. Students must complete the class
drop or withdrawal process prior to becoming eligible for
any credit of fees. The amount to be refunded is determined
by the effective withdrawal or drop date. In addition, any
other outstanding financial obligations that the student may
have incurred will be deducted from any credits due to the

student before a refund is processed. Refund deadlines are
reflected in the Schedule of Classes. A $10.00 processing
fee will be withheld from the refunds.

Details regarding refunds due to Medical Withdrawals
can be found in the Schedule of Classes.
Further details regarding fees that may be refunded
and the circumstances under which they may be refunded
may be obtained by consulting the California Code of
Regulations, Title V, in the following sections:
• Registration and Tuition Fees – Section 41802
• Parking Fees – Section 42201
• Housing Fees – Section 42019
The following fees are non-refundable: Late Fees,
Application Fees, Disputed Credit Card Fees, Dishonored
Check Fees, Student I.D. Card Replacement Fees, Late
Payment Fees.

Special Circumstances Refunds
There are two levels of financial appeals. They are as
follows:
1. Request for Refunds After Published Deadlines:
Students who withdraw or drop in units after the
deadlines detailed in the Schedule of Classes have
passed, may appeal for a Special Circumstances
Refund (http://daf.csulb.edu/forms/financial/bursar/
sas/SpecialCircumstancesRefund.php) based on the
following:
• Campus Variation
• Compulsory Military Service
• Death of Student
• Fees Collected in Error
Further information regarding Special Circumstances
Refunds by calling the Student Account Services Office at
(562) 985-8280.
2. Financial Appeals Independent Review Committee
(F.A.I.R.)
If a student wishes to petition the decision made at the
first appeal level, a written request must be submitted to the
F.A.I.R. Committee (BH 155) for review.
This Committee has been approved by the President as
the final financial appeal level. It consists of representatives
from various University Offices. F.A.I.R. will only review
appeals for the current academic year.

Determination of Residency for Tuition
Purposes
University requirements for establishing residency for
tuition purposes are independent from those of other types
of residency, such as for tax purposes, or other state or
institutional residency. These regulations were promulgated
not to determine whether a student is a resident or
nonresident of California, but rather to determine whether a
student should pay University fees on an in-state or out-of-
state basis. A resident for tuition purposes is someone who
meets the requirements set forth in the Uniform Student
Residency Requirements. These laws governing residency
for tuition purposes at the California State University
are California Education Code sections 68000-68085,
68120-68133, and 89705-89707.5, and California Code
of Regulations, Title 5, Subchapter 5, Article 4, sections
41900- 41916. Residency material can be viewed on the
internet by accessing the website at www.calstate.edu/sas/
residency.

Each campus’s Admissions Office is responsible for determining the residency status of all new and returning students based on the Application for Admission, Residency Questionnaire, Reclassification Request Form, and, as necessary, other evidence furnished by the student. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

Generally, establishing California residency for tuition purposes requires a combination of physical presence and intent to remain indefinitely. An adult who, at least 366 days prior to the residency determination date for the term in which enrollment is contemplated, can demonstrate both physical presence in the state combined with evidence of intent to remain in California indefinitely may establish California residency for tuition purposes. A minor normally derives residency from the parent(s) they reside with or most recently resided with.

Evidence demonstrating intent may vary from case to case but will include, and is not limited to, the absence of residential ties to any other state, California voter registration and voting in California elections, maintaining California vehicle registration and driver’s license, maintaining active California bank accounts, filing California income tax returns and listing a California address on federal tax returns, owning residential property or occupying or renting an apartment where permanent belongings are kept, maintaining active memberships in California professional or social organizations, and maintaining a permanent military address and home of record in California.

Nonresident students seeking reclassification are required to complete a supplemental questionnaire that includes questions concerning their financial independence. Financial independence is required, along with physical presence and intent, to be eligible for reclassification. Financial independence is established if in the calendar year the reclassification application is made and in any of the three calendar years preceding the reclassification the student:

- has not and will not be claimed as an exemption for state and federal tax purposes by his/her parent;
- has not and will not receive more than seven hundred and fifty dollars ($750) per year in financial assistance from his/her parent; and
- has not lived and will not live longer than six (6) weeks in the home of his/her parent.

A nonresident student who has been appointed as a graduate student teaching assistant, a graduate student research assistant, or a graduate student teaching associate on any CSU campus and is employed on a 0.49 or more time basis is exempt from the financial independence requirement.

Non-citizens establish residency in the same manner as citizens, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. Exceptions to the general residency requirements are contained in California Education Code sections 68070-68085 and California Code of Regulations, Title 5, Subchapter 5, Article 4, sections 41906-41906.6, 41910 and include, but are not limited to, members of the military and their dependents, certain credentialed employees of school districts and most students who have attended three or more years of high school (grades 9-12) in California and graduated from a California high school or attained the equivalent of graduation. Whether an exception applies to a particular student cannot be determined before the submission of an application for admission and, as necessary, additional supporting documentation. Because neither campus nor Chancellor’s Office staff may give advice on the application of these laws, applicants are strongly urged to review the material for themselves and consult with a legal advisor.

Residency determination dates are set each term. They are:

<table>
<thead>
<tr>
<th>QUARTER TERM CAMPUSES</th>
<th>SEMESTER TERM CAMPUSES</th>
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<tbody>
<tr>
<td>Fall - September 20</td>
<td>Fall - September 20</td>
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<tr>
<td>Winter - January 5</td>
<td>Winter* - January 5</td>
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<tr>
<td>Spring - April 1</td>
<td>Spring - January 25</td>
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<tr>
<td>Summer - July 1</td>
<td>Summer - June 1</td>
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*Applies only to winter term at CSU Stanislaus

CalState TEACH operates on a trimester system. The residency determination dates for CalState TEACH are as follows:

- Fall - September 20
- Spring - January 5
- Summer - June 1

The campus Office of Enrollment Services is responsible for determining the residency status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission, Residency Questionnaire, and Reclassification Request Form, and, as necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish eligibility for resident classification will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residency for tuition purposes at the California State University is found in California Education Code, sections 68000-68090, 68120-68134, and 89705-89707.5, and California Code of Regulations, Title 5, Subchapter 5, Article 4, sections 41900-41916. This material can be viewed on the Internet by accessing the California State University’s website at www.calstate.edu/GC/resources.shtml.

Legal residency may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residency. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous
occupancy or renting of an apartment on a lease basis where one’s permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator’s license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, an unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of an unmarried minor who has a parent living cannot be changed by the minor's own act, by the appointment of a legal guardian or by the relinquishment of a parent's right of control.

A married person may establish his or her residence independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required to complete a supplemental questionnaire including questions concerning their financial dependence on parents who cannot satisfy University requirements for classification as residents for tuition purposes, which will be considered along with physical presence and intent in determining reclassification.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term and is the date from which residence is determined for that term. Residence determination dates are: Fall – September 20; Spring – January 25; Summer – June 1.

There are exceptions from nonresident tuition including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues until the student has resided in the state the minimum time necessary to become a resident;

2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time. The exception continues until the student has resided in the state the minimum time necessary to become a resident;

3. Persons below the age of 19 who have lived with and been under the continuous direct care and control of an adult or adults, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year. The exception continues until the student has resided in the state the minimum time necessary to become a resident;

4. Dependent children and spouse of persons in active military service stationed in California on the residence determination date. Graduate students are eligible for this exception for one academic year of continuous enrollment, the length of time necessary to establish California residency. There is no time limitation on this exception unless the military person transfers out of California or retires from military service. If either of those events happen, the student's eligibility for this exception continues until he or she resides in the state the minimum time necessary to become a resident;

5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception is available to the graduate student military member for no more than one academic year of continuous enrollment, the length of time necessary to establish California residency. The undergraduate student military member is eligible for this exception for as long as he or she is stationed in California as an active member of the military.

6. Military personnel in active service in California for more than one year immediately prior to being discharged from the military. Eligibility for this exception runs from the date the student is discharged from the military until the student has resided in state the minimum time necessary to become a resident.

7. Dependent children of a parent who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as continuous residence is maintained at an institution.

8. Graduates of any school located in California that is operated by the United States Bureau of Indian Affairs, including, but not limited to, the Sherman Indian High School. The exception continues so long as continuous attendance is maintained by the student at an institution.

9. Certain credentialed, full-time employees of California school districts;

10. Full-time State University employees and their children and spouses; State employees assigned to work outside the State and their children and spouses. This exception continues until the student has resided in state the minimum time necessary to become a California resident;

11. Children of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of law enforcement or fire suppression duties;

12. Certain amateur student athletes in training at the United States Olympic Training Center in Chula Vista, California. This exception continues until the student has resided in state the minimum time necessary to become a California resident;

13. Federal civil service employees and their natural or adopted dependent children if the employee has moved to California as a result of a military mission realignment action that involves the relocation of least 100 employees. This exception continues until the student has resided in state the minimum time necessary to become a resident;

14. State government legislative or executive fellowship program enrollees. The student ceases to be eligible for
this exception when he or she is no longer enrolled in the qualifying fellowship.

15. Persons who have attended a California high school for at least three years and have graduated from a California high school or equivalent. Please Note: Those who hold non-immigrant visas (i.e. F, J, B, H, etc.) are not eligible for this exception. Those seeking this exception must fill out the Student Affidavit for Exemption of Nonresident Tuition form, which is available at www.csulb.edu/enrollment. Once this exception is approved, it is not necessary to reapply each semester. This is the only exception for which this is true.

Students classified as non-residents may appeal a final campus decision within 120 days of notification by the campus. A campus residency classification appeal must be in writing and submitted to:

The California State University Office of General Counsel
401 Golden Shore, 4th Floor Long Beach, CA 90802-4120

The Office of General Counsel can either decide the appeal or send the matter back to the campus for further review. Students incorrectly classified as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is also subject to discipline pursuant to Section 41301 of Title 5 of the California Code of Regulations.

Resident students who become nonresidents or who no longer meet the criteria for an exception must immediately notify the Admissions Office. Changes may have been made in the rate of nonresident tuition and in the statutes and regulations governing residency for tuition purposes in California between the time this information is published and the relevant residency determination date. Students are urged to review the statutes and regulations stated above.

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.

Changes in residency for tuition purposes are not automatic. Students wishing to apply for residence reclassification must submit a Residence Reclassification Request Form and supporting documentation. The filing period for a spring term is from October 1 through November 1; the filing period for a fall or summer term is from March 1 through April 1. A ten-dollar late filing fee must accompany requests filed after the last date of the filing period. Under no circumstances will a reclassification request be accepted for a term that has ended.

Exceptions from nonresident tuition are valid for one semester only. Students must reapply for an exemption each semester. Forms are located at the Office of Enrollment Services, BH 101.

Financial Obligations and Holds

University offices, including but not limited to the Library, may request that a student reimburse the University for an item that was not returned, returned late or damaged; or they may impose other charges. The requesting office may ask the Student Account Services Office to post this charge to the student’s account. Once posted it becomes an obligation to the student. Student Account Services will be able to provide general information concerning obligations. The student will be directed to the appropriate department in which to inquire about the obligation. Until all obligations are paid, or a written release from the originating office is received by the Student Account Services Office, a financial hold will be placed on academic records and the student is restricted from receiving University services, including but not limited to registration, grades, and transcripts. If the obligation continues to appear on the University reports, the student’s name will be submitted to the Franchise Tax Board. In this case, the student or former student, permanently loses the privilege of submitting checks as payment for fees or services. (Acceptable methods of payment are cash, cashiers’ check or money order). The State then has the authority to withhold amounts owed to the University from any tax refund to which the student may be entitled.

To pay your balance due – Cashier’s Office, BH 148.

For information regarding the amount due call Student Account Services at (562) 985-8280.

Dishonored Checks / EChecks

Students paying fees by personal check or Echeck are hereby given notice that if the unpaid check is returned dishonored to the University FOR ANY REASON, a $20.00 fee is charged to the student's account. The University has no control whether the bank sends checks through a second time for clearing. The check should be honored upon first presentation to the bank.

In compliance with California Code of Regulations, Title V, Section 42381, students with dishonored checks may be disenrolled from classes and may be required to reapply for admission to the University. Also, future services including, but not limited to, transcripts, grades, and future registration may be withheld.

Dishonored checks are monitored in the student's record. Any student with a record of two (2) dishonored checks or Echecks will lose check writing privileges with the University and future payments by personal check will not be accepted.

Disputed Credit Card Charge

Students are strongly encouraged to contact Student Account Services at (562) 985-8280, before disputing a credit card charge through the bank. Upon receipt of a disputed credit card charge, the amount of the credit card charge plus a $20.00 fee becomes the STUDENT’S financial obligation to the University. Payment of Registration fees with a credit card charge which has later been disputed may result in disenrollment and in withholding of future University services including, but not limited to, transcripts, grades, and future registration (California Code of Regulations, Title V, Section 42381). Students who are disenrolled may be required to reapply for admission to the University.

Fees and Debts Owe to the Institution

Should a student or former student fail to pay a fee or a debt owed to the institution, the institution may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Title 5,
Prospective students who register for courses offered by the university are obligated for the payment of fees associated with registration for those courses. Failure to cancel registration in any course for an academic term prior to the first day of the academic term gives rise to an obligation to pay student fees including any tuition for the reservation of space in the course.

The institution may withhold permission to register or to receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. The institution may also report the debt to a credit bureau, offset the amount due against any future state tax refunds due the student, refer the debt to an outside collection agency and/or charge the student actual and reasonable collection costs, including reasonable attorney fees if litigation is necessary, in collecting any amount not paid when due.

If a person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact Enrollment Services, (562) 985-5471, on campus at BH-101 or online at http://www.csulb.edu/depts/enrollment/. Enrollment Services, or another office on campus to which the business office may refer the person, will review all pertinent information provided by the person and available to the campus and will advise the person of its conclusions.

Financial Assistance Information

There are a variety of financial aid programs to assist students and families with meeting expenses. The following information concerning student financial assistance may be obtained from Financial Aid, BH 101, (562) 985-8403 or by visiting the website at www.csulb.edu/enrollment:

1. A description of the federal, state, institutional, local, and private student financial assistance programs available to students who enroll at CSULB;
2. For each aid program, a description of procedures and forms by which students apply for assistance, student eligibility requirements, criteria for selecting recipients from the group of eligible applicants, and criteria for determining the amount of a student’s award;
3. A description of the rights and responsibilities of students receiving financial assistance, including federal Title IV student assistance programs, and the criteria for continued student eligibility under each program;
4. The satisfactory academic progress standards that students must maintain for the purpose of receiving financial assistance and criteria by which a student who has failed to maintain satisfactory progress may reestablish eligibility for financial assistance;
5. The method by which financial assistance disbursements will be made to students and the frequency of those disbursements;
6. The way the school provides for Pell-eligible students to obtain or purchase required books and supplies by the seventh day of a payment period and how the student may opt out;
7. The terms of any loan received as part of the student's financial aid package, a sample loan repayment schedule, and the necessity for repaying loans;
8. The general conditions and terms applicable to any employment provided as part of the student's financial aid package;
9. The terms and conditions of the loans students receive under the Direct Loan and Perkins Loan Programs;
10. The exit counseling information the school provides and collects for student borrowers; and
11. Contact information for ombuds offices available for disputes concerning federal, institutional and private loans.

Information concerning the cost of attending California State University, Long Beach is available from the Office of Financial Aid, BH 101, (562) 985-8403, and includes tuition and fees; the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs.

Information concerning the refund policies of California State University, Long Beach for the return of unearned tuition and fees or other refundable portions of institutional charges is available from the Controller, BH 365.

Information concerning policies regarding the return of federal Title IV student assistance funds as required by regulations is available from the Office of Financial Aid, BH 101, (562) 985-8403.

Information concerning athletic opportunities available to male and female students and the financial resources and personnel that CSULB dedicates to its men's and women's teams may be obtained from Cindy Masner, Sports Athletics and Recreation, 562-985-8527.

Information concerning teacher preparation programs at CSULB, including the pass rate on teacher certification examinations, may be obtained from either Elementary/Special Education Admission Advising, Bob and Barbara Ellis Education Building - Room 53, (562) 985-9259, Elementary Education: http://www.ced.csulb.edu, Special Education: http://www.ced.csulb.edu/special-education, or Single Subject Office, Bob and Barbara Ellis Education Building - Room 53, (562) 985-7623, http://www.ced.csulb.edu/single-subject.

The Office of Financial Aid at CSULB provides both financial and advisory assistance to enable students to pursue a quality education despite increasing costs. It administers federal Title IV student assistance funds as required by federal Title IV student assistance programs, and the criteria for continued student eligibility under each program;

Financial Aid Application

The appropriate financial aid application must be completed in order for a student to be considered for financial aid at CSULB:

- Federal aid eligible students (citizens & eligible non-citizens) should complete the Free Application for Federal Student Aid (FAFSA) - at www.fafsa.ed.gov.
- Students with an AB540 status, who are not eligible for federal aid, should complete the California Dream Act Application at www.dream.csac.ca.gov.

To ensure CSULB receives the application information, be sure to list CSULB and the School Code 001139 on the college release section. The application must be completed each year; students are encouraged to submit the application online; however, alternate submission instructions are available from the Office of Financial Aid, BH 101, (562) 985-8403, and includes tuition and fees; the estimated costs of books and supplies; estimates of typical student room, board, and transportation costs; and, if requested, additional costs for specific programs.
provided on the above websites for those students who are unable to submit the application electronically.

In addition to the FAFSA / Dream Act Application, new applicants for Cal Grants (including entering freshmen) must submit a Cal Grant GPA Verification Form by the March 2nd Priority Filing deadline. Forms are available for download from the California Student Aid Commission website at www.csac.ca.gov.

Detailed information about CSULB financial aid programs is available from the Office of Financial Aid website (www.csulb.edu/financialaid). The submission of various supporting documents may be required, including (but not limited to): (1) verification of all taxable and nontaxable income; (2) household information; (3) other clarifying information requested by the Office of Financial Aid.

Upon receipt of all documentation, the applicant’s file is evaluated to determine eligibility for financial aid. A student who submits a financial aid application (and all requested supporting documents) is automatically considered for all aid programs for which he/she qualifies.

Students expecting to receive a financial aid refund are required to enrolled in eRefund - CSULB’s electronic refund process (bank account information will be required).

**Financial Aid Eligibility**

To determine financial aid eligibility, a standard needs analysis system is used. This system allows the Office of Financial Aid to analyze family financial strength and ability to contribute toward the cost of attending CSULB. Subtracted from the student’s educational expenses to arrive at financial need are: the parental contribution, the applicant’s (and spouse’s) contribution from employment, savings, a portion of assets and other resources. As long as program funds permit, a “package” consisting of various types of funds (grants, loans, work-study) is awarded to meet full need.

Award offers are made based on an assumption of full-time enrollment. Students enrolled at least half-time are eligible to receive financial aid, however, some awards may be prorated based on actual enrollment (half-time enrollment is considered to be 6 units for Undergraduate students; 4 units for Master's Degree Students; 3 units for Doctoral students).

**Notification of Awards**

Upon determination of eligibility, new students are sent notice of a financial aid offer. Students are also notified if determined to be ineligible.

It is the goal of CSULB to package aid that fully meets the need of all qualified aid applicants. However, in the event that funds are insufficient, priority will be given to students whose financial aid files meet the first priority deadlines and who demonstrate the highest need.

**Academic Responsibilities**

Aid recipients must meet the following Satisfactory Academic Progress (SAP) requirements:

1. The GPA Standard
2. The Pace Standard
3. The Maximum Time Frame Standard

Aid eligibility is governed by the number of units attempted and successfully completed with a passing grade ("D" or better). Students who do not satisfactorily complete enough of their attempted units, or who fail to meet the GPA standard, may be placed on financial aid warning or disqualified from receiving aid.

Most aid recipients enroll in a full-time program of study carrying 12 undergraduate units or 8 units for Master's Degree Students; 6 units for Doctoral students (500-level courses or higher) per semester. To be considered an eligible financial aid applicant, students cannot have attempted more academic units than an established "unit limit." At CSULB, the established unit limit is 150% of the published length of an academic program measured in units.

For complete information on CSULB’s Satisfactory Academic Progress Policy, please visit http://www.csulb.edu/sappolicy.

**Financial Responsibilities**

If you are determined ineligible for financial aid, you are responsible for the payment of any University obligations you may have, including fees.

Students who are receiving financial aid funds and completely withdraw from all of their classes, may have to repay all or part of the award they received. Students should check with the financial aid office to find out if they will owe a repayment, before withdrawing from all of their classes.

**Campus Financial Aid Programs**

**Federal Perkins Loans**

The Federal Perkins Loan is a federal program providing long-term, low interest loans to both graduate and undergraduate students. Repayment of loan principal and interest begins nine months after you cease to be enrolled at last half-time.

**Federal Supplemental Educational Opportunity Grant (SEOG)**

The SEOG is a federally funded grant program for undergraduate students who are admitted to a CSU campus or with organizations off campus.

**Federal Work-Study (FWS)**

The work-study program is a federally funded employment program to expand part-time job opportunities for students with financial need. Students apply for jobs according to their skills, career and academic goals. Positions are available on campus or with organizations off campus.

**Educational Opportunity Program Grants (EOP)**

EOP grants are provided by the State of California for undergraduate students who are admitted to a CSU campus through the Educational Opportunity Program and demonstrate the same need criteria as federal financial aid. For further information, contact the EOP Admissions Office at (562) 985-4288 or http://www.csulb.edu/eop, or at the EOP Office at LA1-103.

**State University Grant (FAFSA & Dream Act Applicants)**

The State University Grant is funded by the State of California to assist students whose ability to attend postsecondary institutions is jeopardized due to financial constraints. The award covers up to the amount of the State Tuition Fee. Students must be residents of California,
demonstrate financial need, and be assessed state tuition fees to be eligible for this award.

Please review the complete CSULB State University Grant Policy (including lifetime eligibility limitations) at www.csulb.edu/sugpolicy).

**Graduate Research Fellowships**

The Graduate Research Fellowship is funded by the California State University to graduate students who have experienced educational or economic disadvantages or hardships. Applicants must be California residents, demonstrate financial need and be accepted into or continuing in a full-time graduate program. Limited awards are made through a competitive process.

**Scholarship Information**

Scholarships at CSULB are administered by several offices, including the Office of Financial Aid, the Center for Scholarship Information, and some academic departments. Scholarships may be awarded to qualified students based upon academic achievement, leadership, financial need or a specific area of study and/or ability. Students may access a database on- and off-campus scholarships and receive guidance on the entire scholarship process, including how to search and/or apply for scholarships, at the Center for Scholarship Information. For more information, call (562) 985-2549, go to www.csulb.edu/scholarships or visit the Center at the University Student Union, Room 238.

**President's Scholars' Program**

The President's Scholars Program continues to be the premier scholarship of its kind in the state. Recognized by the California Legislature, the program provides California high school seniors who are qualifying valedictorians from accredited high schools or national scholars (National Merit Semifinalists/Finalists, National Achievement Program Semifinalists/Finalists, and National Hispanic Recognition Scholars) an opportunity to compete for an exceptional package that includes:

- Full payment of in-state tuition and general student fees
- Highest priority registration
- Paid housing in campus residence halls
- Sponsored meal plan (for National Merit Scholars only)
- Automatic acceptance to the University Honors Program
- Personalized academic advising
- Exclusive access to the President's Scholars Center, including computer lab and study lounge
- Opportunity for international study abroad programs
- Special recognition at commencement with the President's Scholar medallion
- Four-year degree completion option
- Campus student parking privileges
- Annual book allowance

For more information, call (562) 985-5358, go to www.csulb.edu/presidents-scholars or visit University Outreach and School Relations at Brotman Hall, Room 289.

**Outside Student Aid Programs**

The following programs are administered by other agencies and coordinated by the Office of Financial Aid:

**Cal Grant A (FAFSA & Dream Act Applicants)**

Cal Grant A is awarded by the California Student Aid Commission to entering and continuing undergraduate students who are California residents. Cal Grant A awards are based on academic achievement financial need, and the enrollment status (full-time, three-quarter time, or half-time). Grants are used to offset state tuition fees.

**Cal Grant B (FAFSA & Dream Act Applicants)**

Cal Grant B is awarded by the California Student Aid Commission to entering undergraduate students who have not completed more than one semester of college. Applicants must be California residents, and must demonstrate substantial financial need. Grants vary depending on educational costs. Fees, in addition to the basic award, are normally provided in the second, third, and fourth years. The grant may be renewable for up to four years.

**California Middle Class Scholarship (MCS)**

The Middle Class Scholarship (MCS) is awarded by the California Student Aid Commission to new and continuing undergraduate and credential students with family incomes and assets up to $150,000 attending a CSU or UC. The MCS helps to offset a portion of a student's state tuition fee.

To be eligible for the MCS, a student must:

- Be a California resident or eligible AB 540 student
- File a FAFSA or California Dream Application by the March 2 deadline
- Be enrolled at least half-time
- Meet Satisfactory Academic Progress standards

Any federal, state, or institutionally administered student financial aid grants or fee sponsorships/waivers received by an eligible student may impact the amount of award received.

**Federal Pell Grant Program**

The Pell Grant Program is a federal aid program designed to provide financial assistance to eligible undergraduate students who demonstrate financial need. Teacher credential students in an eligible program may also qualify. Once a student is determined eligible for the Pell Grant, the amount of the award is based on the student's cost of attendance, and enrollment on either a half-time, three-quarter time, or full-time basis. Eligibility is limited to U.S. citizens and eligible non-citizens. Students are limited to a total of six full-time years (600%) of Pell Grant eligibility.

**Federal Direct Loan**

The Federal Direct Loan Program enables eligible students to obtain loans from the federal government. During the time the student is enrolled at least half-time, the federal government pays the interest on the cumulative amount borrowed if the loan is based on financial need (subsidized). An unsubsidized Federal Direct Loan is not based on financial need. Once funds are disbursed, the student is responsible for interest due on the loan while in school. Federal regulations allow any student to apply...
for the Federal Direct Loan provided the student: 1) is enrolled and in good standing or has been accepted for enrollment at an eligible school; 2) is enrolled as at least a half-time student; 3) is a citizen of the United States or an eligible non-citizen; 4) is registered with Selective Service (if required); 5) is working toward a degree or certificate; 6) is making satisfactory academic progress; and 7) does not owe a refund on a federal grant and is not in default on a federal education loan.

**Federal PLUS Loan**

The Federal PLUS loan program provides government-insured loans to graduate/doctoral level students and parents of dependent undergraduate students. The PLUS loan is a non-need based unsubsidized loan meaning interest begins accruing on the amount disbursed from the date of disbursement. Eligibility for the PLUS loan is based upon the credit history of the borrower.

**The Teacher Education Assistance for College and Higher Education (TEACH) Grant**

The TEACH Grant is designed for students who intend to teach full time in a high-need field at a public or private elementary or secondary school that the U.S. Department of Education has designated as having a high concentration of students from low-income families. In exchange for the TEACH grant, recipients agree to teach for at least four years within eight years of finishing their teacher preparation program. Grant recipients who are unable to complete any of the service requirements of the TEACH Grant Program will have their grants converted to a Federal Unsubsidized Stafford Loan.

Information, brochures, advising, and application forms are available from the Office of Financial Aid at BH 101, or phone (562) 985-8403, and from the College of Education at Bob and Barbara Ellis Education Building - Room 54, (562) 985-9259.

**Fee Waivers and Exemptions**

The California Education Code provides for the waiver of mandatory statewide tuition fees as follows:

Section 66025.3 – Dependent eligible to receive assistance under Article 2 of Chapter 4 of Division 4 of the Military and Veterans Code; child of veteran of the United States military who has a service-connected disability, has been killed in service, or has died of a service-connected disability, and meets specified income provisions; dependent, or surviving spouse (who has not remarried) of a member of the California National Guard who, in the line of duty, and while in the active service of the state, was killed, died of a disability resulting from an event that occurred while in the active service of the state, or is permanently disabled as a result of an event that occurred while in the active service of the state; and undergraduate student who is a recipient of or child of a recipient of a Medal of Honor, under 27 years old, meets the income restriction and California residency requirement;

Section 68120 – Qualifying children and surviving spouses/registered domestic partners of deceased public law enforcement or fire suppression employees who were California residents and who were killed in the course of active law enforcement or fire suppression duties (referred to as Alan Pattee Scholarships); and

Section 68121 – Qualifying students enrolled in an undergraduate program who are the surviving dependent of any individual killed in the September 11, 2001 terrorist attacks on the World Trade Center in New York City, the Pentagon building in Washington, D.C., or the crash of United Airlines Flight 93 in southwestern Pennsylvania, if the student meets the financial need requirements set forth in Section 69432.7 for the Cal Grant A Program and either the surviving dependent or the individual killed in the attacks was a resident of California on September 11, 2001. Students who may qualify for these benefits should contact the Admissions/Registrar’s Office for further information and/or an eligibility determination.

The California Education Code provides for the following nonresident tuition exemptions:

Section 68075.7 – Nonresident students are exempt from paying nonresident tuition or any other fee that is exclusively applicable to nonresident students if they (1) reside in California, (2) meet the definition of "covered individual" as defined in subsection (c) of Section 3679 of Title 38 of the United States Code, as that provision read on July 1, 2015; and (3) are eligible for education benefits under either the federal Montgomery GI Bill-Active Duty program or the Post-9/11 GI Bill program.

Section 68122 – Students who are victims of trafficking, domestic violence, and other serious crimes who have been granted T or U visa status are exempt from paying nonresident tuition if they (1) attended high school in California for three or more years; (2) graduated from a California high school or attained the equivalent; and (3) registered as an entering student or are currently enrolled at a CSU campus.

Section 68130.5 – Students who are not residents of California are exempt from paying nonresident tuition if they (1) attended high school in California for three or more years; (2) graduated from a California high school or attained the equivalent; and (3) registered as an entering student or are currently enrolled at a CSU campus. In addition, students without lawful immigration status will be required to file an affidavit stating that they have filed an application to legalize their immigration status, or will file an application as soon as they are eligible to do so. This exemption from paying nonresident tuition does not apply to students who are nonimmigrant aliens within the meaning of 8 U.S.C. 1101(a)(15), except as provided by Section 68122 above.

Students who may qualify for these benefits should contact the Admissions/Registrar’s Office for further information and/or an eligibility determination.

**Bureau of Indian Affairs (BIA) Grants**

Students who are at least one-fourth American Indian, Eskimo, or Aleut may apply for a BIA grant. The amount of the grant depends upon financial need and availability of funds. Students must complete an application for financial aid and then contact their tribe or tribal agency for an application.
Federal/State Regulations
The information contained in this publication accurately reflects regulations and policies at the time of printing. Be aware that Federal and State regulations governing financial aid processing and eligibility are subject to change at any time.

Other Types of Financial Assistance
Student Part-Time Employment & Internship Opportunities

The Career Development Center assists students with locating part-time employment, internship opportunities, on-campus federal work-study, and off-campus positions. Students can access listings on BeachLINK, CSULB’s online job search site http://careers.csulb.edu/. For more information, contact the Career Development Center (562) 985-4151 or visit Brotman Hall, Room 250.

Teaching Associateships and Graduate Assistantships
Many CSULB departments have Teaching Associate (TA) and/or Graduate Assistant (GA) positions available for qualified graduate students. Students should check in department offices or on the campus web site for more information. The Career Development Center assists students with locating part-time employment, internship opportunities, on-campus federal work-study, and off-campus positions. Students can access listings on CareerLINK, CSULB’s online job search site at http://careers.csulb.edu/students/jobs_connect.htm. For more information, contact the Career Development Center at (562) 985-4151 or visit Brotman Hall, Room 250.

Teaching Associateships and Graduate Assistantships
Many CSULB departments have Teaching Associates (TAs) and/or Graduate Assistant (GA) positions available for qualified graduate students. Students should check in department offices or on the campus web site for more information.
Orientation and Advising

Student Orientation, Advising and Registration

SOAR is the comprehensive orientation workshop to help newly admitted students transition—both academically and socially—to CSULB. All new undergraduate students are required to attend SOAR before registering for classes. Students must be formally admitted to CSULB and have paid the CSULB Enrollment Deposit in order to sign up and attend SOAR.

For information about SOAR workshops and other programs, call (562) 985-5515, email soar@csulb.edu or visit www.csulb.edu/soar.

SOAR Freshman Workshops

Newly admitted freshmen must participate in either a one-day SOAR workshop or attend the overnight program. One-day freshman workshops include a campus tour, academic advising, and assistance with class selection and registration. One-day workshops are offered in the summer and winter. The overnight SOAR program, which is only offered in the summer, provides academic advising, class selection and assistance with the registration process, introduces freshmen to college life/issues, and enables students to experience an overnight stay in the campus residence hall.

SOAR Transfer Workshops

Each of the University’s seven colleges collaborates with SOAR to sponsor college-specific transfer workshops. Transfer students should participate in a college-specific workshop where they meet with faculty advisors and receive assistance with class selection specific to their declared major.

Student Transition and Retention Services

The First Year Experience (FYE) Success Series is a collaborative workshop series designed to address important academic information and campus resources at critical points in the first year. Topics in the fall semester are geared towards helping students with their academic transition, while the spring semester focuses more on enhancing the college experience outside of the classroom and gaining important leadership and career experience. Additionally, FYE provides opportunities for students to connect with other students, faculty/staff, and campus resources through co-curricular programming.

For information, call (562) 985-5515, visit www.csulb.edu/soar or go to the Foundation Building, Room 160.

Parent and Family Programs (PEP)

Parent and Family Programs provide parents, family members, and other supporters an opportunity to serve in an active and supportive role in the education of their CSULB student. Its mission is to engage parents and families of CSULB students through quality programs, access to resources and regular communication in order to support student persistence and success toward timely graduation.

Opportunities for involvement begin with Parent and Family Orientation (PFO), which offers an orientation program for parents, family members, and other supporters. PFO helps family members understand CSULB and how to best support their student’s transition to life at the beach. The PFO experience empowers participants to serve as a valuable resource to their CSULB student. PFP offers additional opportunities for engagement throughout the year by providing e-newsletters in addition to PFP-exclusive programs like the annual First Year for Parents and Families event. To inquire about PFP and upcoming events please contact parentfamilyprogram@csulb.edu or call (562) 985-5515.

Advisement Centers and Departments on Campus

CSULB is committed to student success. All academic advising centers and departments are responsible for providing academic direction for new and continuing students. All college specific academic advising units and academic departments provide information and advice about general education, major requirements, and other important academic related policies and procedures. Students are strongly advised to meet with an academic advisor frequently to enhance their overall academic experience and monitor their progress towards attaining their degree goals and objectives.

University Center for Undergraduate Advising

THE UCUA is the primary advising center for:

- Undeclared majors as well as those who have doubts or concerns about their initial choice of major
- Beach Learning Community participants
- CSULB students on probation
- Academically disqualified students seeking reinstatement to CSULB

For these populations, we provide:

- guidance in exploring and formulating academic plans to achieve graduation in a timely manner;
- recommendations regarding opportunities for personal growth and academic development;
- interpretation of academic requirements and institutional policies/procedures; (e.g., issues regarding repeat, withdrawal, unit limits, timely graduation, probation, and reinstatement);
- campus and community referrals when students encounter academic and non-academic challenges.

The University Center for Undergraduate Advising operates on an appointment basis; however, students may walk in during available Quick Question hours. Visit the UCUA website at http://www.csulb.edu/ucua or call (562) 985-4837. The UCUA is located in the Horn Center, Room 103.
Bickerstaff Academic Center for Student-Athlete Services

The Bickerstaff Academic Center (BAC) serves as an academic resource for CSULB's NCAA Division I student-athletes. The BAC's mission is to promote student success for our student-athlete population, including helping them maintain the academic standards necessary for NCAA eligibility, persist to graduation, and achieve their overall educational goals. While advising is the core service provided by the BAC, it also has developed additional academic support programs to help student-athletes succeed. These programs include the Freshmen Transitions Program, which assists incoming students acclimatize to university life, Supervised Study Hall, Tutorial Program, Mentoring Program, and Freshmen Academic Skills Workshops.

In addition, the BAC staff closely coordinates with other essential academic support services throughout the University including: The Learning Assistance Center, the Writer's Resource Lab, the Career Developmental Center, Department-based tutorial services, Counseling and Psychological Services, and Student Orientation Advising and Registration.

For more information, call (562) 985-4777 or go to KIN-67.

Prebaccalaureate Advising Support Services

PASS provides advising, placement, intervention, and support to admitted students who are required to complete Composition I, ALI 145/150 and MAPB 1, 7, 11 courses as mandated by the CSU Executive Order 1048.

PASS is located in LA5-361, online at www.csulb.edu/pass, and may be reached at (562) 985-7895.

Engineering Student Success Center (ESSC)

Coordinator of Academic Advising
Jason Deutschman (562) 985-2729

Director of Professional Development and Internship
Emmitt Clark (562) 985-1719

Director of Outreach and Recruitment
Saba Yohannes-Reda (562) 985-1463

The Engineering Student Success Center provides key services to students in an inclusive environment that fosters collaboration, community building and academic success skills. The center provides outreach and recruitment activities, first-year experience programs for freshmen and incoming transfer students, mandatory academic advising by professional and peer advisors, tutoring resources, professional development and assists with internship opportunities. As a one-stop shop, the center encourages students to visit for help from professional advising staff. The center focuses its full efforts on informing, engaging and encouraging students to be self-directed in their educational planning process and overall academic success.

College of Health and Human Services Academic Advising Center

The CHHS Academic Advising Center provides comprehensive academic advising for all currently matriculated CHHS undergraduate students. For information visit www.csulb.edu/chhsadvising or call (562) 985-2691.

Jensen Student Access to Sciences and Mathematics Center (SAS Center)

The James L. Jensen Student Access to Sciences & Mathematics (or SAS, for short) Center serves to support, prepare, and advance the education of students in all fields of science and mathematics through active participation in research, scholarship, and co-curricular activities. We provide numerous student development programs and activities for students in the science and math disciplines, including orientation programs for incoming freshmen and transfer students, pre-health professions advisement, and research opportunities through federally-funded programs. Additionally, the SAS center offers free, drop-in science and math tutoring, career and graduate school preparation workshops. Finally, we offer cutting edge technology infrastructure for students through our G2 Computer Lab. The SAS center is dedicated to educating current and prospective students, family members, counselors, and administrators about the assortment of resources offered at the university in order to encourage overall student participation and academic success. For information, visit www.csulb.edu/sas, call (562) 985-4682, or visit us in the Hall of Science, Room 164 (HSCI-164).

University Honors Program

The University Honors Program offers small discussion classes with students who share similar interests and abilities; personalized academic advisement and guidance each semester; opportunities for a distinguished undergraduate record as one of fewer than 600 Honors students on campus; and the opportunity to complete an undergraduate thesis project in the area of the student's major. Normally, students should be in the upper ten percent of their high school classes, and have an ACT composite score of at least 24, and/or strong SAT scores, and a GPA of 3.5 or higher. If not all criteria are met, under special circumstances, applicants may be evaluated for admissions consideration by the Honors Program Director. For more information, please visit the Honors office, Library Room 214, or our website at www.csulb.edu/uhp.

Student Academic Support Services

CSULB provides a broad range of educational and student support services to assist students. The following programs compliment and support classroom instruction.

Career Development Center

The Career Development Center provides resources and assistance for choosing a college major, developing career plans, finding internships or employment, and applying to graduate school. The CDC hosts BeachLINK, the campus web portal for all career services and an interactive job board featuring internships, full- and part-time jobs, and volunteer opportunities. Services at the CDC include the one-on-one career counseling and job search coaching, drop-in advising, group workshops and access to the Career Resource Library, which houses both print and online resources on careers and job search methods. During Fall and Spring semesters, the CDC hosts job fairs, employer information sessions, and the on-campus interviewing program. For information, call (562) 985-4151, visit http://careers.csulb.edu, or go to Brotman Hall, Room 250.
Employment Opportunities

The Career Development Center receives over 10,000 job listings every year for full-time and part-time jobs on and off campus, internships and on-campus interview opportunities. Students can access these listings on BeachLink, CSULB’s online job and internship posting board at http://careers.csulb.edu.

Internship Program

The Career Development Center Internship Program assists students from all majors with locating paid and unpaid career positions with corporations, businesses, nonprofit agencies, and institutions. The internship program provides students with information regarding academic credit for internships. Students can access internship opportunities on BeachLink, CSULB’s online job search site, http://careers.csulb.edu. Additionally, the Career Development Center offers a one-unit elective course to undergraduate students seeking to obtain academic credit for the internship. The internship class, Leadership in the Workplace is open to undergraduate students in all majors. For information, contact the Internship Program Office (562) 985-5552 or email interns@careers.csulb.edu or visit http://careers.csulb.edu.

Disabled Student Services (DSS)

Disabled Student Services (DSS) under the direction of David Santilippo, provides services for students including registration assistance, academic advising, exam accommodations, and parking assistance. DSS programs include the High Tech Center, which provides computer support services and alternative media requests; Hearing Impaired Support Services, which provides sign language interpreting and real time captioning; and the Stephen Benson Learning Disabilities Program, which provides psychoeducational assessment and disability management counseling. DSS consults with Department of Rehabilitation clients through the WorkAbility IV Program. Other services include writing support, special admission assistance, and the campus organization for students with Autism or Aspergers, LIFE (Learning Independence for Empowerment), which provides support to students who need assistance socially navigating the campus, work environment, or personal life for a more independent and successful experience. For more information, call (562) 985-5401, visit www.csulb.edu/dss or go to Brotman Hall, Room 270.

College Assistance Migrant Program (CAMP)

The College Assistance Migrant Program (CAMP) is a federally funded program designed to assist migrant and seasonal farmworker students and their immediate family members to successfully complete the first undergraduate year of study at Cal State Long Beach. CAMP offers assistance with academic and financial support such as: individualized one-on-one academic counseling and tutorial services, life skill workshops, a $400 educational stipend for qualifying participants, exposure to social and cultural events, leadership conference, and educational excursions.

For more information please contact us at 562-985-2006 or email: camp@csulb.edu. Office location: LA1-107, website: www.csulb.edu/camp

Educational Opportunity Center

The Educational Opportunity Center (EOC) is a federally funded program designed to identify and assist low income, first-generation adults who want to enter, re-enter or continue in a program of postsecondary education. Adults enrolled or interested in enrolling in a high school diploma or GED program are encouraged to seek services. For information, call (562) 570-3710, visit www.csulb.edu/ets, or go to 3477 Atlantic Avenue 2nd Floor, Long Beach (cross streets Atlantic Avenue and East Wardlow Road.)

Educational Talent Search

This federally funded program identifies, selects, and assists low-income, first-generation individuals between the ages of 12 to 27 to continue in and graduate from secondary school and enroll in a postsecondary educational program. For information, call 562-596-0471 or visit www.csulb.edu/ets.

Student Support Services Program

SSSP is a federally funded program that provides academic development opportunities to students who are first-generation, low income and/or have a disability and motivates them toward successful completion of their postsecondary education. SSSP strives to increase the college retention and graduation rates of its participants by providing academic tutoring and advising, financial and economic literacy counseling and assistance with applying to graduate and professional programs. For information, call (562) 985-2185 or go to Liberal Arts 1, Room 104.

Upward Bound Program

This program is a federally funded college preparatory program designed to assist first generation, low-income high school students who have the potential to pursue postsecondary education. Program assists participants in their efforts to complete high school successfully and obtain a college education. It services summer and weekend academic instruction, tutoring, academic, personal and career counseling, cultural activities and college application and admissions assistance. For information, call (562) 985-5520 or visit www.csulb.edu/upwardbound.

Educational Opportunity Program (EOP)

EOP is a state funded program that provides access/admissions support, academic support and retention services to low-income, first-generation college students to help overcome the obstacles that may prevent them from furthering their education and reaching their potential. For information, call (562) 985-4288, visit www.csulb.edu/eop, or go to the EOP Admissions Office at LA1-103.

Summer Bridge Program

This program provides an intensive-four week summer experience for selected first-time freshmen EOP students. It provides English and mathematics instruction, tutoring, orientation to the campus, study skills workshops and enrichment activities to prepare students for the challenges of college. For information, call (562) 985-5637, visit www.csulb.edu/summerbridge or go to Liberal Arts 1, Room 119.
Educational Equity Services

The Office of Educational Equity Services (EES) assists in the admission and retention of low-income, first generation college students, migrant students and academically and economically disadvantaged students, some of whom might not otherwise be enrolled in the University. For information, call (562) 985-2185 or go to Liberal Arts 1, Room 104.

Partners for Success

Partners is a mentoring program that provides students with an experienced faculty mentor for guidance and individual advising relating to college transitions, academics and major selection.

Center for Community Engagement

The center supports community-based scholarship and learning such as service-learning, community-based participatory research and other types of campus-community engagement. Our purpose is to enrich the educational experience of students by serving as a facilitative partner and resource for students, faculty, staff and community members in strengthening community capacity; promoting shared community-based participatory research and planning; and building social and political capital through the coordination of community and civic engagement, effective service learning and reciprocal community collaboration. The Center is located in the Academic Services Building Room 127. For information call (562) 985-7131 or visit www.csulb.edu/cce.

Writer’s Resource Lab

The Writer’s Resource Lab provides individualized instruction to help CSULB students develop their writing abilities. For specific information or to make a tutoring appointment, please stop by the Writer’s Resource Lab in LAB-206 or call (562) 985-4329.

Learning Assistance Center

The Learning Assistance Center (LAC) offers four programs to help students achieve academic success. Learning Skills offers individual appointments with Learning Skills Specialists and classroom workshops on strategies for student success. The Learning Skills program offers free individual appointments and classroom workshops to help students consider, review, and master their study habits and strategies. The Tutorial Services Program offers individual and drop-in tutoring for specific course content. Though these services require a fee, many students may be eligible for a fee waiver provided by referring campus partner programs. ESL Language and Writing Tutoring offers free appointment-based tutoring and an informal drop-in conversation lab for international students and other second language learners. The Supplemental Instruction Program provides peer-based in-class support for historically difficult courses and specific freshman populations. The LAC typically hires student employees for fall and spring semester. For more information or to make an appointment, visit our website at http://www.csulb.edu/lac or call us at (562) 985-5350.

Study Abroad Programs

This program assists CSULB students and faculty to select and prepare for an educational experience in another country. Study abroad options include short-term programs (summer and winter), semester programs, and year-long programs. International internships, volunteer, and work experiences are also available. Students may be eligible for financial aid, loans, or scholarships to assist them with a study abroad experience. The office is located in the Center for International Education in Brotman Hall, Room 201.

International Student Services

International Student Services serves some 2,700 non-immigrant students, representing over 90 countries, by assisting them with their academic, personal, and cultural growth and development during their years at CSULB. This is accomplished through professional counseling and advising; assistance with Department of Homeland Security (DHS) regulations, paperwork processing, and documentation; student orientation activities; and assistance with registration. The ISS staff also serves as the University liaison with consulates, embassies, businesses, foundations, and community organizations concerning international students at CSULB. ISS is located in the Center for International Education in Brotman Hall, Room 201.

International Programs

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University. Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 20,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 50 recognized universities and institutions of higher education in 18 countries, the International Programs also offers a wide selection of study abroad destinations and learning environments.

Australia...................... Griffith University, Macquarie University, Queensland University of Technology, University of Queensland, University of Western Sydney, Victoria University Canada...............................Concordia University (Montréal) Chile .........Pontificia Universidad Católica de Chile (Santiago) China ......................................Peking University (Beijing) Denmark.............................. Danish Institute for Study Abroad (international education affiliate of the University of Copenhagen) France ......................................Institut Catholique de Paris, Université d’Aix-Marseille (Aix-en-Provence), Universités de Paris I, III, IV, VI, VII, VIII, X, XI, XII, XIII, Université Paris-Est Marne-la-Vallée, Université d’Evry Val d’Essonne, and Université de Versailles Saint-Quentin-en-Yvelines
a number of institutions of higher education in the Federal state of Baden-Württemberg

Germany

University of Tübingen and

a number of institutions of higher education in the Federal state of Baden-Württemberg

Ghana

University of Ghana, Legon

Israel

University of Haifa

Italy

CSU Study Center (Florence),

Spain

Universidad Complutense de Madrid,

Spain

Universidad de Granada,

Spain

Universidad de Jaén

Sweden

Uppsala University

Taiwan

National Taiwan University (Taipei),

United Kingdom

Bradford University, University of Bristol,

University of Hull, Kingston University,

Swansea University

Students participating in International Programs pay CSU tuition and program fees, and are responsible for airfare, accommodations, meals and other personal expenses. Financial aid, with the exception of Federal Work-Study, is available to qualified students and limited scholarship opportunities are also available. Most International Programs require students to have upper-division standing at a CSU campus by the time of departure; several programs are open to sophomores or Graduate students. California Community College transfer students admitted to a CSU campus are eligible to apply (to select programs) directly from their community colleges. Students must possess a current cumulative grade point average of 2.75 or 3.0, depending on the program, and must fulfill all coursework prerequisites. Additional program information and application instructions can be found on our website at www.calstate.edu/ip.

**Campus Services**

**Center for Scholarship Information**

This center serves as a campus resource on the complete scholarship process. The center maintains a database of scholarships on- and off-campus and advises students on how to search and/or apply for scholarships. For information, call (562) 985-2549, go to www.csulb.edu/scholarships or visit the center in the University Student Union, Room 238.

**Child Development Center, Isabel Patterson**

The Isabel Patterson Child Development Center (IPCDC) serves as a family support service for CSULB students by offering early care and education programs for children from six months through second grade. The IPCDC enables student parents to attend classes and is dedicated to ensuring that no student parent is denied access to higher education because of a lack of affordable campus childcare. Enrollment priority is given to CSULB students, and then opened to faculty and staff, CSULB alumni, and the community as space allows. Accredited by the National Association for the Education of Young Children, the IPCDC is an exemplary program which models current principles and practice in child development. For information, call (562) 985-5333, http://www.asicsulb.org/pages/child-development-center or visit the center at 5700 Atherton Street.

**Partners for Success Faculty Mentoring Students Program**

Partners for Success is a mentoring program that provides first-generation students and sophomores with specific GPA criteria with an experienced faculty mentor for guidance and individual advising relating to college transitions, academics and major selection. Faculty mentors also provide support and campus resources such as tutoring, counseling and involvement opportunities to ensure students success to graduation. For information and a student application, visit www.csulb.edu/partners, email partners@csulb.edu or call (562) 985-7562.

**Counseling and Psychological Services**

This service provides students with short-term counseling, group counseling, referrals to community providers, psycho-educational workshops and crisis intervention services. The Center also helps students meet personal challenges associated with identifying and achieving academic, career, and life goals. For information, call (562) 985-4001, visit www.csulb.edu/caps or go to Brotman Hall, Room 226.

**Student Health Services (SHS)**

This service provides medical services, preventive health and health education program. All regularly enrolled CSULB students who have registered for the current semester and have paid the $45.00 mandatory health fee are eligible for services. Services also are available for students taking classes through College of Continuing and Professional Education for $15.00 per visit (while classes are in session), and for students on educational leave for a non-refundable $45 fee. Most medical services are covered under the basic service fee, with the exception of pharmacy, external labs
An array of health education services, alcohol and drug abuse prevention workshops, nutrition counseling, HIV testing/counseling and sexual health awareness workshops are offered at SHS. For information, call (562) 985-4771, visit www.csulb.edu/shs or go to the Student Health Center on the corner of Beach Drive and Merriam Way. Note: A medical emergency arising on campus should be directed to University Police by dialing 9-1-1.

- Immunization Requirement Clearance
  Entering CSU students are required to present proof of MMR (Measles, Mumps and Rubella) and Hepatitis B before the beginning of their first term. (Refer to Admission to the University, Immunization Requirements section of this catalog.) Clearance is obtained at Student Health Services by showing proof of immunity using medical records or by receiving immunizations (available at SHS). Medical and religious exemptions are available. For information and hours of operation, call the SHS Immunization Hotline at (562) 985-5411 or go to www.csulb.edu/shs.

U.S. Passport Application Acceptance Office
  This office is authorized by the U.S. Department of State to accept and execute passport applications. (Passport processing is completed by the U.S. Department of State.) The office is located in Brotman Hall 250 and open to the public. A passport photo service is offered onsite. Information on required forms, documents and fees is available at http://passport.csulb.edu or by calling (562) 985-7790.

Veterans Services
  CSULB Veterans Services is the primary support center at CSULB for military veterans, service members and their dependents. A primary role of the office is to certify student eligibility for education benefits offered by the U.S. and California Departments of Veterans Affairs. Other services include outreach to prospective student veterans, advising, and advocacy for veterans and their dependents. A US Department of Veterans Affairs Counselor is available to assist with federal veterans benefits through the VetSuccess on Campus program. For information, call (562) 985-5115, go to the Foundation Building, Room 220, or visit www.csulb.edu/veterans.

University Ombuds
  This office is an independent, neutral resource for informal problem-solving serving the entire campus community. The office answers inquiries about the university, provides a safe place for discussing sensitive issues and identifying options, facilitates conversations and engages in conflict resolution, including mediation. The office maintains confidentiality in accordance with the Code of Ethics of the International Ombudsman Association, the limits of the law, and our organizational context. Appointments are suggested; walk-in cases are usually accommodated depending on availability. CSULB Foundation, Suite 140; (562) 985-5983; www.csulb.edu/president/ombuds.

University Library
  The library provides information resources that support teaching and learning and provides enrichment and recreation for members of the campus community, as well as other scholars and community members. Library staff are committed to helpful, efficient customer service. Home to the Spidell Center, the largest student computing facility on campus, the library is a leader in the delivery of digital content and in marshalling technology to facilitate scholarly inquiry. For more information, visit www.csulb.edu/library.

Student Life and Resources
  There are many options for students to get involved and create positive experiences and relationships at CSULB. Students are encouraged to make social connections and make a positive difference and to make the most of their time at "The Beach."

Student Life and Development (SLD)
  The Office of Student Life and Development provides extensive developmental, leadership, service and involvement activities for students. SLD services include orientation for student leaders; and organizational advising and program approvals for more than 300 recognized student organizations, including fraternities and sororities, cultural clubs and religious groups. SLD also oversees the Lois J. Swanson Leadership Resource Center, Leadership Academy, Student Cultural Resource Centers, American Indian Student Services Program, and Student Academic Travel Grants. Contact SLD at (562) 985-4181 or www.csulb.edu/sld or go to the University Student Union, Room 215.

College Organizations
  Many academic departments have academically-related student organizations and discipline based honorary societies. Students from each academic organization departmental association work together on a college student council for each of the seven colleges. These groups promote interaction between faculty and students, and sponsor speakers, seminars, social gatherings and other activities. Staff from Student Life and Development play a key role in coordinating major events sponsored by these groups.

Leadership Resource Center, Lois J. Swanson
  This center prepares CSULB students to be the world’s best leaders and maximize leadership potential with a commitment to serve others through the LRC services and programs. The LRC also offers two personal development programs for students: Financial Fitness and Conflict Resolution. The LRC provides a leadership library and offers consultations for classroom facilitation, conferences and customized workshops and seminars. For information, call (562) 985-1936 or go to the Leadership Resource Center, Lois J. Swanson Leadership Resource Center, Leadership Academy, Student Cultural Resource Centers, American Indian Student Services Program, and Student Academic Travel Grants. Contact SLD at (562) 985-4181 or www.csulb.edu/sld or go to the University Student Union, Room 215.

Leadership Academy
  The academy is a three-part extracurricular, certificate-bearing program composed of workshops, community service and practical application. The purpose of the Academy is to help students increase their understanding of
leadership skills and improve their leadership potential. The Advanced Leadership Challenge, open only to Leadership Academy graduates, builds the theories and foundation skills students gain in the Leadership Academy and involves a practical application of those skills and theories. For information, call (562) 985-1936 or go to the University Student Union, Room 314.

**Multicultural Center**

The Center’s mission is to contribute to the creation of a campus environment which respects and supports cultural, ethnic, racial and religious diversity. The Center has an educational Resource Library which serves students, faculty and staff. The Multicultural Center offers, S.T.A.R. (Students Talk About Race), a professional diversity workshop that is free to students. For information, go to Faculty Office building 3 (F03), Room 03, call (562) 985-8150 or visit www.csulb.edu/mcc.

**Student Resource Centers**

There are five student-run resource centers on campus. These venues are for affiliated student organizations to conduct program planning, peer mentoring, officer meetings, and post information about scholarships, service and internship opportunities.

- African Student Resource Center, FO4-274
- American Indian Student Study Center, FO4-282
- Asian Pacific Student Resource Center, FO4-277
- Lesbian/Gay/Bisexual/Transgender Student Resource Center, FO4-165
- Raza Student Resource Center, FO4-262

**Student Government**

The Associated Students Government provides for student self-governance and the development of leadership abilities to ensure the full and effective participation of students in civic affairs and campus shared governance. ASI offers student programs and activities that complement the academic curriculum of the university and develop career related skills. ASI also advances student welfare beyond the university setting by mobilizing student participation in the full range of democratic channels including voter education, voter registration, and legislative lobbying. For information, call (562) 985-5241 or visit www.csulb.edu/asi.

**Student Recreation and Wellness Center**

The SRWC is a 125,000+ square foot facility with fitness programs, instructional classes, a rock climbing wall, multi-activity courts, swimming pool, sand volleyball, 20,000+ square feet of weight room and cardio space, and more. The SRWC serves as a place for students, faculty, staff and alumni to exercise, study and hang out and provides opportunities for student employment and internships.

**University Interfaith Center**

This center is an association of 12 faith traditions serving the educational community of CSULB. The Center strives to enhance the educational experience by encouraging students, faculty and staff in their pursuit of spiritual growth, community building, faith development and personal values. For information, call (562) 985-7595 or go to Brotman Hall, Room 178.

**University Student Union**

Located in the center of campus, the 180,000 sq. ft. University Student Union offers weekly entertainment activities and numerous recreation and leisure activities. A "home away from home," USU amenities include bowling lanes with a cosmic bowling feature, billiards, video gaming, various lounge spaces, outdoor swimming pool, food court and retail vendors including a full-service bank and ATM's, as well as facilities for meetings, luncheons and films. Discounted theme park and movie tickets are also sold at the Information Center.

**Women's and Gender Equity Center**

This center supports and facilitates the educational, professional and personal success of campus women through targeted educational programs, and campus and community resource connections. The center also coordinates Project Safe, a program to reduce the incidence of sexual assault, relationship violence and stalking. For information, call (562) 985-8576, go to www.csulb.edu/wrc or visit Liberal Arts 1, Room 102.
Frequently Asked Questions

Students ask many of the following questions about the processes and rules of CSULB. Successful students know the answers to these frequently asked questions. Please read them carefully. Knowing these answers can help you avoid pitfalls during your first semesters on campus. For further information, contact the University Center for Undergraduate Advising at (562) 985-4837.

1. Why is it critical that I check e-mail from CSULB? It is important to check your e-mail regularly since this is the primary means by which you will receive important information from the University (e.g., deadlines for adding and dropping classes, your enrollment appointment date).

2. How do I tell the University about a change in my phone number, e-mail address or mailing address? You can use MyCSULB to change your phone number, e-mail address, indicate the e-mail address that you prefer to use, or change your mailing address. Click on “Personal Information” to view your current information and to make changes.

3. Why should I check my official class schedule at the beginning of each semester and again after two or three weeks? It is important to make sure that you are officially enrolled in every class you are attending and not enrolled in any class you are not attending. Remember that an instructor can give you permission to add a class, but only you can officially enroll yourself in a class.

4. Why is it important that I personally drop classes that I have registered for but am no longer attending? Instructors do not have the responsibility to drop students. Students must drop classes they no longer want or never attended (using MyCSULB) up to and during the first two (2) weeks of the semester.

   Beginning the third week, students must use the official withdrawal petition to change their schedule. (See the section on Withdrawals for the rules that apply to withdrawal after the third week of classes.)

   Official withdrawal is indicated on the transcript with the symbol “W.” This designation does not affect grade point average (GPA). Undergraduates may withdraw from a career-maximum of 18 units per Executive Order 1037.

   Students who fail to withdraw officially within the established deadline receive a “WU” symbol (unauthorized withdrawal). In the calculation of the GPA, a “WU” is counted as an “F” grade.

5. Can I enroll in a Fall class that requires a prerequisite if I am currently enrolled in the prerequisite course this Spring? Yes, your work in progress in the spring will be considered as meeting the prerequisite for registration purposes. However, if you fail the class in question, you will be dropped from the class that requires the prerequisite.

6. Can freshmen/sophomore students take upper-division (300-499) classes? University policy prohibits students with under 30 units from taking upper-division courses without permission of the instructor.

7. What can I do if I get a "D” or "F" or "WU" in a course? The University has a policy which allows undergraduates to repeat a course in which they earned a "D", "F," or "WU". If the second grade is a "C" or better and taken at CSULB, the second grade will be used to calculate your GPA. Both grades remain on the transcript, but the first one is “forgiven” from the GPA calculation. This can only be done once per course at CSULB. If you don’t earn a “C” or better on the second try, all grades will be counted. Undergraduate students may repeat 28 units of which 16 can be for grade forgiveness, per Executive Order 1037. For further details, refer to the “Repetition of Courses for Credit” in this section of the Catalog.

8. Can I use a first name other than my legal name? CSULB recognizes that, within our community, many students use names other than their legal names to identify themselves. As long as the use of this different first name is not for purposes of misrepresentation or to avoid legal obligations, the university acknowledges that a preferred first name can be used wherever possible as students engage in their education at CSULB. Therefore, the University allows for any current student to utilize a preferred first name whenever possible. To protect the University and to promote a positive campus community, requests will be reviewed for appropriateness. Preferred names cannot be nicknames, cannot contain foul or inappropriate language, nor can they be used for purposes of misrepresentation. The University reserves the right to approve or reject a request for the use of a preferred first name. Requests will be reviewed by Enrollment Services. Inappropriate use of the preferred first name guidelines—including, but not limited to, avoiding a legal obligation or misrepresentation—may be cause for denying the request. Inappropriate use of the preferred first name guidelines may result in a violation of the Standards for Student Conduct (CSULB Campus REGS, www.csulb.edu/regs) and may be referred to the Director of Student Conduct and Ethical Development.

Academic Calendar

California State University, Long Beach operates on a semester system, which is supplemented by a fee-supported summer term and a fee-supported winter session. Normally, fall semester classes begin in late August or early September. The last day of instruction usually comes midway in December; this allows for a week of final examinations prior to the winter recess, which begins about December 20. The spring semester usually begins in the last week of January and ends in mid-May, in time for a week of final examinations and the week of commencement.
Enrolling in Classes

Registration dates and detailed instructions can be found on the Enrollment Services website. Continuing students, returning undergraduates and newly admitted graduate students are sent a registration appointment date. Undergraduate students who are new to CSULB register when they attend the Student Orientation, Advising and Registration program (SOAR).

Students may enroll in classes via "MyCSULB" starting on the enrollment appointment day assigned by the University through the first two weeks of the fall and spring semesters. During the third week of the semester written permission on a Late Registration Request form is required from the instructor and a stamp of approval is required from the department. Late registration requests will be considered during the fourth week of instruction with the payment of a missed deadline fee.

Students receiving instructor or department "permission" to add classes via MyCSULB or who have been added to an instructor's wait list or roster must still complete the add procedures by the dates listed each semester. No request to add classes will be considered after the fourth week of the semester unless there is a verifiable technical error.

Students are not permitted to attend any class for which they have not officially registered. Note: Students must complete the procedures for official enrollment in classes. Instructors, advisors and departments cannot add students into classes.

Registration Holds

Students may be prevented from registering because they have not met a University obligation. Students can view their own information (HOLDS) on MyCSULB.

Financial Holds

Students are personally responsible for making sure that registration fees and any other fees or charges are paid on time to CSULB, regardless of who funds the student’s education.

These charges can include payment for items damaged, returned late, or not returned, and can include course fees for some courses or activities.

Students can review their account balance at MyCSULB. Payment can be made on MyCSULB or at the Cashier’s Office, BH-148.

Students who have an unpaid balance will have a financial hold placed on their academic records until the balance is paid or a written release from the originating office is received by the Student Account Services Office. The hold restricts the student from receiving University services, including but not limited to registration, grades, and transcripts.

If the obligation continues to appear on the University reports, the student's name will be submitted to the Franchise Tax Board. In this case, the student or former student permanently loses the privilege of submitting checks as payment for fees or services. (Acceptable methods of payment are cash, cashiers’ check or money order). The State then has the authority to withhold amounts owed to the University from any tax refund to which the student may be entitled.

Other Holds

The following types of holds may appear. Students should contact the office listed for information about how to clear the hold.

- Failure to take a required test - Testing and Evaluation Services (562) 985-4006
- Remediation hold - Pre-baccalaureate Advising and Support Services AS 14, (562) 985-7895
- Perkins Loans – Business Office, BH 155, (562) 985-5348
- Measles/Rubella – Student Health Services, (562) 985-4771
- CIE hold (Foreign Clearance) – Center for International Education, BH 201, (562) 985-4106
- No Major Hold – Enrollment Services, BH 101, (562) 985-5471
- Timely Graduation Hold – Enrollment Services, BH 101, (562) 985-5471
- Advising Hold - Advisor for Major

Advising for Freshmen

CSULB is committed to offering our students the best possible first-year experience; therefore, we have established procedures which will ensure that all students receive accurate and timely academic advising. Advising is an opportunity for students to connect to their college or department advisor, faculty and staff to discuss future educational plans. Through this connection, students will be able to discuss future educational goals, review program options, and receive advice on course selection.

This connection is one of the most important steps to your future success at the Beach! We feel so strongly about ensuring that you have advising as you prepare for your sophomore year, that we require all freshmen to participate in the program prior to registering.

In addition, CSULB advisors can assist in a variety of different ways by working with students to broaden interests; develop academic and career goals; identify major areas of academic interest; create realistic plans of study; increase decision-making skills; take responsibility for academic direction.

All entering freshmen have "advising holds" placed on their records for their first year and will not be able to change their schedules without consultation with an advisor. Mid-way through the semester, freshmen will receive information about the Mandatory Advising Program, a comprehensive advising session to prepare for the next semester course selections. The advising hold will be removed after the student attends the advising session.

Class Attendance

Students are expected to attend classes regularly. Classroom attendance is often one of the most necessary and important means of learning and, in many classes, is essential to the educational objectives of the course.

Faculty members must include their guidelines for assigning grades in the syllabus. The syllabus must make clear whether any portion of the grade is based on attendance and/or participation. It is the students'
responsibility to make themselves aware of each faculty member’s guidelines by carefully reading the syllabus. (PS 04-05)

Faculty members may drop students who fail to attend class during the first week of the semester. However, students should not presume that they will be dropped by the faculty member. Students who have registered for a class, but never attended, should verify whether or not they are officially enrolled. It is the student’s responsibility to withdraw officially from the class.

Students may have a valid reason to miss a class. When any of the following reasons directly conflict with class meeting times, students are responsible for informing faculty members of the reason for the absence and for arranging to make up missed assignments, tests, quizzes, and class work insofar as this is possible. Excused absences include, but are not limited to:

1. Illness or injury to the student
2. Death, injury, or serious illness of an immediate family member or the like
3. Religious reasons (California Education Code section 89320)
4. Jury duty or government obligation
5. University sanctioned or approved activities (examples include: artistic performances, forensics presentations, participation in research conferences, intercollegiate athletic activities, student government, required class field trips, etc.)

Faculty members are not obligated to consider other absences as excused. Faculty members may require students to provide documentation for excused absences.

There are numerous classes offered on campus where attendance is crucial since student participation is essential. Absence from these classes may impact the work and participation of other students. Students who anticipate extended or multiple absences during a particular semester should consult with their advisor and the faculty member before enrolling in any class to determine whether it will be possible to complete the requirements for the course.

Students who realize after enrollment that they will have extended or multiple absences should consult with the faculty member to see whether it will be possible to complete the course requirements.

The earliest possible notification is preferred. In some circumstances, it may be possible for the student to notify the faculty member of anticipated absences (e.g. for religious reasons or for scheduled athletic events) during the first week of enrollment. Advance notification (minimally one week in advance) is required for the following absences:

1. Jury duty and other government obligation
2. Religious reasons
3. University sanctioned or approved activities

The California Education Code (section 89320) requires "each state university, in administering any test or examination, to permit any student who is eligible to undergo the test or examination to do so, without penalty, at a time when that activity would not violate the student’s religious creed. This requirement shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship which could not reasonably have been avoided. In any court proceeding in which the existence of an undue hardship which could not reasonably have been avoided is an issue, the burden of proof shall be upon the institution."

It is the responsibility of the student to make advance notification, contact the faculty member to make arrangements to make up any academic work that may be missed, submit assignments on time, and to make arrangements regarding activities, tests, quizzes, or exams that may be scheduled during the absences.

If a student does not notify the faculty member one week in advance of the date of absences for these reasons (jury duty, governmental service, religious observances, or University sanctioned activities), the instructor is not required to adjust the class schedule or to allow for make up activities, tests, or exams. Students shall not, however, be penalized for excused absences when circumstances make it impossible to provide advance notice (e.g. student is engaged in a University sanctioned event such as a performance, tournament, or playoff which cannot be anticipated). A student who expects to be absent from the University for any valid reason, and who has found it difficult to inform the instructor, should notify the academic department office. The department office shall notify the student’s instructors of the nature and duration of the absence. It remains the responsibility of the student to arrange with instructors to make up any academic work missed.

In circumstances where an actual assignment, some specific class work, an activity, a quiz, or an exam cannot reasonably be made up, it is the instructor’s option to assign alternative work. (PS 01-01)

Visitors to Classes

Only students registered for the class either as regular students or as auditors and invited guests of the instructor may attend classes at CSULB. Persons wishing to become guests of the instructor should seek the instructor’s permission prior to the beginning of the class session.

Faculty Office Hours

The purpose of office hours is to provide opportunities for student-faculty interaction outside the classroom. Each instructional faculty member will hold one office hour per week for every class taught, up to a maximum of four hours. The faculty member’s office hours, phone number, and email contact will be posted by the door and announced in the syllabus. (PS 02-10)

Cheating and Plagiarism

It is the policy of the faculty and administration to deal effectively with the student who practices cheating or plagiarism. These acts are fundamentally destructive of the process of education and the confident evaluation of a student’s mastery over a subject. A University maintains respect and functions successfully within the larger community when its reputation is built on honesty. By the same token, each student benefits in helping to maintain the integrity of the University. This policy, therefore, provides for a variety of faculty actions including those which may lead to the assignment of a failing grade for a course and for administrative actions which may lead to
dismissal from the University. This document is written with the intent to support the traditional values that students are on their honor to perform their academic duties in an ethical manner.

General

The following definitions of cheating and plagiarism shall apply to all work submitted by a student. Any change or refinement in the following definitions or applications of the definitions, necessitated by the nature of the work involved, shall be made by the faculty member or departments desiring the change. Any change shall be announced, in writing, in the relevant classes before the work is assigned and a copy of the changes will be filed in the department office and in the Office of Judicial Affairs.

Definition of Plagiarism

Plagiarism is defined as the act of using the ideas or work of another person or persons as if they were one’s own, without giving credit to the source. Such an act is not plagiarism if it is ascertained that the ideas were arrived at through independent reasoning or logic or where the thought or idea is common knowledge. Acknowledgment of an original author or source must be made through appropriate references, i.e., quotation marks, footnotes, or commentary. Examples of plagiarism include, but are not limited to, the following: the submission of a work, either in part or in whole, completed by another; failure to give credit for ideas, statements, facts or conclusions which rightfully belong to another; in written work, failure to use quotation marks when quoting directly from another, whether it be a paragraph, a sentence, or even a part thereof; or close and lengthy paraphrasing of another’s writing or programming. A student who is in doubt about the extent of acceptable paraphrasing should consult the instructor. Students are cautioned that, in conducting their research, they should prepare their notes by (a) either quoting material exactly (using quotation marks) at the time they take notes from a source; or (b) departing completely from the language used in the source, putting the material into their own words. In this way, when the material is used in the paper or project, the student can avoid plagiarism resulting from verbatim use of notes. Both quoted and paraphrased materials must be given proper citations.

Definition of Cheating

Cheating is defined as the act of obtaining or attempting to obtain or aiding another to obtain academic credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of cheating during an examination would include, but not be limited to the following: copying, either in part or in whole, from another test or examination; discussion of answers or ideas relating to the answers on an examination or test unless such discussion is specifically authorized by the instructor; giving or receiving copies of an exam without the permission of the instructor; using or displaying notes; "cheat sheets," or other information or devices inappropriate to the prescribed test conditions, as when the test of competence includes a test of unassisted recall of information, skill, or procedure; allowing someone other than the officially enrolled student to represent the same. Also included are plagiarism as defined and altering or interfering with the grading procedures. It is often appropriate for students to study together or to work in teams on projects. However, such students should be careful to avoid use of unauthorized assistance, and to avoid any implication of cheating, by such means as sitting apart from one another in examinations, presenting the work in a manner which clearly indicates the effort of each individual, or such other method as is appropriate to the particular course.

Faculty Responsibilities in Allegations of Cheating or Plagiarism

Before a faculty member charges a student with cheating or plagiarism, the faculty member should have reasonable evidence with respect thereto. Reasonable evidence includes documentary or other physical evidence, personal observation, or testimony. Prior cheating or plagiarism is not reasonable evidence. In order to establish facts of the student’s knowledge or skill, the faculty member may ask the student to provide such additional demonstration of competency as the faculty member deems necessary to evaluate scholarship and academic performance. The faculty member must advise the student that a decision to provide an opportunity for such an additional demonstration of competency is entirely at the faculty member’s option and that the student may comply with the request of the faculty member at the student’s option. Neither compliance nor non-compliance shall be considered an admission of cheating or plagiarism.

In cases where a student is suspected of cheating or plagiarism, the faculty member should arrange for an informal office conference with the student as soon as possible. The purpose of the informal conference is to bring the persons involved together to discuss the issues informally and to discuss courses of action. At the conference the student shall be notified by the faculty member of the charge and supporting evidence. For an incident which occurs during or as a part of a final examination consult the section just below.

In cases where there is more than one individual suspected of cheating or plagiarism, the faculty member may decide to call the students to confer jointly as a group, or as individuals, or both. If the faculty member should decide to confer with the students as a group, the students shall have the option to also confer with the instructor separately as individuals.

The faculty member shall inform the student(s) that both students and faculty have the right to submit a request to the Academic Integrity Committee (discussed below) for a written opinion on whether the accusation is supported by the evidence. All notes and discussions between the student and the faculty member are confidential, except as may be relevant to the Academic Integrity Committee or in subsequent campus disciplinary proceedings. Neither the faculty member nor the student should discuss a specific charge of cheating or plagiarism or any violations with reference to individuals in the classroom before other members of the class.

When the student cannot be contacted and therefore the informal conference cannot be held, as is sometimes the case after final examinations, a grade of "I" (Incomplete) may be assigned, but only if the instructor wishes an additional test of competence (see section just above). The
Whenever cases of academic dishonesty are handled by the provost and the vice president for student affairs a recommendation as to whether or not additional action should be considered by the Academic Integrity Committee to reconsider a case. The Academic Integrity Committee to report on its actions annually to the Vice President for Academic Affairs and the Chair of the Academic Senate.

**Academic Action**

One or more of the following academic actions are available to the faculty member who finds a student has been cheating or plagiarizing. These options may be taken by the faculty member to the extent that the faculty member considers the cheating or plagiarism to manifest the student's lack of scholarship or to reflect on the student's lack of academic performance in the course. These actions may be taken without a request for or before the receipt of a Report from the Academic Integrity Committee.

- **A. Review – no action.**
- **B. An oral reprimand with emphasis on counseling toward prevention of further occurrences;**
- **C. A requirement that the work be repeated;**
- **D. Assignment of a score of zero (0) for the specific demonstration of competence, resulting in the proportional reduction of final course grade;**
- **E. Assignment of a failing final grade;**
- **F. Referral to the Office of Judicial Affairs for possible probation, suspension, or expulsion.**

Academic dishonesty cases that occur in the classroom shall be handled by faculty members. After a faculty member takes action, the faculty member shall complete a "Student Academic Dishonesty Report" form that identifies the student who was found responsible, the general nature of the offense, the action taken, and a recommendation as to whether or not additional action should be considered by the campus Judicial Affairs Office. The faculty member shall send a completed "Student Academic Dishonesty Report" form to the Vice President for Student Affairs and Provost whenever academic dishonesty cases are handled by the faculty member.

A student may appeal a final course grade the computation of which included an examination or other test of competence in which a score of zero was assigned for
cheating or plagiarism, but only on the grounds permitted in the University Grade Appeal Policy Statement. An appeal of the final grade may include as written testimony the Report of the Academic Integrity Committee.

**Disciplinary Sanctions – Administrative Action**

Procedures and sanctions of the Office of Judicial Affairs are under the administration of the Vice President for Student Services and are conducted pursuant to the authority provided in Section 41301 of Title 5 of the California Administrative Code. Copies of Section 41301 of Title 5 may be found in the University Bulletin and the Campus Regulations available in the Office of Judicial Affairs. Copies of Chancellor’s Executive Order 148, “Student Disciplinary Procedures for the California State University” are also available upon request.

Opportunities for appeal regarding the sanctions applied by Vice President for Student Services are provided for students involved in the proceedings as outlined by Executive Order 148.

For a summary of the charges concerning cheating and plagiarism report to the Vice President for Student Services. (PS 08-02)

**Student Unit Load**

**Recommended Student Load**

The faculty recognizes that it is frequently necessary for students to hold part-time jobs while attending the University. It advises that students enrolling under these conditions use good judgment in planning their programs. Students whose outside employment could be expected to interfere with the normal unit load should reduce their academic program accordingly.

The official unit limit per fall or spring semester is 18 units. Students seeking to exceed the 18-unit limit must complete an Extra Unit Petition form available on the Enrollment Services website.

Students are expected to spend, on the average, two hours of preparation and study for each hour of class time. Thus, a three-unit lecture or discussion course normally demands a commitment of nine hours per week averaged over the semester, with the class meeting for three hours a week. This may be considered sufficient time to enable a student to do satisfactory work. Students who desire to achieve "A" or "B" grades may wish to spend proportionately more time in their studies.

A student’s employment and college time combined should not exceed 60 hours weekly. Students who make no allowances for their employment and outside obligations in planning their college programs will bear full responsibility for the resulting level of scholarship.

**Minimum Unit Requirements for Students in Special Classifications**

**Veterans**

In consideration of the Veterans Affairs Services requirement to equitably certify student veteran benefits in accordance with Title 38 of the United States Code, a post-baccalaureate student veteran in a credit-limited program is considered full-time as long as he or she is enrolled in those courses that are required by the educational program being pursued. Full-time status is awarded to all post-baccalaureate and graduate students who have less than nine (9) units when no other units are offered in their program. This status must be approved and coordinated with the Office of Veterans Affairs Services, located in the Foundation building, Suite 265. For information, call (562) 985-5115 or (562) 985-4279.

**Graduate Students**

For information about graduate student load, see regulations governing Master’s Degrees in this Catalog.

**International Students**

Undergraduate international students on non-immigrant visas must carry and complete a minimum of 12 units per semester unless a reduced load is authorized by the student’s advisor and the Center for International Education. Reduced unit loads may be granted for substantial academic reasons or compelling personal reasons beyond the control of the student. Failure to secure such authorization results in violation of student status under Immigration and Naturalization Service (INS) and State Department regulations, warranting discontinuance of enrollment.

**Students with Disabilities**

It is recommended that students with disabilities attempt to modify their schedules, as necessary, to lessen the impact of a disability. Students with disabilities may request to enroll in a unit load which is commensurate with their ability. Reduced unit load is defined as less than 12 units for undergraduates and less than 9 units for graduates. Such requests must be made to Disabled Student Services prior to each semester affected. If approved, the student will be entitled to all benefits, services, and activities governed by the University which are accorded to full-time students. Eligibility for benefits, services, and activities outside the University’s control will be governed by each separate external agency based upon actual unit load.

**Student Load Regulations**

1.0 **MAXIMUM STUDENT LOAD DURING THE FALL AND SPRING SEMESTERS**

1.1 A student pursuing a baccalaureate degree or a credential program carrying 12 or more units during the fall or spring semester is classified as a full-time student. A student pursuing a post-baccalaureate certificate or master’s degree carrying 8 or more units or a student pursuing a doctoral degree carrying 6 or more units during the fall or spring semester is also classified as a full-time student. These definitions derive from federal financial aid regulations and have no bearing on the definitions used by the State of California to determine a student's liability for the State University Fee.

1.2 The maximum number of units a student may take during the fall or spring semester is normally 18 for undergraduate, graduate, or post-baccalaureate students.

1.3 Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that it is necessary to enroll for an overload in order to complete the student's chosen academic program in a timely manner. Permission must be obtained from the office of the Division of Academic Affairs prior to registration.

54 • Academic Information and Regulations • 2016-2017 CSULB Catalog
2.0 MAXIMUM STUDENT LOAD DURING THE SUMMER TERM

2.1 The maximum number of units a student may take during the summer term is one unit per week, plus one additional unit. Thus, the maximum number of units is normally 7 for a 6-week session, 10 for two overlapping sessions, and 14 for an entire summer.

2.2 Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that the extra units will enable the student to graduate in that or the immediately subsequent term. Permission must be obtained from the office of the Division of Academic Affairs prior to registration.

3.0 MAXIMUM STUDENT LOAD DURING THE WINTER SESSION

3.1 The maximum number of units a student may take during the winter session is one unit per week, plus one additional unit. Thus, the maximum number of units is normally 4.

3.2 Exceptions to this limit will be made only on the basis of proven academic ability, the feasibility of a student's proposed schedule, and the evidence that the extra units will enable the student to graduate in that or the immediately subsequent term. Permission must be obtained prior to registration from the Associate Dean of the college of the student's major department.

Course Listings

Courses are listed in this Catalog by department, the departments and programs being arranged alphabetically. Each listing gives the course number, title, semester units in parentheses, and the course description, which includes prerequisites and other restrictions.

Course Numbers

Courses with a number of less than 100 do not count toward any degree program. For purposes of qualifying for financial aid, however, the unit value assigned to those courses will count for the semester in which those courses were taken. Lower-division courses are numbered from 100 through 299. These courses are designed primarily for Freshmen and Sophomores. They provide breadth of understanding and the foundation for the more specialized work in upper-division, advanced courses. Approved General Education courses are listed online and are offered at both the lower-division and upper-division levels; no upper-division General Education course may be used in a graduate degree program. Lower-division courses are open to Junior, Senior, and Graduate students; however, lower-division courses may not be applied to any graduate degree program.

Upper-division courses are numbered from 300 through 499. These courses are open to students who have completed the prerequisites to the course, if any, stated in the course description and other departmental regulations given in this Catalog. A "Prerequisite" is a completed course or other measure of academic preparation which provides a foundation for the more advanced course.

Freshmen (fewer than 30 units) are not allowed to enroll in upper-division courses without permission of the instructor. Sophomores wishing to enroll in upper-division courses which indicate no prerequisites should consult with the course instructor or other knowledgeable advisor prior to enrollment. These courses are presented to meet the expectations of academically advanced students.

Certain 400-level courses are double-numbered with 500-level courses. In these courses the expectations of graduate students, who must enroll in the 500-level course, are greater than the expectations of undergraduates. Grading scales are different for the 500-level course and additional work is required of graduate students. A student may not earn credit for both the 400- and 500-level versions of a course.

Graduate-level courses are numbered from 500 to 799. Courses numbered 500-599 may be opened to senior students upon favorable petition. Courses numbered from 600 to 799 are open only to graduate students.

Included with some of the course numbers is a supplementary letter, or suffix, such as L for "laboratory" or A and B for a year-long sequence. "A-B" means that the courses must be taken in alphabetical sequence; "A,B" designates related courses which need not be taken in sequence. The student is given degree credit for each part of the sequence satisfactorily completed, whether or not the remaining part of the sequence is completed. Funding, student demand, and instructor availability may require that a course be offered in a different semester or session or be postponed until a later academic year. The online class schedule appropriate to the semester or session in question should be consulted for actual course scheduling information. Some of the courses offered during the fall and spring semesters are also offered during the summer session.

The University reserves the right to make changes in course offerings without notice.

Course Credit Units and Modes of Instruction

Course Credit Units

Each course has a specific credit unit value which is indicated in parentheses following the course titles in this Catalog.

In accordance with national standards, each semester unit corresponds to approximately 45 hours of work per semester, counting both class meeting time and outside preparation and study. For a traditional lecture or discussion course, this means that the class will meet one hour a week for every unit in a fall or spring semester (15 weeks of class meetings). For a laboratory or activity course, the class may meet two or three hours per week for every unit.

The instructional "hour" is fifty minutes long, allowing for transit between classes and rest breaks within multi-hour classes.

Classes scheduled in the six-week summer session, or in a three-week summer or winter session, are scheduled for additional class hours per week so the total meeting time is the same as in a fall or spring semester. Classes taught by other modes of instruction are expected to require the same time commitment as traditionally-scheduled classes.
Hybrid Classes and Distance Education Classes

Some classes use academic technology to replace part or all of the face-to-face class meetings. In a hybrid class, one-third to two-thirds of the student/faculty and student/student contact time uses academic technology to structure remote activities. The remaining communication is face-to-face, similar to traditional classes. A Local Online Class is a course offering in which the majority of the instruction occurs when the student and instructor are not in the same place, but it may require up to two hours of face-to-face meetings per unit on the California State University, Long Beach campus within the given semester. A Distance Education Class is a course offering in which communication between faculty and student occurs primarily via academic technology, but it may also include off-site meetings. The mode of instruction is indicated in the online class schedule for each term. (PS 03-11)

Student Rights Relative to Course Instructional Mode

1. Student access to the faculty shall not be reduced by the instructional mode of a class.
2. The University shall make every effort to inform students of the mode of instruction and technological requirements of a course offering before the student enrolls in the class.
3. Matriculated students enrolled in non-traditional classes shall have access to the on-site academic advising services at California State University, Long Beach.
4. All students have equal access to the University library and other on-site learning resources offered at California State University, Long Beach.
5. Students in non-traditional classes shall have reasonable support services. These include:
   A. Phone-based and online technology help to handle student questions and to refer students to appropriate available services for hybrid and local online or distance education courses;
   B. Online and phone-based access to university administrative services;
   C. Online dissemination of information describing the resources available for obtaining the technical competence needed to succeed in a specific course offering;
   D. Online access to the library research databases and other research-related resources.
6. The University shall provide adequate technical support for academic technology.

Credit for Independent Study Courses

Each student enrolled in a supervised independent study, research, or reading course (excludes thesis courses) must have an agreement on file in the department office where the course is offered. The agreement is to be made between the student and the instructor at the beginning of the course and must include the following: a description of the work to be accomplished, specific information on the tasks required, the nature of the final report, and the basis for determining the final grade. The agreement must be signed by both the instructor and the student.

If a department wishes to use a written agreement different from the standard university form, it must be approved by the dean of the appropriate college prior to its use.

No independent study credit shall be awarded for classroom instruction, assisting in classroom instruction, or for other instructionally related activities, such as grading.

Credit for Cross-Listed Courses

Certain courses are listed in this Catalog under more than one department. For purposes of awarding credit, all such listings are considered to be the same course, and a student may receive credit for only one of the listings. Normally, students will receive credit for such a cross-listed course in the department under which they registered.

Transfer Credit

Students who were in good standing at another accredited institution may, within maximums, transfer credit for baccalaureate or graduate degree course work. Course equivalency for major requirements must be determined. Students are cautioned that the University is under no obligation to accept transferred courses for subject credit in addition to unit credit for admission. Normally, however, there is a probability that courses in the accepted core of a discipline will be exchangeable between universities. Policy regarding transfer of courses from California community colleges differs in some respects.

Transfer of Undergraduate Credit From Accredited Community Colleges

A maximum of 70 semester units earned in a community college may be applied toward the baccalaureate degree, with the following limitations and stipulations:
1. No upper-division credit may be allowed for courses taken in a community college;
2. Individual program regulations may include specific transfer limitations along with other requirements.
3. Students who transfer general education certification are still required to complete at least 9 units of upper-division courses at the campus conferring the degree.
4. Any course taken at community colleges can substitute for general education breadth requirements and lower-division requirements, if the course is approved as equivalent to the appropriate CSULB course. Students with more than 70 transferable units from community colleges will get subject matter credit for all such courses, but no more than 70 units will count toward degree units.
5. All transferable units taken at community colleges will count toward computation of the overall grade-point average. All transferable units in the major taken at community colleges will count toward computation of the overall major grade-point average.

Courses Taken by Non-Matriculated Students in Any Term

No more than 24 units total taken during any term while in non-matriculated status may be used to fulfill any undergraduate degree requirements. All students who have not been formally admitted to CSULB and who take courses here are non-matriculated students. Courses taken by incoming freshmen during the summer prior to their first fall are considered non-matriculated units. Students looking to
transfer units to a graduate program may take up to 9 units.

**Open University**

Open University — Through Open University, students who are NOT matriculated in CSULB may take regular university classes during spring or fall semesters for academic credit on a "space available" basis with permission of the department chair and the course instructor. Open University enrollment does NOT constitute admission to CSULB. For more information call the College of Continuing and Professional Education at (562) 985-5561.

**Self Support Courses**

There is no limit on CCPE Self Support course credits, including Winter, May and Summer Session, applicable to the degree if taken while in matriculated status in the degree program.

**Baccalaureate Credit Based on Alternative Means of Assessment**

The University grants credit toward the baccalaureate degree based on several types of assessment other than formal university courses. Students should consult the Chair or undergraduate advisor of the department about applicability to individual courses or degree requirements.

**Advanced Placement Credit**

California State University, Long Beach grants credit toward its undergraduate degrees for successful completion of Advanced Placement (AP) examinations of the College Board. Students who present official scores directly from College Board of three or better will be granted up to six semester units (nine quarter units) of college credit for each AP course. The University grants credit toward the baccalaureate program.

There is no limit on CCPE Self Support course credits, including Winter, May and Summer Session, applicable to the degree if taken while in matriculated status in the degree program.

For the most up-to-date AP credit information, click the "Admission" icon on the CSULB Enrollment Services Web page, and follow the links under "Freshmen" or "Transfer".

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### ADVANCED PLACEMENT EXAMINATIONS CREDIT

<table>
<thead>
<tr>
<th>AP Exam</th>
<th>AP Score</th>
<th>GE Designation</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3</td>
<td>4-5</td>
<td>C.1 Fine Arts, C.1 Fine Arts, ART - 6 units electives, AH 111A - 3 units &amp; AH 111B - 3 units</td>
</tr>
<tr>
<td>Art Studio: 2D Design</td>
<td>3-5</td>
<td>No GE Credit</td>
<td>ART - 3 units electives</td>
</tr>
<tr>
<td>3D Design</td>
<td>3-5</td>
<td>No GE Credit</td>
<td>ART - 3 units electives</td>
</tr>
<tr>
<td>Drawing Portfolio</td>
<td>3-5</td>
<td>No GE Credit</td>
<td>ART - 6 units electives</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>B.1a Life Science w/lab, B.1a Life Science w/lab</td>
<td>BIOL 200 - 4 units &amp; 2 units, BIOL electives, BIOL 200 - 4 units &amp; 2 units, BIOL electives, BIOL 211 - 3 units &amp; BIOL 212 (not GE) 3 units</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>B.1b Physical Science w/lab, B.1b Physical Science w/lab</td>
<td>CHEM 100 - 4 units &amp; 2 units, CHEM electives, CHEM 111A - 5 units &amp; 1 unit CHEM electives</td>
</tr>
</tbody>
</table>

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### AP Exam Details:

- **Chinese Language and Culture**: 3 units, C.2c Foreign Language, CHIN 201 - 4 units, 2 units CHIN electives, CHIN 202 - 4 units & CHIN 490 - 2 units
- **Computer Science A**: 3-5 units, No GE credit, 3 units elective, CECS 174
- **Economics**:
  - **Macro**: 3-5 units, D.2 Social & Behavioral Science, ECON 100 - 3 units
  - **Micro**: 3-5 units, D.2 Social & Behavioral Science, ECON 101 - 3 units
- **English**:
  - **Language & Composition**: 3-5 units, A.1, ENGL 100 - 3 units & 3 units ENGL electives, ENGL 100 - 3 units & ENGL 180 - 3 units
  - **Literature & Composition**: 3-5 units, A.1 & C.2a, ENGL 100 - 3 units & 3 units ENGL electives, ENGL 180 - 3 units
- **Environmental Science**: 3,4,5 units, B.1b Physical Science w/lab, 4 units elective
- **French**:
  - **Language and Culture**: 3,4,5 units, C.2c Foreign Language, FREN 201A - 4 units & FREN 201B - 2 units, FREN 201B, 4 units & FREN 201A - 2 units
- **German**:
  - **Language and Culture**: 3,4,5 units, C.2c Foreign Language, GERM 398 - 3 units & 3 units GERM electives, GERM 398 - 3 units, & GERM 498 - 3 units
- **Geography**:
  - **Human Geography**: 3,4,5 units, D.2, GEOG 160 - 3 units & 3 units GEOG electives
- **History**:
  - **United States**: 3-5 units, D.1a (HIST 172) & D.2 (HIST 173), HIST 172 - 3 units & HIST 173 - 3 units
  - **European**: 3-5 units, D.2 (HIST 131) & D.2 (HIST 132), HIST 131 - 3 units & HIST 132 - 3 units
  - **World History**: 3-5 units, D.2 Global, HIST 212 - 3 units & 3 units electives
- **Italian**: 3,4,5 units, C.2c Foreign Language, C.2c Foreign Language, ITAL 201A - 4 units & 2 units ITAL electives, ITAL 201B - 4 units & 2 units ITAL electives
- **Japanese Language and Culture**: 3,4,5 units, C.2c Foreign Language, C.2c Foreign Language, JAPN 102 - 4 units, & JAPN 101 - 2 units, JAPN 201 - 4 units, & JAPN 102 - 2 units, JAPN 202 - 4 units, & JAPN 201 - 2 units
- **Latin**: 3,4,5 units, C.2c Foreign Language, LAT 101B - 2 units & LAT 301 - 2 units & LAT 401 2 units
- **Mathematics**:
  - **Calculus AB****: 3-5 units, B.2, MATH 113 - 2 units & MATH 122 - 4 units
  - **Calculus BC**: 3-5 units, B.2, MATH 122 - 2 units & MATH 123 - 4 units
- **Music**: 3-5 units, No GE credit, MUS - 6 units electives

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2016-2017 CSULB Catalog • Academic Information and Regulations • 57
Examinations Credit

<table>
<thead>
<tr>
<th>IB Exam</th>
<th>IB Score</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, Visual</td>
<td>5, 6, 7</td>
<td>ART electives - 4 units</td>
</tr>
<tr>
<td>Arts, Visual Option A</td>
<td>5, 6, 7</td>
<td>ART electives - 4 units</td>
</tr>
<tr>
<td>Arabic A: Literature</td>
<td>4, 5, 6, 7</td>
<td>ARAB 101A - 4 units &amp; 4 units ARAB 101B</td>
</tr>
<tr>
<td>Arabic A: Language and Literature</td>
<td>4, 5, 6, 7</td>
<td>ARAB 201A - 4 units &amp; 2 units ARAB electives</td>
</tr>
<tr>
<td>Arabic B</td>
<td>4, 5, 6, 7</td>
<td>ARAB 201B - 4 units &amp; 2 units ARAB electives</td>
</tr>
<tr>
<td>Biology</td>
<td>5</td>
<td>BIOL 200 - 4 units &amp; 2 units BIOL electives</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>BIOL 200 - 4 units &amp; 2 units BIOL electives</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>BIOL 211 - 3 units &amp; BIOL 212 - 3 units</td>
</tr>
<tr>
<td>Business &amp; Management</td>
<td>5, 6, 7</td>
<td>CBA electives - 4 units</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5, 6, 7</td>
<td>CHEM 111A - 5 units &amp; 1 unit CHEM elective</td>
</tr>
<tr>
<td>Chinese A: Literature</td>
<td>4, 5, 6, 7</td>
<td>3 units GE C.2c &amp; 3 units CHIN electives</td>
</tr>
<tr>
<td>Chinese A: Language and Literature</td>
<td>4, 5, 6, 7</td>
<td>3 units GE C.2c &amp; 3 units CHIN electives</td>
</tr>
<tr>
<td>Chinese B</td>
<td>4, 5, 6, 7</td>
<td>CHIN electives - 6 units</td>
</tr>
<tr>
<td>Classical Greek</td>
<td>4, 5, 6, 7</td>
<td>GK 101A - 4 units &amp; GK 101B - 4 units</td>
</tr>
<tr>
<td>Computer Science</td>
<td>5, 6, 7</td>
<td>CECS electives - 4 units</td>
</tr>
<tr>
<td>Dance</td>
<td>5, 6, 7</td>
<td>4 units of electives</td>
</tr>
<tr>
<td>Design Technology</td>
<td>5, 6, 7</td>
<td>4 units of electives</td>
</tr>
<tr>
<td>Economics</td>
<td>5, 6, 7</td>
<td>ECON 100 - 3 units &amp; ECON 101 - 3 units</td>
</tr>
<tr>
<td>English A: Literature</td>
<td>4, 5, 6, 7</td>
<td>ENGL 100 - 3 units &amp; ENGL 180 - 3 units</td>
</tr>
<tr>
<td>English A: Language and Literature</td>
<td>4, 5, 6, 7</td>
<td>ENGL 100 - 3 units &amp; ENGL 180 - 3 units</td>
</tr>
<tr>
<td>English B</td>
<td>4, 5, 6, 7</td>
<td>ENGL 100 - 3 units &amp; ENGL 180 - 3 units</td>
</tr>
<tr>
<td>Film in English</td>
<td>5, 6, 7</td>
<td>ENGL electives - 4 units</td>
</tr>
<tr>
<td>French A: Literature</td>
<td>4, 5, 6, 7</td>
<td>FREN 312A - 3 units &amp; FREN 312B - 3 units &amp; FREN 411 - 3 units</td>
</tr>
<tr>
<td>French A: Language and Literature</td>
<td>4, 5, 6, 7</td>
<td>FREN 312A - 3 units &amp; FREN 312B - 3 units &amp; FREN 411 - 3 units</td>
</tr>
<tr>
<td>French B</td>
<td>4, 5, 6, 7</td>
<td>FREN 312A - 3 units &amp; FREN 312B - 3 units &amp; FREN 314 - 3 units</td>
</tr>
<tr>
<td>Geography</td>
<td>5, 6, 7</td>
<td>GEOG 100 - 3 units &amp; 3 units GEOG elective</td>
</tr>
</tbody>
</table>

**Notes for Advanced placement:**

** Credit is awarded for a 3-5 on the AB exam score or the AB subscore on the BC exam.

*** If a student passes more than one AP exam in physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to a certification in GE Breadth.

A maximum of 6 units will be granted for each exam. If the number of units per course equivalency exceeds 6, credit for 6 units will be awarded and the course waived. Credit can only be awarded once per course. Example: if a student takes Calculus AB & BC, only nine units can be awarded.

**International Baccalaureate Credit**

Students with scores of 5 or higher (4 in certain subjects) in International Baccalaureate Higher Level courses will be awarded baccalaureate credit of 4 to 10 units, depending on course equivalency. Applicants to CSULB who wish to obtain lower-division course credit for completed International Baccalaureate Higher Level examinations must submit an official IB transcript. Course equivalency for Higher Level examinations completed with satisfactory scores is listed in the International Baccalaureate Examination Credit table that follows.

For the most up-to-date IB credit information, click the "Admission" icon on the CSULB Enrollment Services Web page, and follow the links under "Freshmen" and "Transfer."
<table>
<thead>
<tr>
<th>Subject</th>
<th>Course Code</th>
<th>Units</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>German Literature A:</td>
<td>GERM 398</td>
<td>3 &amp; GERM 498</td>
<td>3 units</td>
</tr>
<tr>
<td>German Language and Literature A:</td>
<td>GERM 398</td>
<td>3 &amp; GERM 498</td>
<td>3 units</td>
</tr>
<tr>
<td>German B</td>
<td>GERM 201A</td>
<td>4 &amp; GERM 201B</td>
<td>4 units</td>
</tr>
<tr>
<td>History of Africa</td>
<td></td>
<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
</tr>
<tr>
<td>History of the Americas</td>
<td></td>
<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
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<tr>
<td>History of Asia: East &amp; Southeast Asia &amp;</td>
<td></td>
<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
</tr>
<tr>
<td>Oceania</td>
<td></td>
<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
</tr>
<tr>
<td>South Asia and the Middle East</td>
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<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
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<tr>
<td>History of Europe</td>
<td></td>
<td>HIST 132 - 3 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
</tr>
<tr>
<td>History of Europe and the Middle East</td>
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<td>HIST 132 - 3 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
</tr>
<tr>
<td>History and Culture Islamic World</td>
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<td>3 units GE D2 &amp; 3</td>
<td>History &amp; 3 units HIST credits</td>
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<tr>
<td>Information Technology in a Global Society</td>
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<td>4 units of electives</td>
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<tr>
<td>Italian Literature A:</td>
<td>ITAL 312A</td>
<td>3 &amp; ITAL 312B</td>
<td>3 units &amp; ITAL 411 - 3 units</td>
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<tr>
<td>Italian Language and Literature A:</td>
<td>ITAL 312A</td>
<td>3 &amp; ITAL 312B</td>
<td>3 units &amp; ITAL 411 - 3 units</td>
</tr>
<tr>
<td>Italian B</td>
<td>ITAL 312A</td>
<td>3 &amp; ITAL 312B</td>
<td>3 units &amp; ITAL 411 - 3 units</td>
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<tr>
<td>Japanese Literature A:</td>
<td>JAPN 371</td>
<td>3 &amp; JAPN 421</td>
<td>3 units &amp; JAPN 471 - 3 units</td>
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<td>3 &amp; JAPN 421</td>
<td>3 units &amp; JAPN 471 - 3 units</td>
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<td>Japanese B</td>
<td>JAPN 201</td>
<td>- 4 &amp; JAPN 202</td>
<td>- 4 units</td>
</tr>
<tr>
<td>Korean Literature A:</td>
<td>KOR 102</td>
<td>4 &amp; 2 units KOR</td>
<td>4 units &amp; 2 units KOR electives</td>
</tr>
<tr>
<td>Korean Language and Literature A:</td>
<td>KOR 102</td>
<td>4 &amp; 2 units KOR</td>
<td>4 units &amp; 2 units KOR electives</td>
</tr>
<tr>
<td>Korean B</td>
<td>KOR 102</td>
<td>4 &amp; 2 units KOR</td>
<td>4 units &amp; 2 units KOR electives</td>
</tr>
<tr>
<td>Latin</td>
<td>LAT 301</td>
<td>4 units &amp; 2 units</td>
<td>4 units &amp; 2 units upper division Latin electives</td>
</tr>
<tr>
<td>Math - Higher Level</td>
<td>MATH 114</td>
<td>3 &amp; MATH 122</td>
<td>3 units &amp; MATH 122 - 4 units</td>
</tr>
<tr>
<td>Further Mathematics - Higher Level</td>
<td></td>
<td>4 units of lower</td>
<td>4 units of lower division Math</td>
</tr>
<tr>
<td>Music</td>
<td>MUS 160</td>
<td>3 &amp; MUS 490</td>
<td>3 units</td>
</tr>
<tr>
<td>Philosophy</td>
<td></td>
<td>5, 6, or 7</td>
<td>PHIL 100 - 3 units &amp; 1 unit PHIL</td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td>5, 6, or 7</td>
<td>PHYS 100A - 4 units &amp; PHYS 100B - 4 units</td>
</tr>
<tr>
<td>Portuguese Language and Literature A:</td>
<td>PORT 100</td>
<td>6 units</td>
<td>PORT 100 - 6 units</td>
</tr>
<tr>
<td>Portuguese B</td>
<td></td>
<td>5, 6, or 7</td>
<td>PORT 200 - 6 units</td>
</tr>
<tr>
<td>Portuguese</td>
<td></td>
<td>4, 5, 6, or 7</td>
<td>PORT 201B - 4 units &amp; 2 units PORT</td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td>5, 6, or 7</td>
<td>PSY 100 - 3 units &amp; 1 unit PSY</td>
</tr>
<tr>
<td>Russian Language and Literature A:</td>
<td>RUSS 312</td>
<td>3 units &amp; RUSS 314</td>
<td>3 units &amp; 3 units upper division</td>
</tr>
<tr>
<td>Russian B</td>
<td></td>
<td>4, 5, 6, or 7</td>
<td>RUSS 201A - 4 units &amp; RUSS 201B - 4 units</td>
</tr>
<tr>
<td>Social and Cultural Anthropology</td>
<td></td>
<td>5, 6, or 7</td>
<td>4 units ANTH electives</td>
</tr>
<tr>
<td>Spanish Language and Literature A:</td>
<td>SPAN 300</td>
<td>6 &amp; SPAN 314</td>
<td>3 units &amp; 3 units upper division</td>
</tr>
<tr>
<td>Spanish B</td>
<td></td>
<td>4, 5, 6, or 7</td>
<td>SPAN 300 - 6 units</td>
</tr>
<tr>
<td>Theatre Arts</td>
<td></td>
<td>4, 5, 6, or 7</td>
<td>THEA 122 - 3 units &amp; 3 units THEA</td>
</tr>
</tbody>
</table>

**Credit for Other External Examinations**

In addition to the Advanced Placement and International Baccalaureate Examinations, California State University, Long Beach grants unit credit to those students who pass the College Level Examination Program (CLEP) examinations in certain subjects that have been approved for credit by the CSU System.

Refer to the College Level Examination Program Credit table that follows, for transfer credit awarded.

<table>
<thead>
<tr>
<th>CLEP Exam</th>
<th>CLEP Score</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting, Principles of</td>
<td>50</td>
<td>3 units of elective credit</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>3 units GE C2a Literature</td>
</tr>
<tr>
<td>Analyzing &amp; Interpreting</td>
<td>50</td>
<td>3 units GE C2a Literature</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>BIOL 200 - 4 units</td>
</tr>
</tbody>
</table>
### COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP) CREDIT

<table>
<thead>
<tr>
<th>CLEP Exam</th>
<th>CLEP Score</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Law, Intro</td>
<td>50</td>
<td>3 units BLAW elective credit</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>3 units GE B1aNL Physical Sciences without Laboratory</td>
</tr>
<tr>
<td>Economics: Macro</td>
<td>50</td>
<td>ECON 100 - 3 units</td>
</tr>
<tr>
<td>Micro</td>
<td>50</td>
<td>ECON 101 - 3 units</td>
</tr>
<tr>
<td>Educational Psychology, Introduction to</td>
<td>50</td>
<td>3 units elective credit</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>3 units GE C2a Literature</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>50</td>
<td>3 units elective credit</td>
</tr>
<tr>
<td>French: Language, Level 1</td>
<td>50-55</td>
<td>FREN 101A - 4 units &amp; FREN 101B - 4 units</td>
</tr>
<tr>
<td>Language, Level 2</td>
<td>59-100</td>
<td>FREN 201A - 4 units &amp; FREN 201B - 4 units</td>
</tr>
<tr>
<td>German: Language, Level 1</td>
<td>50-59</td>
<td>GERM 101A - 4 units &amp; GERM 101B - 4 units</td>
</tr>
<tr>
<td>Language, Level 2</td>
<td>60-100</td>
<td>GERM 201A - 4 units &amp; GERM 201B - 4 units</td>
</tr>
<tr>
<td>History, United States I</td>
<td>50</td>
<td>3 units GE D1a U.S. History</td>
</tr>
<tr>
<td>History, United States II</td>
<td>50</td>
<td>3 units GE D1a U.S. History</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3 units GE area E Lifelong Learning and Self-Development</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>3 units GE C3 Other Humanities</td>
</tr>
<tr>
<td>Information Systems &amp; Computer Applications</td>
<td>50</td>
<td>3 units elective credit</td>
</tr>
<tr>
<td>Management, Principles</td>
<td>50</td>
<td>3 units elective credit</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
<td>50</td>
<td>3 units elective credit</td>
</tr>
<tr>
<td>Mathematics: College Mathematics</td>
<td>50</td>
<td>MATH 103 - 3 units</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>MATH 113 - 3 units</td>
</tr>
<tr>
<td>PreCalculus</td>
<td>50</td>
<td>MATH 113 - 3 units</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>MATH 122 - 4 units</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>3 units of GE B1aNL Life Science without Laboratory OR 3 units of GE B1aNL Physical Science without Laboratory</td>
</tr>
<tr>
<td>Political Science: American Government</td>
<td>50</td>
<td>POSC 100 - 3 units (does not include California State and local government)</td>
</tr>
<tr>
<td>Psychology, Introductory</td>
<td>50</td>
<td>PSY 100 - 3 units</td>
</tr>
<tr>
<td>Sociology, Introductory</td>
<td>50</td>
<td>SOC 100 - 3 units</td>
</tr>
<tr>
<td>Spanish: Language, Level 1</td>
<td>50-62</td>
<td>SPAN 101B - 4 units &amp; 2 units SPAN electives</td>
</tr>
<tr>
<td>Language, Level 2</td>
<td>63-100</td>
<td>SPAN 201A - 4 units &amp; SPAN 201B - 4 units SPAN electives</td>
</tr>
<tr>
<td>Western Civilization I</td>
<td>50</td>
<td>3 units GE D2 Social Sciences and Citizenship</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>50</td>
<td>3 units GE D2 Social Sciences and Citizenship</td>
</tr>
</tbody>
</table>

**Unit Credit by Examination**

Students may also challenge some courses by taking examinations developed at the campus. Credit will be awarded to those who pass them successfully. Credits earned in this manner will be recorded as test credit on the student's transcript and will be counted toward the total number of units required for the degree although they will not be included in calculation of the grade-point average. Credit by examination may not be used to fulfill the minimum residence requirement.

Students must be enrolled in the University and in the course for which they wish to receive credit by examination. Enrollment is by permission of the department and is only available during the academic semester in which the course is being offered. Students must secure a signed and dated approval form from the department PRIOR to enrolling in the course. Students must provide the instructor with a copy of the signed and dated approval form at the first class meeting. The instructor will ensure that the examination is conducted, scored, and the results reported prior to the end of the third week of classes. Students who pass the examination will receive academic credit for the course work. Students who do not pass the examination have two options:

1. **continue in the course as a regular student; or**
2. **withdraw from the course.**

The University sets no maximum on the number of credits a student may receive by examination. Not all courses, however, are available for credit by examination. Information about courses for which credit by examination is not permitted is available in the Department Office, in the College Office, and the Office of Enrollment Services. A student may NOT receive credit by examination:

1. **for an activity course,**
2. **for any course which is a prerequisite to one for which credit has been received, (see department for possibility of course waiver),**
3. **to remove a grade of "F," "WU," "NC."
4. **to satisfy the courses required for a major in a master's degree.**
5. **for any course in which the content or methodology is such that an examination does not appropriately measure competence.**

Application forms to apply for credit by examination are available in department offices and in the Office of Enrollment Services. Procedures and criteria for requesting unit credit by examination in a given course are available in the appropriate department office. (PS 87-04)

**Substitution of Courses**

Students who believe that a course they have taken (or intend to take) may be appropriate to their program and that this course could substitute for a specified course requirement may request that the department submit an official authorization for substitution. Course substitutions are normally limited to cases where the required course cannot be offered or where the student has taken a similar but not identical course elsewhere. (PS 87-04)

**Waiver of Course Requirement**

In addition, students who believe that previous training has sufficiently prepared them in a certain area may request a waiver of a specific course requirement (subject credit only). The student will be required to justify the request in a way acceptable to the department. A waiver of specific course requirements does not reduce the total number of credits required for the major or the degree. (PS 87-04)
International Program Credit

Course credits earned in universities abroad may be accepted for degree credit at CSULB subject to evaluation by the cognizant department or program upon admission of the student to the university. CSULB students who desire, subsequent to admission, to take courses at a foreign university for degree credit must have each such course approved in advance in writing by the Chair of the appropriate department or program.

The Center for International Education administers many international education and exchange programs. Students fully accepted into one of these programs may, in most cases, continue CSULB residency while studying in the approved foreign institution. Some courses taken through these programs do not have to be approved in advance.

Credit for Noncollegiate Instruction

The California State University, Long Beach grants undergraduate degree credit for successful completion of noncollegiate instruction, either military or civilian, appropriate to the baccalaureate degree, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the Guide to the Evaluation of Educational Experience in the Armed Services and the National Guide to Educational Credit for Training Programs.

Final Course Grades, Grading Procedures, and Final Assessments

I. Part One: Definitions

The following definitions apply to final course grades assigned in all undergraduate and graduate courses:

"A" - Performance of the student has been at the highest level, showing sustained excellence in meeting all course requirements and exhibiting an unusual degree of intellectual initiative.

"B" - Performance of the student has been at a high level, showing consistent and effective achievement in meeting course requirements.

"C" - Performance of the student has been at an adequate level, meeting the basic requirements of the course.

"D" - Performance of the student has been less than adequate, meeting only the minimum course requirements.

"F" - Performance of the student has been such that minimal course requirements have not been met.

"CR/NC" - In some courses, the university permits students to select evaluation on a "Credit" or "No Credit" basis.

These grades are defined as follows: "CR" is usually equivalent to an "A," "B," or "C," and "NC" is equivalent to a "D," "F," or "WU" (defined below).

In two circumstances a final course grade of "CR" reflects work at the level of "B" or better, and a final course grade of "NC" reflects work at the level of "C," "D," "F," or "WU." Those two circumstances are:

1. In certain professional preparation courses, providing that the students are notified of such a policy both in class materials and in the catalog course description; and
2. For graduate students in all courses at the 300, 400, 500, and 600 levels.

Special regulations and procedures governing the "CR/NC" grading system are described below in Part Two. The following definitions apply to administrative grading symbols assigned in all undergraduate and graduate courses:

"AU" - "Audit." Enrollment as an auditor is subject to permission of the instructor, provided that enrollment in a course as an auditor shall be permitted only after students otherwise eligible to enroll on a credit basis have had an opportunity to do so. Auditors are subject to the same fee structure as credit students and regular class attendance is expected. It is the responsibility of the student to request from the instructor what is meant by regular class attendance. The symbol "AU" is posted to the student's permanent academic record unless the student fails to attend a sufficient number of class meetings. In these cases, the instructor will request that the student be administratively withdrawn from the course. Once enrolled as an auditor, a student may not change to credit status unless such a change is requested prior to the last day to add classes. A student who is enrolled for credit may not change to "Audit" after the last day to add classes.

"I" - "Incomplete." The symbol "I" indicates that a portion of required course work (normally not more than one-third) has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons and that there is still a possibility of earning credit. No instructor may assign an Incomplete if the student must attend a major portion of the class when it is next offered. No student may re-enroll in any course in which he/she has received an "I" until that "I" has been converted to a grade other than "I," i.e., "A," "B," "C," "D," "F," "CR," or "NC." In such cases, the instructor must assign a grade of "A," "B," "C," "D," "F," "CR," or "NC" based on the available assessments of that student's performance. It is the responsibility of the student with an "I" to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements that must be satisfied to remove the "Incomplete." A final course grade is assigned when that work has been completed and evaluated. An "I" must normally be made up within one calendar year immediately following the end of the term during which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an "I" being converted to an "F," except as noted in item 3 below. An extension of time may be granted for contingencies such as military service or documented, serious health or personal problems. The conditions for removal of the "Incomplete" shall be documented by the instructor on an "Assignment of Incomplete Grade" form. This form shall include a
A copy of the form is to be given to the student and a copy is to be filed with Enrollment Services within 30 calendar days after final course grades are submitted. When the work agreed upon has been completed and evaluated, a final course grade will be assigned by the instructor. If Enrollment Services does not receive an acceptable "Assignment of Incomplete Grade" form by 90 calendar days after the end of the semester, they will assign a grade of "WU" to the student instead of an "I." The "Assignment of Incomplete Grade" form will not be accepted if:

1. More than one-third of the work remains to be completed, and no justification has been provided;
2. The work required to complete the course has not been specified;
3. The faculty member failed to sign the form; or
4. The percentage fields have not been filled in, and no justification for their absence has been provided.

"RD" - "Report Delayed." This symbol is used exclusively by Enrollment Services to permit processing of all final course grades when the final course grades for an entire course section have not been reported by the instructor. The symbol does not imply any academic evaluation. Individual instructors may not assign "RD." Students who remain enrolled for whom the instructor has no assessments must receive a "WU."

"RP" - "Report in Progress." The "RP" symbol is used in connection with courses requiring multiple enrollment (i.e., that extend beyond one academic term). It indicates that work is in progress but that assignment of a final course grade must await completion of additional work. Re-enrollment is permitted prior to assignment of a final course grade provided the cumulative units attempted do not exceed the total number applicable to the student's educational objective. Work is to be completed within one calendar year immediately following the end of the term during which it was assigned except for graduate degree theses. If the "RP" symbol is not replaced by a final course grade within the specified time period or prior to the student's declared graduation date, it will be changed to a "W." An "RP" symbol cannot be replaced by an "I" (Incomplete) symbol; an "I" is not a final course grade.

"W" - "Withdrawal." The symbol "W" indicates that the student was permitted to drop a course after the second week of instruction with the approval of the instructor and appropriate campus official. It carries no connotation of quality of student performance and is not used in calculating grade point average.

Students are held responsible for completion of every course in which they register or for withdrawing during the first two weeks of a regular semester (13% of non-standard session) of classes from courses that they do not intend to complete. Application for withdrawal from CSULB or from a class must be officially filed by the student with Enrollment Services whether the student has ever attended the class or not; otherwise, the student will receive a grade of "WU" (unauthorized withdrawal) in the course.

Regulations governing the refund of student fees in the California State University system are prescribed by the CSU Board of Trustees; see California Code of Regulations, Title 5, Education, Section 41802.

1. Withdrawal during the first two weeks of instruction:
   Students may withdraw during this period and the course will not appear on their permanent records.

2. Withdrawal after the second week of instruction and prior to the final three weeks of the regular semester (20% of a non-standard session) of instruction:
   Withdrawals during this period are permissible only for serious and compelling reasons. The approval signatures of the instructor and department chair are required. The request and approvals shall state the reasons for the withdrawal. Students should be aware that the definition of "serious and compelling reasons" as applied by faculty and administrators may become narrower as the semester progresses. Copies of such approvals are kept on file by Enrollment Services.

3. Withdrawal during the final three weeks of instruction:
   Withdrawal during the final three weeks of instruction are not permitted except in cases such as accident or serious illness where the circumstances causing the withdrawal are clearly beyond the student's control and the assignment of an Incomplete is not practical. Ordinarily, withdrawal in this category will involve total withdrawal from the campus except that a Credit/No Credit grade or an Incomplete may be assigned for other courses in which sufficient work has been completed to permit an evaluation to be made. Request for permission to withdraw under these circumstances must be made in writing on forms available from Enrollment Services. The requests and approvals shall state the reasons for the withdrawal. These requests must be approved by the instructor of record, department chair (or designee), college dean (or designee), and the academic administrator appointed by the president to act in such matters. Copies of such approvals are kept on file by Enrollment Services.

4. Limits on Withdrawal
   No undergraduate student may withdraw from more than a total of 18 units. This restriction extends throughout
the entire undergraduate enrollment of a student at CSULB for a single graduation, including special sessions, enrollment by extension, and re-enrolling after separation from the university for any reason.

The following exceptions apply:

a. Withdrawals prior to the end of the second week of a semester (13%) of instruction at CSULB,
b. Withdrawals in terms prior to fall 2009 at CSULB,
c. Withdrawals at institutions other than CSULB, and
d. Withdrawals at CSULB for exceptional circumstances such as serious illness or accident (the permanent academic record will show these as a WE to indicate the basis for withdrawal).

5. Medical Withdrawal:

CSULB may allow a student to withdraw without academic penalty from classes if the following criteria are met:

a. A completed Medical Withdrawal Form, including any required documentation, is submitted to Enrollment Services before the end of the semester, and
b. The student presents evidence to demonstrate that a severe medical or debilitating psychological condition prevented the student from attending and/or doing the required work of the courses to the extent that it was impossible to complete the courses.

Although students will normally withdraw from all courses, those with serious and compelling reasons may withdraw from only some of their courses; such instances will require additional justification.

The academic administrator appointed by the president to act in such matters will review the evidence presented and, in consultation with appropriate medical or psychological professionals as needed, determine whether the request for a medical withdrawal should be granted. Once granted, all such medical withdrawals will show on the permanent record with a grade of "WE" to indicate that the basis for withdrawal and will not count toward the limit described in 4 above. In addition, the student may be required to obtain a clearance from the appropriate medical or psychological professional that states the student is well enough to return to classes with the full expectation that the student will be able to complete the semester and intended educational objectives.

Repeat Complete Medical Withdrawal:

If the student has received a complete medical withdrawal in the immediately preceding term, then an additional complete medical withdrawal request must consider the question of whether or not the student can complete appropriate educational objectives and must be reviewed on a case-by-case basis. After a repeat medical withdrawal is granted, the student may be required to obtain a clearance from an appropriate medical or psychological professional that states the student is well enough to return to classes with the full expectation that the student will be able to complete the semester and intended educational objectives.

6. Instructor Withdrawal:

An instructor may withdraw a student who has never attended a class, if done before the end of the second week of classes. Because instructors are not required to do this, students should not rely on them and should officially withdraw from classes themselves to avoid assignment of a "WU" in the course.

An instructor may also withdraw a student during the first two weeks of classes who has enrolled in a course requiring "permission of the instructor", completion of prerequisites, or concurrent enrollment in co-requisites if the student has not properly secured this permission, satisfactorily completed the prerequisites before enrolling, or enrolled in the required co-requisites.

"WE" – "Withdrawal for Extenuating Circumstances."
The symbol "WE" indicates the student withdrew for reasons, usually medical or psychological but not restricted to those, clearly beyond the student's control. Such cases will normally involve the withdrawal from all courses that semester. Withdrawals for extenuating circumstances will not count toward the limits on withdrawal. The symbol "WE" is not a grade and does not alter a student's grade point averages.

"WU" - "Unauthorized Withdrawal." The symbol "WU" indicates that an enrolled student did not complete course requirements but did not withdraw from the course. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible (letter grades "A," "B," "C," "D," "F," or an "I"). Instructors of record must report the last known date of attendance for all students who receive a "WU." A student who receives a "WU" may not complete additional work and have the "WU" changed to a letter grade. In courses that are graded "Credit/No Credit" or in cases where the student has elected "Credit/No Credit" evaluation, use of the symbol "WU" is inappropriate and "NC" must be used instead. For purposes of grade point averages a "WU" is equivalent to an "F."

II. Part Two: Course Grading Option

The faculty determines in advance which courses may be taken for "A," "B," "C," "D," or "F" grade only, "CR/NC" only, or either. When a course is designated for "CR/NC" grading only or for "A," "B," "C," "D," or "F" grading only, mention of this fact shall be incorporated in the catalog course description. Any undergraduate course may be designated for or closed to the option of "CR/NC" grading whether or not the course is a requirement for an undergraduate degree major, minor, certificate, credential, or concentration.

No course in which a final course grade of "CR" has been assigned may be used to fulfill the requirements for a master's degree, except that the final course grade of "CR" may be permitted for master's theses or projects (to a maximum of six units) when the individual department has specifically designated "CR/NC" grading for the thesis/project course in the department, and for fieldwork, practicum, research, or internship courses (also to a
maximum of six units). The option of "CR/NC" grading for graduate students in undergraduate courses is subject to specific regulations of the individual departments regarding their graduate students and regarding the authorization for this option intrinsic to the approved course. Otherwise, no limitation exists as to the number of courses taken by graduate students under this policy. An undergraduate student may elect "CR/NC" grading in no more than a total of 24 units, of which no more than twelve may be upper division units. No more than eight units per semester may be taken for "CR/NC" grades.

Exemptions from these limitations are:
1. Courses graded "CR/NC" taken at another institution,
2. Course credit earned by examination, and
3. Courses in which "CR/NC" grading is the only form of grading.

The decision to elect the "CR/NC" grading option for a course must be made by the last day to add classes. To elect "CR/NC" grading, the student must obtain the signature of the student’s major advisor and a stamp from the department/program in which the course is offered on the appropriate form. The student must then file the signed form with Enrollment Services. The decision to register for a course on a "CR/NC" basis remains in effect unless a change is requested prior to or on the last day to add classes.

The only exception to this rule is for students who declare new majors after the last day to add classes. If the newly declared major requires letter grading for the course in question and the student has elected "CR/NC" grading, then the student may request that "A," "B," "C," "D," or "F" grading be used. Such a change must be requested no later than the last day of instruction. The grading option may not be changed after the end of the semester.

III. Part Three: Final Assessments
1. Every course shall have a final assessment appropriate to the course that shall cover a significant proportion of the course.
2. Every course except Distance Learning Courses shall meet and have an educational experience at the date and time listed in the Final Examination Schedule.
3. All instructors shall administer the final assessment (e.g., an exam or presentation) or have it due (e.g., a paper or project) at a specified time that falls within the date and time listed in the Final Examination Schedule, as part or all of an educational experience.
4. The college dean must approve any exception to these requirements.

IV. Part Four: Assignment of Final Course Grades
1. The instructor of record in a course section (i.e., the faculty member officially assigned to teach that section) has the exclusive responsibility and authority to assign final course grades to all students in that section, subject only to the following exceptions:
   a. Should the instructor of record be unable or unwilling to complete this task because of death, disability, separation of employment, or prolonged absence from campus during a regular academic term, the department chair or program director, following notification of the instructor of record where appropriate and with the approval of the college dean, may appoint another instructor with the most appropriate qualifications in the discipline to complete the assignment of final course grades; or
   b. In the event of a successful grade appeal (detailed below in Part Five: Change of Final Course Grades).
2. Final course grades shall be based on at least three, and preferably more, demonstrations of competence by the student. Exceptions require the college dean’s approval.
3. In no case shall the grade on any single demonstration of competence count for more than one-third of the final course grade. Exceptions require the college dean’s approval. This provision does not abridge a faculty member’s right to assign a course grade of "F" for a single act of cheating, plagiarism, fabrication or falsification of information, or other form of academic dishonesty.
4. At the start of the course and in keeping with PS 11-07 (Course Syllabi and Standard Course Outlines), instructors shall provide to their students in writing:
   a. The grading policies and practices to be employed in the class;
   b. The rules that will apply to withdrawals; and
   c. Any other rules governing attendance, class participation, in-class use of electronics, or other conduct-related policy that may affect a student’s final grade in a course.
5. Instructors shall keep a record of students’ scores on each of the demonstrations of competence on which the final course grade is based.
6. Instructors shall provide students with an opportunity for demonstration of competence, relevant to the determination of their final course grade in the course, as early as is reasonable and no later than the midpoint of the term.
7. Students have a right to be informed promptly of their scores and to review each of their demonstrations of competence with their instructors.
8. If materials submitted for a demonstration of competence are not returned, these materials must be retained for at least two subsequent semesters by the instructor. The materials shall be accessible to the department office. In the absence of the original instructor, an instructor with appropriate qualifications may be appointed by the chair to review the demonstration of competence with the student.
9. Grades reported to Enrollment Services are considered to be official and final course grades.

V. Part Five: Change of Final Course Grades
1. Changes of final course grades or grading symbols can be made only on the basis of an error, a successful grade appeal (detailed in the separate policy statement on grade appeals), or resolution of an "Incomplete" ("I"). A final course grade or grading symbol shall not be changed on the basis of additional work submitted, except where an "I" was recorded.
2. Original final course grades are replaced only when the change is due to an error, the grade change is the result of a grade appeal, or Enrollment Services receives a late
Courses Taken First at CSULB

Grades Averaged

Repetition of Courses with Grade Forgiveness or Grades Averaged

Student Grade Record

Repetition of Courses

Courses Taken First at Another Institution

Courses Taken First at CSULB

Repetition of Courses for Credit
as repeatable for credit in the CSULB catalog up to the limits specified. Each department determines the unit limits and any other limitations for its courses that may be repeated for credit. Except for courses specified as repeatable for credit and upper-division courses in an undergraduate student's major completed more than ten years prior to graduation, an undergraduate student may not enroll in or receive unit credit for a course for which the student has already received a C, B, A, or CR, including a university-level course taken at a high school or another college or university. Courses repeated for the purpose of validating major requirements will not count either as additional unit credit or toward the calculation of grade point averages. If a student completes a course with a grade of C, B, A, or CR and wishes to register for the course again only to refresh knowledge, then the student should complete and submit the Exception to Academic Policy for Undergraduate Limit form. If approved, the student must enroll with an audit (AU). (PS 09-05)

Grade Appeals

1. Grade Appeal General Information

1.1. The primary authority of the instructor in the assignment of grades must be respected. An instructor's evaluation of a student's work and performance in that instructor's course must not be over-ridden merely because of a difference of opinion or evaluative judgment, provided it is formed in accordance with the generally accepted canons of the relevant discipline and of the academic institution where said course is offered. The university presumes that every instructor wants and tries to be non-prejudicial, objective, and consistent in the assignment of grades. This presumption, however, may be over-ridden by weight of evidence to the contrary.

1.2. Although the university presumes that grades assigned are correct, the university has established this grade appeal procedure both to protect students against academic and administrative evaluations and decisions that are prejudicial, capricious, or arbitrary, and to preserve the authority of instructors to evaluate student work in a non-prejudicial, objective, and consistent way. This procedure, available equally to undergraduate and graduate students, also preserves the rights of instructors to appeal grade appeals committee findings as outlined below. The policy in its entirety constitutes the only grade appeal procedure at California State University, Long Beach.

1.3. The burden of proof rests upon the student submitting the appeal.

1.4. Students may appeal only final grades. Students who believe that individual exams and/or assignments demonstrate evidence of prejudicial, capricious, or arbitrary grading and that those grades had direct bearing on the final grade should include them in the grade appeal file as supporting documentation.

1.5. If a grade appeals committee decides to change a grade, the committee need not grant the student's suggested grade but should assign a grade that is appropriate to the work submitted. The new grade shall not be lower than the original grade.

1.6. Once a student has filed a formal grade appeal, nobody may change a grade until neither the student nor the instructor continues the process or the third and final level has been concluded.

Timelines for filing an appeal and subsequent decisions specified in this policy statement refer to instructional days during the regular fall and spring semesters. In the case of courses that do not follow the traditional semester pattern (such as short-term courses given during a regular semester or programs that require year-round enrollment), students must initiate an appeal within 40 regular semester instructional days of the termination of the course.

1.7. All grade appeal information, whether written or oral, is confidential.

1.8. The student may seek the assistance of an advisor in the preparation of the appeal file. If department and/or college committees permit oral arguments, the advisor may accompany the student to the departmental and/or college hearing and be privy to all confidential information relevant to the case.

1.9. The original file, with all documentation, recommendations, final decisions, and all other materials (including a copy of the grade change, if relevant) shall be kept by the college involved for five years. One complete duplicate set of all documentation shall be kept in the office of the Academic Senate for five years. All other parties must destroy all duplicate materials within thirty instructional days of the final decision.

1.10. Each college dean and the chair of the University Grade Appeals Committee shall provide a written report at the end of each academic year to the president and the Academic Senate on the number of cases heard and the disposition of each case. College deans also shall forward their reports to the chair of the University Grade Appeals Committee.

1.11. If the student's appeal is compounded (or accompanied) by an allegation of unlawful discrimination as defined by federal and state laws, the student has the right to access the university's internal unlawful discrimination process and the processes available through the U.S. Department of Education Office of Civil Rights and the state of California Fair Employment and Housing Commission. However, grades may be changed only through the grade appeal process.

2. Grade Appeals Committees

2.1. Each department and extra-departmental program (hereafter referred to as program) shall form a department/program grade appeals committee. If department/program faculty members are unable to serve in sufficient number to form a grade appeals committee, the chair of the council of the relevant college shall appoint the required number of grade appeals committee members from the ranks of college faculty. A department/program grade appeals committee shall include at least one student member appointed by the Associated Students, Incorporated.

2.2. Each college and the university shall have a standing grade appeals committee, each of which shall include at least one student member appointed by the Associated Students, Incorporated.

2.3. For courses located in a college but not in a department (college-based courses), a first-level grade appeals committee must be formed. The council of the relevant
college shall appoint the first-level grade appeals committee from among the faculty members of that college. If review beyond the first-level grade appeals committee is necessary, the appeal next shall go to the regular college-level grade appeals committee.

2.4. For courses not located in a college or department/program (university-based courses), the Curriculum and Educational Policies Council must create a first- and second-level grade appeals committee by appointing each committee from among its members.

2.5. For courses cross-listed between or among different units, the unit with the prefix under which the student took the course shall handle the grade appeal.

2.6. Committee members, at any level, shall not participate in any way in an appeal of a grade decision in which they have been involved personally. Such participation includes, but is not limited to, assignment of the grade in question, involvement in the class in question, or grading any student work for the class in question.

2.7. No committee member may serve on a committee at more than one level of a single appeal.

2.8. The committee chair at the department/program level and at the college level shall inform all parties of the composition of the grade appeals committee and of the right to peremptory challenge. The student and the instructor involved in any given appeal shall each have one (1) peremptory challenge to remove one (1) committee member from service for that particular appeal. Departments/programs and colleges must replace any removed members within a timely fashion. If peremptory strikes of members are exercised by either party, the committee shall have an additional ten (10) instructional days to review the file and render its decision.

2.9. A grade appeals committee deliberating an appeal during any level of the process shall consider all information submitted and may, if necessary, obtain clarification in writing from the student, the instructor, and/or committees at other levels of the process. The committee may request information to help it understand the basis for assignment of the grade. If either party does not supply appropriate grade appeal information within a reasonable time (see 2.11.) when requested by a committee, then that committee may base its decision on the corresponding information supplied by the other party.

2.10. Committees shall consider only information available to all parties. All parties to an appeal shall be notified by the committee chair in writing of all responses and deadlines at all points of the appeal process and shall have full opportunity to comment in writing.

2.11. Distribution of materials submitted in an appeal shall allow reasonable time for response by the involved parties before committees render their decision. "Reasonable time" for responses shall generally be understood to be ten (10) instructional days from receipt of a response.

2.12. After making its determination, the committee hearing the appeal shall prepare a written statement of its decision, including an explanation of its reasoning and a response to the specific issues upon which the appeal is based. The chair of the committee shall place a copy of the decision statement in the appeal file and shall send copies of the statement to all parties involved.

2.13. Chairs of department/program and college grade appeal committees shall provide a written report to their dean at the end of each semester detailing the number and disposition of cases heard.

3. Preliminary Informal Phase of the Grade Appeals Process: Initiation of Grade Appeals

3.1. Students who believe they have received a final course grade that reflects prejudicial, capricious, or arbitrary grading of their academic performance must make this belief known to the instructor(s), either orally or in writing, before they begin the formal appeal process. In accordance with the Policy on Final Course Grades, Grading Procedures, and Final Assessments, students have a right to be informed of their scores and to review each of their demonstrations of competence with their instructors. If materials submitted for a demonstration of competence are not returned to the student, such materials will be retained for at least two (2) subsequent semesters by the instructor. The materials shall be accessible to the department office. In the absence of the original instructor, an instructor with appropriate qualifications may be appointed by the Chair to review the demonstration of competence with the student.

3.2. In the event an instructor is not available to participate, the department/program chair in the discipline/program may appoint another instructor whose areas of expertise most closely approximates that of the instructor of record to represent the interests of the latter.

3.3. If the student cannot resolve the problem after informal consultation with the instructor and intends to continue the process, the next step is for the student to prepare a grade appeal file.

3.3.1. The file must include:
1. a written statement describing the reasons for the appeal and the recommendation for a new grade;
2. a Grade Appeal Form obtained from the appropriate college office and fully completed; and
3. supporting documents, such as the class syllabus, exams, papers, assignments or other corroborating documents, that show evidence of the alleged improper grading.

3.3.2. The written statement describing the reasons for the appeal shall be addressed to the department/program chair of the discipline in which the course resides. For the purposes of this policy, a program director or coordinator is considered a program chair.

3.3.3. The grade appeal file must be delivered to the department/program chair within the first 40 instructional days of the regular semester immediately following the semester or special session in which the course was completed.

3.4. After receiving the student's grade appeal file (see 3.3.1., above), the department/program chair will consult with both the student and the instructor(s) involved to attempt a resolution to the grade appeal.
4.3. If the appeal is granted by the committee, the committee shall perform all functions of the chair in the appeals process.

4.4. If the department/program grade appeals committee does not request further review of the appeal, the appeal process is over.

4.3.1. If both the student and instructor accept the committee's decision, the instructor does not either file a grade change or file an appeal of the committee's finding, the grade appeals committee shall sign the grade change form in the place of the instructor and forward it to the department/program chair. If the department/program chair does not sign the form within ten (10) instructional days of notification, the chair of the department/program grade appeals committee will sign in lieu of the department/program chair and then the college dean will authorize the grade change.

4.3.2. If the student accepts the decision of the committee, the instructor does not either file a grade change or file an appeal of the committee's finding, the grade appeals committee shall sign the grade change form in the place of the instructor and forward it to the department/program chair. If the department/program chair does not sign the form within ten (10) instructional days of notification, the chair of the department/program grade appeals committee will sign in lieu of the department/program chair and then the college dean will authorize the grade change.

4.3.3. If, within ten (10) instructional days, either the student or the student files in writing an appeal of the department/program committee's finding, the college grade appeals committee that the grade appeal file has been received and is ready for review.

4.4.1. If, within ten (10) instructional days, the student does not request further review of the appeal, the grade appeal process is terminated.

4.4.2. If, within ten (10) instructional days, the student communicates in writing her/his wish to continue the appeal process, the committee chair shall, within ten (10) instructional days, forward the file (including the committee's decision and rationale) to the college grade appeals committee.

5. Second Level of the Formal Appeals Process: Appeal to the College Grade Appeals Committee

5.1. An appeal of a department/program grade appeals committee decision, by either the instructor or the student, begins with a written letter of appeal to have that decision reviewed. This letter of appeal should be directed to the appropriate college grade appeal committee (also called college committee in this document) by way of the department/program chair. The department/program chair must then inform within five (5) instructional days the instructor, student, and college dean in writing that an appeal has been filed and the dean must inform within five (5) instructional days the appropriate college grade appeals committee in writing that an appeal has been lodged. The chair of the department/program grade appeals committee must forward within five (5) instructional days the appeal file, including the committee's decision and rationale, to the college dean who must immediately inform the college grade appeals committee that the grade appeal file has been received and is ready for review.

5.2. The committee chair at the college level shall inform all parties of the composition of the grade appeals committee and of the right to peremptory challenge. The college grade appeals committee shall normally render its review decision within twenty (20) instructional days of receipt of the grade appeal file. However, if peremptory strikes of members are exercised by either party, the committee shall have an additional ten (10) instructional days to review the file and render its decision.
5.3. The college grade appeals committee shall review the grade appeal file, the department/program grade appeals committee’s decision and rationale, and any rebuttal to that decision and rationale provided by the student or instructor in the light of paragraphs 1.1. through 4.4., above. During its review it may consider and act upon matters of both procedure and substance.

5.4. As a result of its review, the college grade appeals committee may confirm the decision of the department committee or it may recommend re-consideration.

5.4.1. If the college grade appeals committee confirms the decision of the department/program grade appeals committee, and if neither the instructor nor the student requests further review, then the grade appeal process ends. The chair of the college committee must inform in writing all parties, including the department/program chair and the department/program grade appeals committee. If a grade change has been recommended by the department/program committee but held in abeyance pending the appeal, the department/program chair shall, within ten (10) instructional days, authorize the grade change by filing the appropriate form. In the event that the department/program chair does not effect the change within ten (10) instructional days of notification, the chair of the college grade appeal committee will sign in lieu of the instructor or the department/program chair. The college dean will then authorize the grade change.

5.4.2. If either the student or the instructor communicates in writing her/his intention to continue the appeal process, the college committee chair shall, within ten (10) instructional days, forward the file (including the college committee’s decision and rationale) to the University Grade Appeals Committee.

5.4.3. If the college grade appeals committee recommends re-consideration, it shall put in writing its rationale (which may involve matters of procedure or substance) and any recommendations it may have (which may include recommendations of substance or procedure, new constitution of the department/program committee, or other recommendations toward realizing a fair evaluation of the matters at issue). The chair of the college grade appeal committee shall return the grade appeal file, including the rationale and recommendations of the college committee, to the department/program grade appeals committee for re-consideration and supply copies of the recommendations to all other parties, including the department/program chair.

5.5. When a grade appeal decision has been returned for re-consideration, the department/program grade appeals committee shall review the rationale and recommendations of the college grade appeals committee. It shall undertake to remedy procedural faults identified by the college committee. It shall consider anew the substance of the grade appeal, with due attention to whatever recommendations have been advanced by the college committee. The department/program grade appeals committee shall render a new decision on the appeal, which may be a reiteration of its original decision or may be a different decision (which may, but need not be, in agreement with the college committee’s recommendations).

5.5.1. The department/program grade appeals committee shall render its reconsideration within twenty (20) instructional days of receipt of the grade appeal file. If peremptory strikes of members are exercised by either party, the committee shall have an additional ten (10) instructional days to review the file and render its decision.

5.5.2. Upon reaching its decision, the department/program grade appeals committee shall report, in writing, its response to all procedural faults identified by the college committee and shall again put in writing its rationale for its decision on the substance of the grade appeal. The chair of the department/program grade appeals committee shall forward these reports with the grade appeals file to the college grade appeals committee and supply copies to all other parties, including the department/program chair.

5.6. The college grade appeals committee shall review the re-considered decision of the department/program committee. It may seek clarification from the department/program committee. It shall either confirm or disagree with the decision of the department/program committee. The chair of the college grade appeals committee must inform all parties in writing of its decision.

5.6.1. If within ten (10) instructional days following notification of the college committee’s decision, the student or instructor communicates in writing her/his wish to continue the appeal process, the committee chair shall forward the file (including the committee’s decision and rationale) to the University Grade Appeals Committee.

5.6.2. If a grade change is recommended by the committee and the change is not appealed by either the instructor or the student (in compliance with 4.5.1., above), the college grade appeals committee chair shall, within ten (10) instructional days of the college committee’s action, inform the college dean, in writing, of its decision and the college dean will authorize the grade change as determined by the committee.

6. Third Level of the Appeals Process: Appeal to the University Grade Appeals Committee

6.1. The University Grade Appeals Committee shall function as the third and final level of the grade appeals process. The University Grade Appeals Committee may communicate with the student, the instructor, and the department/program and college grade appeals committees as needed.

6.2. The University Grade Appeals Committee shall normally render its decision within twenty (20) instructional days of receipt of the grade appeal file.

6.3. The University Grade Appeals Committee shall review the grade appeals file, the lower level committees’ decisions and rationales, and any rebuttals to those decisions and rationales provided by the student or
instructor. It may consider both matters of procedure and substance. The committee may seek further clarification from either lower level committee or the student or instructor as needed. The University Grade Appeals Committee shall either confirm or disagree with the decision of the college grade appeals committee.

6.3.1. If the University Grade Appeals Committee determines that the grade appeal guidelines have not been followed, it may send the appeal back to the department/program or college grade appeals committee for reconsideration.

6.3.2. In the event that a grade change is authorized by the University Grade Appeals Committee, the chair of the University Grade Appeals Committee shall ensure that the appropriate change-of-grade form is properly signed by the provost and filed with Enrollment Services.

6.3.3. The chair of the University Grade Appeals Committee shall inform all parties to the grade appeal, in writing, of the committee’s decision.

6.3.4. The rendering of the University Grade Appeals Committee’s decision, notification of all parties of the decision, and effecting of a grade change where authorized by the committee, completes the appeal process.

Probation and Disqualification

Academic Probation

Undergraduate students are placed on academic probation if at any time their cumulative grade-point average in all college work attempted or their cumulative GPA at California State University, Long Beach falls below 2.0 (C). Graduate students are placed on academic probation when their cumulative grade-point average or grade-point average on all courses applicable to the degree falls below 3.0. Other post-baccalaureate students are placed on academic probation when their cumulative grade-point average falls below 2.5.

Undergraduate students will be removed from academic probation when their cumulative grade-point average in all college work attempted and their cumulative grade-point average at California State University, Long Beach is 2.0 (C) or higher. Graduate students will be removed from academic probation when their overall grade-point average and grade-point average on all courses applicable to the degree are 3.0 (B) or higher.

Other post-baccalaureate students will be removed from academic probation when their overall grade-point average is 2.5 or higher.

Administrative Academic Probation

An undergraduate or graduate student may be placed on administrative-academic probation by action of appropriate campus officials for any of the following reasons:

1. Withdrawal from all or a substantial portion of a program of studies in two successive semesters or in any three semesters, unless the withdrawals were directly associated with a chronic or recurring medical condition or its treatment;
2. Repeated failure to progress toward the stated degree objective or other program objective (when such failure appears to be due to circumstances within the control of the student);
3. Failure to comply, after due notice, with an academic requirement or regulation which is routine for all students or a defined group of students (e.g., failure to take placement tests, failure to complete a required practicum).

Academic Disqualification

Students who remain on academic probation for more than two consecutive semesters are subject to academic disqualification.

Undergraduate students on academic probation are subject to academic disqualification when:

1. As freshmen (fewer than 30 semester-hours of college work completed), their grade-point average falls below 1.5 on all units attempted or on all units attempted at California State University, Long Beach;
2. As sophomores (fewer than 59 semester-hours of college work completed), their grade-point average falls below 1.7 on all units attempted or on all units attempted at California State University, Long Beach;
3. As juniors (60 to 89 semester-hours of college work completed), their grade-point average falls below 1.85 on all units attempted or on all units attempted at California State University, Long Beach;
4. As seniors (90 or more semester-hours of college work completed), their grade-point average falls below 1.95 on all units attempted or on all units attempted at California State University, Long Beach;

In addition to the above disqualification standards applicable to students on probation, individuals not on probation may be disqualified when both of the following circumstances exist:

1. At the end of any semester, if the student has a cumulative grade-point average below 1.0; and
2. The cumulative grade-point average is so low that in view of the student's overall educational record it seems unlikely that the deficiency will be removed within a reasonable period.

Graduate and post-baccalaureate students are subject to disqualification if while on probation they fail to earn grades of sufficient quality to remove themselves from probationary status. Disqualification will bar such students from any further enrollment at CSULB.

Disqualification From Impacted Programs

Students who fail to maintain an overall GPA of 2.0 will be immediately removed from an impacted major and placed in the undeclared category or in a general category appropriate to the discipline. To be reinstated as majors in the impacted program, they must reapply at the time when change-of-major requests are normally accepted.

Administrative Academic Disqualification

A student who has been placed on administrative-academic probation may be disqualified from further attendance if:

1. The conditions for removal of administrative-academic probation are not met within the period
specified;
2. The student becomes subject to academic probation while on administrative-academic probation;
3. The student becomes subject to administrative-academic probation for the same or similar reason for which they have been placed on administrative-academic probation previously, although not currently in such status.

In addition, an appropriate campus administrator may disqualify a student who at any time during enrollment has demonstrated behavior so contrary to the standards of the profession for which the student is preparing as to render her/him unfit for the profession. In such cases, disqualification will occur immediately upon notice to the student, which shall include an explanation of the basis for the action, and the campus may require the student to discontinue enrollment as of the date of the notification.

For students who subsequently become eligible for reinstatement (see below), disqualification under the provisions of the preceding paragraphs constitutes a break in "continuous enrollment" within a degree major program; therefore, students disqualified may not elect any regulations in effect prior to disqualification.

Reinstatement

In order to be considered for reinstatement to CSULB, a disqualified student must demonstrate progress toward the degree. This demonstration can be achieved by:
1. Completing courses through College of Continuing and Professional Education at CSULB; or
2. Completing classes at other regionally accredited academic institutions.

All classes considered for reinstatement in the student's petition must be applicable for degree credit and toward the student's General Education or major requirements.

Progress toward meeting the GPA requirement can be demonstrated by reducing the deficiency in grade-point average by one-half at CSULB or by making equivalent grades in courses taken at other regionally accredited academic institutions. Grades earned at other regionally accredited academic institutions will not reduce the deficiency in the CSULB grade-point deficiency. Grades earned elsewhere are only indicators of academic ability.

After reducing the deficiency in the CSULB grade-point average and/or demonstrating academic ability at other regionally accredited academic institutions, the student may petition the Academic Appeals Committee for reinstatement. The petition must present evidence that the student is likely to achieve a satisfactory grade-point average and to complete requirements for the degree in accordance with the Timely Graduation Policy. The Academic Appeals Committee will only consider the petition for reinstatement of students who have remained outside of the university for at least one regular (fall or spring) semester after their dismissal.

Petition forms are available through Enrollment Services and must be filed by November 1 for the spring semester or June 1 for the fall semester. Petitions received after that date will be returned to the student to be submitted for consideration for a future semester. (PS 09-06)

Disqualified undergraduate students taking courses through College of Continuing and Professional Education will be eligible to enroll in a limited amount of courses. Fall and Spring Semesters: 6 units or two courses, as long as enrollment in these two courses does not exceed 7 units. Summer Session: 6 units or two courses, as long as enrollment in these two courses does not exceed 7 units. Winter Session: 4 units.

The University Center for Undergraduate Advising offers Reinstatement Workshops for Undergraduate Students who have been academically disqualified. The workshops help students to learn how to become reinstated to the university. For more information or to sign up for the workshop call (562) 985-7847 or visit the University Center for Undergraduate Advising, located in the Horn Center Room 103.

Academic Appeal of Disqualification

Undergraduate students who have made academic progress and believe that there were extenuating circumstances that led to their academic disqualification may file an appeal asking to extend their academic probation for an additional semester. Students must submit their appeals immediately following notification by Enrollment Services that they have been disqualified. The Appeal of Disqualification information and form are available through the University Center for Undergraduate Advising.

Academic Renewal

An undergraduate student may petition to have all the grades and units received during one or two semesters (or up to three quarter terms) of undergraduate work disregarded in the computation of grade point averages and academic standing. The work so disregarded may have been taken at any collegiate-level institution but no work taken during the disregarded terms, even if satisfactory, may apply toward baccalaureate requirements. All grades and units attempted will remain on record. At least five calendar years must have elapsed since the work in question was completed and the student must have subsequently completed 15 semester units with a 3.0 GPA (or 30 semester units with a 2.5 or 45 semester units with a 2.0) at CSULB before filing a request for disregarding the coursework. At the time of filing the petition the student must have either already met all requirements for graduation other than one or more grade point averages or all other remaining requirements are in progress during the semester of filing. No student may use academic renewal to raise any grade point average above what is required for graduation.

Students shall submit petitions for academic renewal to Enrollment Services. Final determination shall be made by the provost (or designee) in consultation with the Academic Appeals Committee. The petitioning student must certify that the work to be disregarded was substandard and not reflective of her or his current scholastic ability or present level of academic performance. This certification must include a statement explaining the extenuating circumstances causing the substandard performance during the terms in question. The student must also provide evidence that it would be necessary to complete additional units or semesters in order to qualify for the baccalaureate degree if the request were not approved. (PS 09-08)

Academic Appeals

Students may petition for exception to academic policy.
Edward, exception requests involve issues such as record errors, General Education substitutions or waivers, reinstatement, exceptions to the repeat/delete policy, and academic renewal.

Students can obtain the "Petition for Exception to Academic Policy" forms from the Office of Enrollment Services, Brotman Hall Room 101, or the University Center for Undergraduate Advising (UCUA), located in Horn Center, Room 103. This written appeal will be directed to the Academic Appeals Committee. Petitions must be filed with the Office of Enrollment Services, BH-101.

Cancellation of Registration or Withdrawal From CSULB

Students who find it necessary to cancel their registration or to withdraw from all classes after enrolling for any academic term are required to follow the university’s official withdrawal procedures. Failure to follow formal university procedures may result in an obligation to pay fees as well as the assignment of failing grades in all courses and the need to apply for readmission before being permitted to enroll in another academic term. Information on canceling registration and withdrawal procedures is available online at the Enrollment Services website.

Students who receive financial aid funds must consult with the Financial Aid Office prior to withdrawing from the university regarding any required return or repayment of grant or loan assistance received for that academic term or payment period. Students who have received financial aid and withdraw from the institution during the academic term or payment period may need to return or repay some or all of the funds received, which may result in a debt owed to the institution.

Refund of Student Fees

Regulations governing the refund of student fees in the California State University system are prescribed by the CSU Board of Trustees; see California Code of Regulations, Title 5, Education, Section 41802.

Educational Leave

Any registered student, undergraduate or graduate, in good academic standing may request an Educational Leave. Students requesting an Educational Leave must complete an Educational Leave Form, in advance, including an explanation of their reasons for seeking the leave and a statement of when they intend to resume academic work. The completed form should be submitted to the Office of Enrollment Services, Brotman Hall 101.

The minimum initial leave will be one full semester; the maximum will be one calendar year. A student may submit, in advance, a new educational leave request form for an extension of leave. Under no circumstances will the total number of approved educational leaves exceed two, nor will the duration of approved educational leaves extend beyond two calendar years.

Students returning from an approved educational leave are not required to submit an application for readmission to the university. Students returning from an absence for which an educational leave was appropriate but not approved in advance must reapply for admission and pay the reapplication fee.

Graduate students who plan to enroll for credit at another institution of higher education during the leave period must obtain prior approval for the transfer of course credit to the student’s program from the department graduate advisor, department chair, and the College Dean or designee.

The period of an educational leave is counted in the calculation of elapsed time under the regulations governing the maximum period for completion of degree and remediation requirements. (See Baccalaureate and Graduate sections of this catalog)

For the period of an educational leave the student’s rights under the “Election of Regulations” rule are preserved, maintaining the right of the student to elect regulations as if he or she had maintained continuous attendance.

An educational leave presupposes no expenditure of University resources or faculty and staff time on behalf of the student during the period of the leave. In addition, no computer facilities, no library privileges, and no student services are available to a student on educational leave.

Credit Hour

As of July 1, 2011 federal law (Title 34, Code of Federal Regulations, sections 600.2 and 600.4) requires all accredited institutions to comply with the federal definition of the credit hour. For all CSU degree programs and courses bearing academic credit, the "credit hour" is defined as "the amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or

2. At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours."

A credit hour is assumed to be a 50-minute period. In courses in which "seat time" does not apply, a credit hour may be measured by an equivalent amount of work, as demonstrated by student achievement.
BACCALAUREATE DEGREE INFORMATION

Student Success and Graduation

CSULB’s core academic purpose is to graduate students with highly valued degrees. Graduation rates for CSULB students have increased dramatically in recent years and the length of time it takes students to complete degrees has decreased. The availability of needed courses and support by academic advisors and learning communities greatly improved graduation rates. These improvements were key to CSULB’s recognition as one of “America’s Best Colleges and Universities” (U.S. News and World Report) and as a “Best Value College” and “Best in the West” (The Princeton Review).

Frequently Asked Questions

Successful students know the answers to these frequently asked questions. Please read them carefully. Knowing these answers can help you avoid pitfalls during your first semesters on campus. For further information, contact the University Center for Undergraduate Advising at (562) 985-4837.

1. What courses do I need to take to graduate?
   Use the Degree Planner online tool in MyCSULB to map your entire academic path to graduation. Each time you enter the Degree Planner, it determines what degree requirements you have met and what is still remaining. The Planner then provides a recommended plan promoting timely graduation. If you have questions about your recommended plan, contact your major advisor, college advising center, or the University Center for Undergraduate Advising if you are undeclared.

2. How can I tell what requirements I still need to meet before I graduate?
   Use MyCSULB to check your Academic Requirements Report. Icons next to each requirement reflect the status of that requirement. You can bring a printout of the Academic Requirements Report to your college advising center or major advisor or the University Center for Undergraduate Advising for assistance. Also, check your To Do list for any outstanding transcripts needed from other institutions.

3. Can my General Education (GE) courses be used for both GE and for my major ("double counted")?
   Under the 2012 GE pattern, up to 13 units may double count for the major and GE. Students following other GE patterns should review their Academic Requirements Report with their major advisor or see an advisor in the University Center for Undergraduate Advising if they have questions (Horn Center, Room 103, 562-985-4837).

4. How many units will transfer from a California Community College to CSULB?
   All bachelor’s level courses transfer, but only 70 units of transferable course work will apply to your bachelor’s degree. Additional transferable course work will receive subject credit only.

5. I transferred from a California Community College. Do I have to take any General Education courses?
   If you have received full GE certification, you are only required to complete an additional nine (9) units of upper-division GE Capstone courses, including Global Issues and Human Diversity. You may also need to fulfill the U.S. History, Constitution, and American Ideals requirement. If you have not been certified as having met the transfer pattern, you must satisfy CSULB’s GE requirements.

6. What does General Education (GE) Certification mean?
   There are three GE certification processes. Two may be completed at the California Community College (CCC). They are either (1) the California State University (CSU) Transfer Pattern or (2) the Intersegmental General Education Transfer Curriculum (IGETC). The third certification process may be completed at another CSU. In all cases, GE certification means that you have completed your lower-division GE at a CCC or at another CSU.

7. Does having an AA degree from a California Community College mean I am GE Certified?
   The minimum requirements for general AA degrees do not include the lower-division GE pattern required by CSULB. The completion of both an AA degree along with the specified CSU GE or IGETC pattern provide the appropriate GE courses for possible GE certification. In addition, the Associate Degrees for Transfer (AA-T, AS-T) do include GE Certification as part of the degree program. After transfer, CSULB also requires an additional 9 units of upper-division GE Capstone courses.

8. What is partial General Education (GE) Certification?
   Partial Certification means that transfer students have completed subject and unit requirements in one or more GE categories, but not all.

Baccalaureate Degrees

CSULB offers 85 baccalaureate majors (see a list of degree programs and admission requirements at the beginning of this Catalog). Baccalaureate degrees are constructed of three interrelated areas: (1) the breadth component, called the General Education (GE) Program, which is the basis for the baccalaureate degree with courses that offer training in general skills, methodologies, and habits of thought; (2) the depth component, or major, which establishes an understanding of the breadth of a body of knowledge, competence in the fundamental skills and methodologies of the discipline, and understanding and skill at an appropriate depth in one or more facets of the discipline; and (3) the elective component that provides the possibility for personal exploration, enhancement, and development to complement the rest of the degree program (and might include a minor and/or a certificate program).

Requirements for the Baccalaureate Degree

1. Completion of a minimum of 120 units for the Bachelor of Arts and the Bachelor of Science. Completion of the minimum number of units which could range from 120 to 132 required by the major program for the Bachelor of Fine Arts or Bachelor of Music degrees. See the
description of the requirements for each major for the specific number of units required. There are restrictions (below) on how many units in certain categories may be counted toward the minimum unit requirement.

2. Completion of at least 40 upper-division units (courses numbered 300-499). No course taken at any community college may count toward fulfillment of these 40 units.

3. Completion of at least 30 units in residence at CSULB of which at least 24 must be upper-division and at least 12 must be in the major. Units earned in Extended Education or Open University cannot be counted toward fulfillment of the residence requirement.

4. Completion of the General Education program, described below, including at least 9 units in upper-division capstone courses completed at CSULB.

5. Completion of the specific course and unit requirements for the academic major, as shown in the alphabetic listing for the major department. If the requirements are changed during students’ continuous attendance at CSULB, they have the right to meet either the requirements in effect when they entered the major or the requirements in effect at the time they graduate. All upper-division courses required for a major must be completed within the ten-year period preceding award of the baccalaureate degree. Courses completed prior to this ten-year period can be revalidated by such demonstrations of competence or knowledge of the subject as may be prescribed by the department offering the course.

The on-line Catalog Table of Contents has a link at the top to "Road Maps" that shows a suggested sequence of courses to enable students to complete all degree requirements in a timely fashion. Since individual circumstances can vary, students should consult their major advisors for assistance.

6. Satisfactory fulfillment of the Graduation Writing Assessment Requirement (GWAR) (See a description of the requirement at the end of this section.)

7. The grade point average standards of Section 40402 of Title 5 of the California Administrative Code requires undergraduate students, at graduation, to have satisfied the requirement at the end of this section.

The components of an undergraduate education include the major, in which the student acquires depth of knowledge, electives that allow a student to explore personal or career-related interests, and General Education (GE). General Education allows students to develop competency in academic skills that are essential to all academic majors. In addition, General Education offers students broad knowledge beyond the focus of the major, as well as exposure to the rich diversity of the human experience.

The General Education program at CSULB sequentially introduces students to the mastery of academic skills that will provide graduates with an understanding of self, the

Restrictions on Units That May Be Counted Toward the Minimum Required for the Baccalaureate

Activity Courses

Activity courses provide practice in such areas as music, dance, physical education and Student Recreation and Leadership (SRL). Except as required by a student's major, students may apply to the degree no more than eight units each of activity course credit in music, dance, theatre arts, or kinesiology and no more than four units of activity course credit in SRL, up to a total of no more than 20 units in all areas.

Transfer Courses

No more than 70 units of courses from a Community College may be counted toward the minimum unit requirement for the baccalaureate. (For more detail, see the section on Transfer Credit in the Academic Information section of this catalog.)

Courses Taken by Non-Matriculated Students in Any Term

No more than 24 units total taken during any term while in non-matriculated status may be used to fulfill any undergraduate degree requirements. All students who have not been formally admitted to CSULB and who take courses here are non-matriculated students. Courses taken by incoming freshmen during the summer prior to their first fall are considered non-matriculated units. Students looking to transfer units to a graduate program may take up to 9 units.

Open University

Open University — Through Open University, students who are NOT matriculated in CSULB may take regular university classes during spring or fall semesters for academic credit on a "space available" basis with permission of the department chair and the course instructor. Open University enrollment does NOT constitute admission to CSULB. For more information call the College of Continuing and Professional Education (CCPE) at (562) 985-5561.

Self Support Courses

There is no limit on CCPE Self Support course credit, including Winter, May and Summer Session, applicable to the degree if taken while in matriculated status in the degree program.

General Education

The Significance of General Education

The components of an undergraduate education include the major, in which the student acquires depth of knowledge, electives that allow a student to explore personal or career-related interests, and General Education (GE). General Education allows students to develop competency in academic skills that are essential to all academic majors. In addition, General Education offers students broad knowledge beyond the focus of the major, as well as exposure to the rich diversity of the human experience.

The General Education program at CSULB sequentially introduces students to the mastery of academic skills that will provide graduates with an understanding of self, the
physical world, the development and functioning of human society, and its cultural and artistic endeavors, as well as an understanding of the methodologies, value systems, and thought processes employed in human inquiries. The program involves three stages: Foundation, Explorations, and Capstone. Students who begin their college careers at CSULB will complete all three stages, while transfer students who enter the university with a Full General Education Certification will be expected to complete the final (Capstone) stage only, and the Human Diversity and Global Issues requirements if not met through transfer coursework.

General Education Breadth requirements are specified pursuant to Title 5, California Code of Regulations, Sections 40402.1, 40403, 40405, 40405.1, 40405.2, 40405.4, and 40508, and Sections 1 and 2 of Chapter III of the Standing Orders of the Board of Trustees of the California State University, and Executive Order 1065. CSU General Education Breadth requirements have been designated to complement the major program and electives completed by each baccalaureate candidate to assure that graduates have made noteworthy progress toward becoming truly educated persons. These requirements are designed to provide the knowledge, skills, experiences, and perspectives that will enable CSU students to expand their capacities to take part in a wide range of human interests and activities; to confront personal, moral, and social problems that are an inevitable part of human life; and to cultivate both the requisite skills and enthusiasm for lifelong learning.

The Essential GE Student Learning Outcomes

Upon completion of the GE requirements, CSU students should show mastery in each of the following:

Knowledge of Human Cultures and the Physical and Natural World

Achieved through study in the Sciences and
Mathematics, Social Sciences, Humanities, Histories,
Languages, and the Arts

Intellectual and Practical Skills, including:

Written Communication
Oral Communication
Critical Thinking
Quantitative Reasoning
Information Literacy and Technology Literacy
Teamwork
Creativity, Inquiry, and Discovery

Personal and Civic Responsibility, including:

Global Competencies
Intercultural Competence (cultural values/traditions-U.S.)
Ethical Reasoning and Social Responsibility
Self-Understanding
Foundation and Skills for Lifelong Learning

Integrative Learning, including:

Synthesis and Interdisciplinary Methods of Inquiry

General Education Requirements (48 units*)

The General Education curriculum is organized as three sequential phases. The first is the Foundation, a group of courses designed to provide fundamental learning skills.

The second is Explorations, courses distributed across the curriculum that are intended to provide an opportunity to explore the various way of acquiring and examining knowledge while continuing to develop learning skills. The third is the Capstone, designed to integrate knowledge and skills developed earlier in the curriculum. (*Students majoring in departments within the College of Engineering are required to take only 42-45 units of GE).

All students must complete the distribution pattern described below.

English Language Communication and Critical Thinking (Category A, 9 units): Includes three Foundation 3 unit Courses: Written Communication in English (A1), Oral Communication in English (A2), and Critical Thinking (A3).

Science, Technology & Mathematics/Quantitative Reasoning (Category B, 9 units): Includes 3 units in life sciences (B1a) and 3 units in physical sciences (B1b) with one lab course associated with either the life sciences or the physical sciences. This requirement also includes the fourth Foundation 3 unit course in Mathematics/Quantitative Reasoning (B2). Social Sciences & Citizenship (Category D, 9 units): Includes 3 units in US History (D1a) and 3 units covering the US Constitution, including CA State & local government (D1b). This requirement also includes 3 additional units in social sciences & citizenship (D2).

Lifelong Learning and Self-Development (Category E, 3 units): Includes 3 unit course that deals with the human being as a psychological, physiological, and social organism.

Capstone (Category F, 9 units): Includes at least nine (9) units chosen from approved Capstone courses (three courses). Students entering Fall 2016 or later must fulfill 3 units (1 course) of their 9 units of capstone (three courses) by completing an approved Writing Intensive Capstone course.

Additional GE Requirements: The 48 units above must include courses that also fulfill the following requirements:

Global Issues (GI, 3 units): Requires a course designed to introduce students to cultures and places outside of the US.

Human Diversity (HD, 3 units): Requires a course designed to introduce students to diverse populations and cultures within the US.

General Education Policies

Only courses on the General Education Master Course List at the time the student takes the course shall count for General Education.

Because the program is intended to provide breadth, a minimum of thirty-five (35) units of the student's General Education courses must be outside the student's major department. "Courses in the major department" include all courses housed in the department offering the major, regardless of prefix. (For example, courses in French and in Italian are in the same department.)

A cross-categorized course may be counted (at the student's option) in any one of the approved categories A-F.
but not in more than one.

Where appropriate exams exist, Foundation and Explorations requirements may be met by external examinations, such as Advanced Placement or International Baccalaureate exams.

Students are expected to complete the Capstone requirement at CSULB. An exception will be made for students who transfer from another CSU campus after completing some of the upper-division GE requirement at that campus. To be accepted toward the Capstone requirement at CSULB, the transfer course must be approved for upper division general education credit at the campus offering the course. Other courses may be used, on an individual basis, to meet the requirement if they are approved for General Education at the campus offering the course and if the purpose of the course meets the criteria for a CSULB Capstone course.

Students who transfer from baccalaureate institutions other than the CSU after completing upper-division General Education courses may petition to have one or more such courses accepted toward the Capstone requirement. Such petitions will be evaluated on the basis of the criteria above.

GE Requirements for Returning and Transfer Students

Students who have not maintained continuous attendance status shall be subject to the General Education requirements in effect at the time of their reentry to the university, with the following exceptions.

Previous CSULB students who were under earlier General Education requirements and who before breaking continuous attendance needed no more than three additional courses to complete the entire General Education requirement shall be allowed to complete the General Education requirement in effect at the time of the previous attendance. However, all students must complete at least 9 units of upper division General Education courses, of which a minimum of 6 units must be Capstone courses.

Previous CSULB students who were under the earlier General Education requirements and who before breaking continuous attendance completed one or more upper-division GE courses shall be required to complete additional Capstone courses as needed to complete the total of 9 upper-division units. At least two of the courses in the overall program must be Capstone courses.

Transfer students who enter CSULB with full GE certification from a California Community College must complete both the Human Diversity in the U.S. and the Global Issues requirements if these requirements were not met through transfer, but these students need not complete any other GE courses except the Capstone, which cannot be met through transfer from a community college. Transfer students who enter CSULB without full GE certification or subject-area (partial) certification from a California Community College must either complete the CSULB GE requirements, or complete and obtain a GE certification from a California Community College which will be honored as meeting CSULB’s lower-division GE requirements.

Majors

Choosing a major is one of the most important, and sometimes most difficult, academic decisions students will make during their college careers. There may be many possible choices of major that would provide preparation for a given career. The section on Degrees, Options, Minors and Certificates in this Catalog shows the many choices available and where to find information in each. Many departments have additional information posted on their web pages, accessible from the university’s home page. Students are encouraged to interview faculty in possible majors and to seek the help of academic and student services professionals to assist them in making this important decision.

Declaration of a Major

CSULB students must meet precise major specific criteria in order to declare a major. While freshmen are admitted directly into some majors, many majors require that students begin as pre-majors and then declare the major if and when they complete the major specific criteria. All students must have a declared major by the time they reach 60 earned units (PS 06-04). This applies to students who are Undeclared or are currently in a pre-major.

Except for "Highly Impacted" majors, native CSULB students can declare a major if they meet the major specific minimum cumulative GPA and required lower division preparation. There are limitations on the ability to add a second major or to add/change degree objectives based on the following policies - Academic Progress Rules for Undergraduate Programs (http://www.csulb.edu/divisions/aa/grad_undergrad/senate/policy/academic/alphabetical/ProgressRules.html) and Timely Graduation for Undergraduate Students (http://www.csulb.edu/depts/enrollment/graduation/bachelors/grad_undergrad.html).

Steps for Pre-majors to Declare the Major

Students who are in a pre-major must meet major specific criteria in order to declare the major; therefore, the student should review the criteria in Major Specific Declaration Requirements for CSULB Students (http://www.csulb.edu/depts/enrollment/graduation/native-major-criteria/index.html) carefully. The student can check progress towards satisfying the pre-major requirements by reviewing his/her Academic Requirements Report available in 'Academics Section' of the Student Center in MyCSULB. Be aware that “Highly Impacted” majors are very competitive and have additional requirements. If the major specific criteria is satisfied, meet with the department academic advisor to begin the process. If the major advisor supports the request, the advisor will electronically submit the request to the Office of Enrollment Services. Please note that CSULB’s Academic Progress Rules for Undergraduate Programs policy may affect a student’s ability to continue in his/her degree objective.

Change of Major or Other Objective

Students wishing to change a degree objective must meet the major specific criteria for the new major as defined in Major Specific Declaration Requirements for CSULB Students (http://www.csulb.edu/depts/enrollment/graduation/native-major-criteria/index.html). The following CSULB policies may affect the student’s ability to change majors: Academic Progress Rules for Undergraduate Programs (http://www.csulb.edu/depts/enrollment/graduation/bachelors/change_degree_objective.html#acad-prog-rules) and Timely
Minors and Certificates

Declaring a Second Major

Students may be allowed to complete the requirements for two baccalaureate programs concurrently in accordance with the Timely Graduation Policy. Students wishing to add a second major must meet the major-specific criteria for the new major as defined in Major Specific Declaration Requirements for CSULB Students (http://www.csulb.edu/depts/enrollment/graduation/graduation/native-major-criteria/index.html). While students are encouraged to pursue their academic interests, all degree objectives (e.g., majors, minors, certificates) must be completed within 120% of the units allowed for the primary degree as stipulated in CSULB’s Timely Graduation for Undergraduate Students policy (http://www.csulb.edu/depts/enrollment/graduation/bachelors/timely_grad_ugrad.html). Also note that CSULB’s Academic Progress Rules for Undergraduate Programs policy stipulates that if any one of a student’s three GPAs is below 2.5, the student must have the approval of his/her primary major advisor to add any additional degree objectives. Please note that students whose major GPA is near or below a 2.0 are unlikely to be allowed to pursue additional degree objectives until they have improved their major GPA. Once the student satisfies the specified criteria, the student should meet with the department academic advisor to discuss the possibility of adding the additional major. If the major advisor supports the request, the advisor will electronically submit the request to Enrollment Services. Be aware that additional information may be requested to ensure compliance with the policies mentioned above prior to the processing of the request.

The evaluation of credits transferred to the University is based in part upon the academic objective indicated on the application for admission. Students should be aware, therefore, that under some circumstances transfer courses accepted for one purpose may not be acceptable for other purposes.

Declaring a Second Major

Students may be allowed to complete the requirements for two baccalaureate programs concurrently in accordance with the Timely Graduation Policy. Students wishing to add a second major must meet the major-specific criteria for the new major as defined in Major Specific Declaration Requirements for CSULB Students (http://www.csulb.edu/depts/enrollment/graduation/graduation/native-major-criteria/index.html). While students are encouraged to pursue their academic interests, all degree objectives (e.g., majors, minors, certificates) must be completed within 120% of the units allowed for the primary degree as stipulated in CSULB’s Timely Graduation for Undergraduate Students policy (http://www.csulb.edu/depts/enrollment/graduation/bachelors/timely_grad_ugrad.html). Also note that CSULB’s Academic Progress Rules for Undergraduate Programs policy stipulates that if any one of a student’s three GPAs is below 2.5, the student must have the approval of his/her primary major advisor to add any additional degree objectives. Please note that students whose major GPA is near or below a 2.0 are unlikely to be allowed to pursue additional degree objectives until they have improved their major GPA. Once the student satisfies the specified criteria, the student should meet with the department academic advisor to discuss the possibility of adding the additional major. If the major advisor supports the request, the advisor will electronically submit the request to Enrollment Services. Be aware that additional information may be requested to ensure compliance with the policies mentioned above prior to the processing of the request.

Minors and Certificates

A minor is a structured selection of courses by which a student can enrich his or her academic preparation through concentrated study of a discipline that is different from, but may be related to, the student’s declared major. A minor is a means to augment or complement the major by broadening the student’s academic experience or serving as preparation for a specific career. A minor must be pursued concurrently with a Bachelor’s degree. A minor consists of a minimum of fifteen units, as specified by the department or program, at least six of which must be upper division. The minimum overall GPA in courses toward the minor is 2.0. A minimum of six units of coursework towards the minor must be taken at CSULB. Minors are awarded only as part of a baccalaureate degree. Students may not finish a minor after they have graduated. The minor may be in a single subject or interdisciplinary. Students may not declare or receive a minor in the same subject as the major, and the major and minor may not have the same title. The description of each minor shall have a statement listing all majors, if any, that may not be combined with that particular minor. Students should refer to the requirements of the department and college of their major, to see whether a minor is required for that major. Even if a minor is not required, students may elect to complete one or more minors from those available. Note that the award of a minor will be reflected on your transcript, not on your diploma.

Certificate programs differ from baccalaureate majors and minors in their emphasis on practical and applied uses of knowledge in a specific area of human enterprise. Certificates may only be earned concurrently with or following the award of the baccalaureate degree. Certificate programs require at least 18 units of course work, of which at least 15 units must be upper-division. Courses taken to fulfill the requirements for the baccalaureate may also be applied to certificate requirements. A maximum of two 500-level courses, taken by eligible students in their senior year, may be applied to a baccalaureate certificate program. Extension and/or transfer credit may comprise no more than one-fourth of the course work used to meet baccalaureate certificate requirements. A grade point average of at least 2.0 must be maintained in the certificate program’s course work. Courses taken to fulfill the Bachelor’s degree may also be applied to certificate requirements. Note that the award of a certificate will be reflected on your transcript, not on your diploma; a separate certificate document will be issued.

While students are encouraged to pursue their academic interests, all degree objectives (e.g., majors, minors, certificates) must be completed within 120% of the units allowed for the primary degree as stipulated in CSULB’s Timely Graduation for Undergraduate Students policy. Also note that CSULB’s Academic Progress Rules for Undergraduate Programs policy stipulates that if any one of a student’s three GPAs is below 2.0, the student must have the approval of his/her primary major advisor to add any additional degree objectives. Please note that students whose major GPA is near or below a 2.0 are unlikely to be allowed to pursue additional degree objectives until they have improved their major GPA. If the program advisor for the minor or certificate supports the request for an additional degree objective, the advisor will electronically submit the request to Enrollment Services. Be aware that additional information may be requested to ensure compliance with the policies mentioned above prior to the processing of the request.
Additional Baccalaureate Degrees

A graduated student who wishes to pursue an additional baccalaureate degree may be allowed to do so by completing a minimum of 30 units in residence after graduation, of which 24 units must be upper-division courses and 12 units must be in the major. (See the Catalog section on admissions for restrictions on the admission of candidates for a second baccalaureate degree.)

A senior, with advance approval of the Academic Appeals Committee, may earn a maximum of twelve units toward the additional degree while in residence for the first degree. Any courses to be applied to the additional degree must be specified and taken in addition to those needed to satisfy the requirements of the first degree.

Students applying for and accepted to a second baccalaureate degree program who have received their first baccalaureate degree or equivalent from an institution outside of the U.S. will be required to complete any deficiencies in the General Education pattern and will be evaluated for General Education on the same basis as undergraduates.

Enrollment of Seniors in Graduate Courses

Undergraduates may enroll in graduate courses only under the conditions specified below:

Graduate Credit Earned as a Senior

Graduate credit usually may not be earned in advance of the baccalaureate degree. Seniors may, however, be granted approval to earn a maximum of 12 units of course work in the 400 and 500 levels designated as acceptable for graduate credit and taken at this university towards their prospective graduate programs (based upon faculty recommendation, academic performance (in general a grade-point average of 3.0 (B) in the major), and promise of academic achievement in post-graduate study). Approval is subject to the following conditions: (a) the course work must be in addition to that required for the undergraduate major; and (b) the undergraduate student must have an approval from the departmental graduate advisor and the department chair prior to enrollment. (PS-92-08)

In those areas in which graduate credit is for a credential only, approval must be obtained from the appropriate department in the College of Education. Requests submitted after completion of course(s) will not be approved.

Senior Enrollment in Graduate Courses for Undergraduate Credit

Under special conditions, seniors who have a 3.0 grade-point average or better in their major and who have adequate undergraduate preparation in the subject may enroll in up to 12 units in the 500-599 series to fulfill the elective requirements of the bachelor's degree. The course work may not be applied to the units of 500-600 level course work required by the department or college for the master's degree. The student must have approval from the instructor and department chair before registration in the class(es) is permitted. (PS 92-09)

Graduation Writing Assessment Requirement (GWAR)

In order to obtain a degree or certificate from CSULB, all students must demonstrate upper-division competence in academic writing in English. All students must attempt to fulfill the GWAR before filing a request to graduate. A new GWAR policy was adopted in Spring 2012, and under this new policy all students are required to complete a writing placement test and the appropriate GWAR pathway based on the score received on that test. Beginning in Fall 2016, the GWAR Placement Exam (GPE) replaces the previous placement test, the Writing Proficiency Exam (WPE). All students, regardless of their admission dates, who have not taken the placement test prior to Fall 2016, will be required to take the GPE. WPE scores attained by students who were admitted prior to Fall 2016 will continue to be used for placement purposes, and students who completed the WPE are not required to complete the GPE.

Continuing students are required to attempt the writing placement test when they have earned between 30 and 50 units. Transfer students are urged to attempt the GPE prior to their enrollment at CSULB but are required to take the GPE in their first semester of enrollment.

Based on their score on the placement test, students who have been admitted or readmitted to CSULB in Fall 2016 or in a subsequent semester fulfill the GWAR by one of the following pathways:

• Students receiving scores of 11 or higher on the placement test will be required to complete a General Education writing intensive capstone course with a grade of “C” or better.

• Students receiving scores of 8, 9, or 10 on the placement test will be required to complete a GWAR portfolio course with a grade of “C” or better, including submission of a portfolio that earns a passing score, and to subsequently complete a General Education writing intensive capstone course with a grade of “C” or better.

• Students receiving scores of 7 or lower on the placement test will be required to successfully complete English 301A with a grade of “C” or better. To then complete a GWAR portfolio course with a grade of “C” or better, including submission of a portfolio that earns a passing score, and to subsequently complete a General Education writing intensive capstone course with a grade of “C” or better.

Undergraduate students with scores lower than 11 on the placement test will be required to begin the pathway to successfully complete the GWAR within two semesters of taking the test. These students must enroll in an appropriate pathway course each semester until they are deemed ready to take the General Education Writing Intensive Capstone course. Registration may be prevented for students not complying with timely completion of the GWAR requirement by placing a GWAR hold. Students are permitted to appeal to complete requirements concurrently if required for timely graduation. Appeals will be reviewed by the Associate Vice President, Undergraduate Studies.
Students Admitted Prior to Fall 2016

Based on their score on the placement test, students enrolled at CSULB prior to Fall 2016 fulfill the GWAR by one of the following pathways:

- Students receiving scores of 11 or higher on the placement test have satisfied the GWAR and may proceed with completion of other degree requirements.

- Students receiving scores of 8, 9 or 10 on the placement test must complete a GWAR portfolio course with a grade of "C" or better, including submission of a passing portfolio.

- Students receiving scores of 7 or lower on the placement test must complete English 301A with a grade of "C" or better and must complete a GWAR portfolio course with a grade of "C" or better, including submission of a passing portfolio.

Undergraduate students with scores lower than 11 on the placement test will be required to begin the pathway within two semesters of taking the test. These students must enroll in an appropriate pathway course each semester until they have fulfilled the requirement. Registration may be prevented for students not complying with timely completion of the GWAR requirement.

GWAR Advising & Testing

Students who have questions about their next step or who need help selecting an appropriate GWAR portfolio course should schedule an appointment with a GWAR advisor in the University Center for Undergraduate Advising, 103 Horn Center, (562-985-7378). Information about the GWAR is available at www.csulb.edu/gwar. Students who attempted the WPE once prior to Fall 2010 may attempt the placement test a second time or may enroll in an appropriate GWAR course and submit a portfolio for assessment. Students can register for the placement test online at www.csulb.edu/testing. Students must pay a fee each time they take the test to cover the costs of test administration and scoring. Testing, Evaluation & Assessment offers three-hour workshops one to two weeks prior to each placement test date. Information about these workshops, test dates, and related services is available at BH-216 or at www.csulb.edu/testing.

GWAR Registration Holds

If undergraduate students neglect to attempt the placement test by the time they earn 50 units or, if they are upper-division transfer students in their first semester of residency, CSULB will place a hold on their privilege to register for classes. Students must register for and take the placement test to release this registration hold. Students with compelling reasons can request deferrals at Advising, 103 Horn Center, (562-985-7378). Information about these workshops, test dates, and related services is available at BH-216 or at www.csulb.edu/testing. Evaluation & Assessment offers three-hour workshops one to two weeks prior to each placement test date. Information about these workshops, test dates, and related services is available at BH-216 or at www.csulb.edu/testing.

Graduation

Dates and Requests to Graduate

The University awards degrees at the end of each of four terms in a year: January (work completed at the end of Winter session); May or June (end of the Spring semester); August (end of Summer Session); and December (end of the Fall semester.)

Seniors and graduate students who expect to receive degrees or Certificates at the end of any semester, winter or summer session must complete the Request to Graduate form and/or Certificate form well in advance. The appropriate request for Spring or Summer candidates must be filed by the preceding October 15, and for Fall or Winter candidates by the preceding March 1, at the Office of Enrollment Services. The names of candidates who file within these deadlines will appear in the Commencement Program published each Spring. Publication of names in the program does not constitute graduation from the university. Credential students should apply in the Credential Processing Office, located in the Graduate School of Education by February 1 for December completion and by October 1 for Spring and Summer sessions.

Requests to graduate submitted later than the deadline will be processed after those submitted on time. The degree will be granted once all requirements have been completed, but the student’s name will not be printed in the Commencement Program.

Completion of Records and Requirements

Prior to receiving a degree, students are responsible for the following:

- Insuring that the university has received official transcripts of all work completed at other institutions. If graduation depends on any classes taken outside CSULB during the final semester or session, the transcript must be submitted by the announced date, approximately one month after the official graduation date.

- Completing all requirements for the degree, including the minimum number of units. Units will not be counted toward the minimum if they are above the acceptable total in certain categories, as listed in the degree requirements, or if they are a repetition of a course for which credit has already been counted. Any substitutions or waivers of course requirements must be submitted by the advisor.

- Completing all "In Progress" and "Incomplete" courses. No additional work may be completed after the degree is awarded. No grade can be changed after the degree is awarded, except for a change resulting from a grade appeal. Any Incomplete remaining on the record as of the graduation date will be counted as if it were an "F," with units attempted but no grade points earned, unless the instructor has specified on the Incomplete form that some other grade be recorded.

Degree Clearing

Final review of records begins three weeks after final exams in the student’s last term. If all degree requirements are complete, the degree and any honors are added to the transcript. The transcript is the official verification of the degree.

It is the student’s responsibility to submit records of all
changes in the record no later than the last day of the final semester or session. Such materials include transcripts from other institutions and amendments, substitutions, waivers, and grade changes.

**Honors for Undergraduate Students**

**I. Graduation with Honors**

**A. Latin Honors**

The following grade-point average (GPA) criteria are used to identify undergraduate students eligible for the honors specified:

- **Summa Cum Laude:** GPA equal to or greater than 3.950,
- **Magna Cum Laude:** GPA equal to or greater than 3.750 but less than 3.950, and
- **Cum Laude:** GPA equal to or greater than 3.500 but less than 3.750.

Undergraduate students may be considered eligible for honors at graduation provided that a minimum of 45 units are earned at California State University, Long Beach. For the first baccalaureate degree, the GPA shall be determined from units earned at CSULB plus transferred units. For the second baccalaureate degree, the GPA shall be determined only by courses taken after the first degree was awarded that are also required by the second major. Latin Honors will be noted on the diploma and transcript.

Master's, credential, post-baccalaureate certificate, and doctoral students are not eligible for Latin honors.

**B. University Honors Program**

An undergraduate student must complete 24 credits in Honors (General Honors Plan I-for incoming first-year students) or 15 credits in Honors (General Honors Plan II-for transfer students and continuing CSULB students) and maintain an overall GPA of 3.00 or better in Honors and in all university courses attempted to graduate from the University Honors Program. Students who successfully complete the academic requirements of the University Honors Program will be awarded a University Honors Program certificate and medallion. They will also receive the designation "General Honors – University Honors Program" on their transcript.

**C. Departmental Honors**

Departments may develop an honors curriculum in the major. The honors curriculum must contain a minimum of nine additional units. Honors in the Major are noted on the transcript.

**II. Honor Lists**

Undergraduate students exhibiting outstanding scholastic achievement are honored by being included on the President's List or Dean's List. Such recognition will be noted on the transcript each term.

**A. President's List**

Students will be placed on the President's List to honor them for academic achievement each semester in which they complete 12 or more graded course units with a semester GPA equal to or greater than 3.750. Students earning fewer than 12 graded course units per semester will be placed on the President's List in the spring semester of the academic year in which they accumulate 12 or more graded course units with an academic year GPA equal to or greater than 3.750.

**B. Dean's List**

Students will be placed on the Dean's List to honor them for academic achievement each semester in which they complete 12 or more graded course units with a semester GPA equal to or greater than 3.500 but less than 3.750. Students earning fewer than 12 graded course units per semester will be placed on the Dean's List in the spring semester of the academic year in which they accumulate 12 or more graded course units with an academic year GPA equal to or greater than 3.500 but less than 3.750.

**C. Departmental Honors**

With the approval of the dean of the college, departments may elect to award departmental honors to their graduates based on GPA and/or other criteria determined by the department. The number of honors awarded by a department shall be limited to three students or five percent of graduates, whichever is larger. Departmental honors will not be noted on the transcript.

**Timely Graduation for Undergraduate Students**

In order to provide access to the university's undergraduate major and minor programs for as many qualified students as possible, this policy is established to ensure timely graduation of undergraduate students.

Students may earn up to 120% of the number of units required for the degree in their declared primary major. Any additional degree objectives (e.g., majors, minors, certificates) must be able to be completed within the additional units allowed. For the purpose of defining unit limits in this policy:

- Units transferred from other institutions in excess of 60 units will be excluded from the unit limits.
- Units earned by Advanced Placement, International Baccalaureate, and other external exams, military credit, pre-baccalaureate unit credit, as well as unit credit by examination are excluded.
- After earning 90 units, students may change degree objectives only if they submit a plan demonstrating that all degree objectives can be completed within the 120% unit limit applicable to the higher unit major.
- Students who have not already filed to graduate by the time they have earned 100% of the units required for the degree in their declared primary major must file to graduate and submit a plan to graduate within the unit limits defined in this policy.

Students requesting an exception to the limits in this policy should file a Timely Graduation appeal. The appeal must include a rationale and an advisor-approved plan to graduate.

If an exception is not approved, students whose plan to graduate exceeds 120% of the number of units required for the degree in their declared primary major may be subject to restrictions on enrollment. If the student has earned any major regardless of whether he or she has declared that major, a degree will be conferred in that major. If the student has not earned a major, enrollment will be restricted to courses required to graduate in the major for which graduation is most likely to occur in a reasonable time.
Honor Societies

- Phi Beta Kappa – Founded at the College of William and Mary in 1776, it is the oldest and most prestigious honor society for students of the liberal arts and sciences. A chapter was established at California State University, Long Beach in 1977. Graduating seniors are elected to membership in Phi Beta Kappa on the basis of extraordinary scholarly performance at this University, after study of their records by faculty members who are themselves members of Phi Beta Kappa. No action on the part of the student is necessary to initiate consideration. Inquiries should be directed to the President of the University chapter of Phi Beta Kappa, Dr. Harold Schefski, Department of Romance, German, and Russian Languages and Literatures.

- Phi Beta Delta (International Education) – National honor society for recognition in international education or international studies. Membership for juniors, seniors, and graduate students is based on integrity of character, one year residence in the University, and outstanding scholarship. Inquiries should be directed to the President of the University chapter of Phi Beta Delta, Dr. C. J. Walter, c/o College of Business Administration.

- Phi Kappa Lambda (Music) – National honor society for students with a strong undergraduate concentration in music. Promotes music in America, especially contemporary American music.

- Pi Delta Zeta (Philosophy) – National honor society recognizing superior scholarship and academic excellence in philosophy.

- Pi Lambda Theta (Education) – National organization for recognition in education. Members include both students and faculty.

- Pi Sigma Alpha (Political Science) – National honor society for students in political science.

- Pi Mu Epsilon (Mathematics) – National honor society recognizing superior scholarship in mathematics.

- Pi Epsilon Kappa (Physical Education) – National society for recognition in sports and physical education. 3.0 GPA requirement and faculty recommendation.

- Pi Mu Alpha-Sinfonia (Music) – National organization for students in music. Promotes music in America, especially contemporary American music.

- Phi Alpha Theta (History) – National honor society in history, founded to promote the study of history through the encouragement of research, good teaching, publication, and the exchange of learning and ideas among historians.

- Phi Kappa Nu (Electrical Engineering) – National honor society furthering area interests and promoting scholarship. GPA requirement for seniors is 2.8, for juniors 3.0.

- Phi Epsilon Kappa (Physical Education) – National society to encourage scholarship among students of public administration.

- Phi Delta Gamma (Scholarship) – National honor society which fosters academic achievement and professional preparation.

- Phi Delta Kappa (Education) – National organization which promotes service, research, and leadership in education. Members include both students and faculty.

- Phi Sigma Iota (Literatures) – National honor society recognizing superior scholarship and academic excellence in modern and contemporary American literature.

- Phi Alpha (Social Work) – National honor society to improve the goals of social work on campus. GPA requirement 3.0.

- Phi Alpha Alpha (Public Administration) – National society for recognition in public administration. GPA requirement 3.0.

- Phi Epsilon (Civil Engineering) – National honor society open to Civil Engineering majors with a 2.9 GPA.

- Chi Sigma Iota (Counseling) – International honor society open to graduate students with a GPA of 3.5, scholars, and practitioners in the counseling profession.

Two additional societies which may elect students from all academic areas are:

- Mortar Board – Founded in 1918 as an honor society focusing on scholarship, leadership, and service. Mortar Board was the first national honor society founded by and for college senior women, and the membership expanded to include men in 1975. The California State University, Long Beach Cap and Gown Chapter was founded in 1972, and grew out of an honor club established here by seven women in 1963. The Cap and Gown Chapter is one of over 200 Mortar Board Chapters, with a total national membership of over 250,000 dedicated, active scholars. Mortar Board’s focus is on collaboration and balancing positive ideology with practical leadership building experiences. Mortar Board holds that both community service and dedication to academic excellence must remain constant in order to provide a full college career. Membership is extended to service-oriented CSULB seniors who maintain a minimum 3.0 cumulative GPA.

- Phi Kappa Phi – Founded in 1897 at the University of Maine, it is the oldest and largest national honor society which recognizes and encourages superior scholarship in all academic disciplines. Chapter 86 was established at California State University, Long Beach, in 1963. Admission to Phi Kappa Phi is by invitation only and requires nomination and approval by the chapter and national society. Membership for juniors, seniors, and graduate students is based on integrity of character, one year residence in the University, and outstanding scholarship. Inquiries should be directed to the President of the University chapter of Phi Kappa Phi, Dr. C. J. Walter, c/o College of Business Administration.

- Pi Sigma Alpha (Political Science) – National honor society recognizing distinct honor for students in political science.

- Pi Lambda Theta (Education) – National organization for undergraduate and graduate students. Purpose is to maintain high standards of scholarship and preparation for teaching.

- Pi Epsilon (Civil Engineering) – National honor society for students with a strong undergraduate concentration in civil engineering.

- Phi Epsilon Kappa (Physical Education) – National society for recognition in sports and physical education. 3.0 GPA requirement and faculty recommendation.

- Phi Mu Alpha-Sinfonia (Music) – National organization for students in music. Promotes music in America, especially contemporary American music.
society for political scientists. Open by invitation to upper-division and graduate students with a 3.0 GPA.

- Pi Tau Sigma (Mechanical Engineering) — National honorary fraternity encouraging and recognizing outstanding scholastic achievement of students in the field.
- Psi Chi (Psychology) — National honor society recognizing distinction in Psychology. Sponsors research and other participation in psychology.
- Sigma Alpha Iota (Music) — National organization for women in music. Aims to further the development of music in America through performance, study, and participation in both campus and community projects.
- Sigma Delta Pi – Capítulo Pi Chi — One of the purposes of this society is to honor those who attain excellence in the study of the Spanish language and in the study of the literatures and cultures of the Hispanic World.
- Sigma Theta Tau (Nursing) — International honor society recognizing superior scholastic achievement, leadership, and community service in nursing.

**CSULB Alumni Association**

The CSULB Alumni Association is the link between the University and its more than 285,000 graduates to garner their support for The Beach.

It sponsors various alumni programs, communication vehicles to inform alumni about their alma mater, and supports the University with departmental grants and student scholarships.

The Association is governed by a volunteer board of directors who serve as alumni ambassadors for the university, promote its mission, and reconnect alumni with the institution. Other volunteers assist with its other programs.

Membership dues for CSULB graduates and credential holders is a one-time $49 fee. For non-graduates, including alumni who took CSULB classes but did not graduate, the fees is $49 for the first year and $25 annually thereafter.

The main benefit for members is to keep informed about their alma mater through its magazine "Beach Connection" and e-communications. In addition, members have access at all CSU libraries (check with campus library for alumni benefits), discounts at the Carpenter Performing Arts Center events and home 49er athletic games, discount on rental of the Earl Burns Miller Japanese Garden, and access to various group insurance policies (medical, home, auto, life, etc.). Alumni also can access the CSULB Career Development Center at no cost for one year after graduation and an annual fee thereafter.

For more information about the CSULB Alumni Association, check the website at www.csulb.edu/alumni or call 562.985.5252.

**Giving at the Beach**

**Beach Fund**

Though CSULB is a publicly supported institution, generous contributions to the Beach Fund are critical to keeping the University thriving. Supporting the Beach Fund allows the President and Deans to address the ongoing, immediate needs of the University. Contributions to all areas enhance state support and student fees to provide all students with access to a quality education. Such areas most impacted by your support are:

- Student Success and Access
- Teaching and Discovery
- Creativity and Innovation
- Science and Technology
- Global and Community Engagement

None of these successes can be accomplished with state funding alone. More than 20,000 alumni, parents and friends of the University contribute to the Beach Fund each year. Gifts to the Beach Fund make it possible for our gifted students to earn the lifelong benefits of a quality CSULB education and protect the value of degrees already earned. Please feel free to contact the Office of Annual and Special Giving by phone at (562) 985-5294 or via email at BeachFund@csulb.edu.

**MyBeach Senior Class Experience**

The MyBeach program, housed within the Alumni Association, provides graduating CSULB seniors with an engaging experience during their last year at the Beach. This is created through event programming, the promotion of Beach Pride, and starting a tradition of giving back to CSULB through the Alumni Association.

The Senior Giving Campaign, housed in the Beach Fund, allows current CSULB student fundraisers to reach out to our soon-to-be-grads to introduce them to a tradition of giving back, starting with the Senior Class Campaign.
GRADUATE DEGREES AND OTHER POST BACCALAUREATE STUDIES

Vice Provost for Academic Affairs and Dean of Graduate Studies
Cecile Lindsay

Graduate Studies

A student who plans to become a candidate for a master’s degree must hold a bachelor’s degree from a regionally accredited institution or have completed equivalent academic preparation at a foreign university as determined by the appropriate campus authority. The student must have completed undergraduate course work substantially equivalent to that required at California State University, Long Beach in the discipline of intended graduate study, or must be prepared to undertake additional work to make up any deficiency. Most graduate degree programs are based upon preparation in the discipline at the undergraduate level. Undergraduate preparation is considered adequate if a candidate has met the upper-division requirements of this University for a bachelor’s degree in the subject matter area of the master’s degree program. Refer to specific departments for detailed requirements of each degree program. The following graduate degrees are offered:

Master of Arts Degree in:
- Anthropology
- Applied Sociology
- Art
- Asian Studies
- Communication Studies
- Dance
- Economics
- Education
- English
- Family and Consumer Sciences
- French and Francophone Studies
- Geography
- German
- Global Logistics
- History
- Italian Studies
- Kinesiology
- Linguistics
- Music
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Spanish
- Speech-Language Pathology

Master of Business Administration
Master of Business Administration / Master of Fine Arts in Theatre Management

Master of Fine Arts Degree in:
- Art
- Creative Writing
- Dance
- Theatre Arts

Master of Music

Master of Public Administration

Master of Public Health

Master of Social Work

Master of Science in Nursing/Master of Public Health

Master of Science Degree in:
- Accountancy
- Aerospace Engineering
- Applied Statistics
- Biochemistry
- Biology
- Chemistry
- Civil Engineering
- Computer Science
- Counseling
- Criminology and Criminal Justice
- Electrical Engineering
- Emergency Services Administration
- Engineering
- Geographic Information Science
- Geology
- Gerontology
- Health Science (discontinued)
- Health Care Administration
- Kinesiology
- Mathematics
- Mechanical Engineering
- Microbiology
- Nursing
- Nursing/Health Care Administration
- Nutritional Science
- Professional Physics
- Psychology
- Recreation Administration
- Science Education
- Special Education
- Supply Chain Management

Ed.S. in School Psychology

Ed.D. in Educational Leadership

Ph.D. in Engineering and Industrial Applied Mathematics
(awarded jointly with Claremont Graduate University)

Doctor of Nursing Practice

DPT in Physical Therapy
Certificate Programs and Graduate Study

Students, whether graduates of CSULB or of another accredited institution, may complete the requirements for and be awarded certificates while in graduate standing. Certificate programs are of two types: baccalaureate certificates which may be taken concurrently with or following the award of the baccalaureate degree, and graduate certificates which require post-baccalaureate standing. The graduate certificates are listed below, with the department responsible for each certificate indicated in parentheses.

Graduate certificate programs require at least 18 units of course work, of which at least 12 units must be at the 500- or 600-level. Courses taken to fulfill the requirements for the master's degree may also be applied to certificate requirements, if the certificate program permits, but such overlap may not exceed 15 units. Courses in directed research, directed reading, internship, and independent study may comprise no more than 3 units of a graduate certificate program. Thesis and student teaching may not be used on the program. Extension and/or transfer credit may comprise no more than one-sixth of the course work used to meet graduate certificate requirements. A grade-point average of at least 3.0 must be maintained in the graduate certificate program's course work. All courses used to complete the requirements of a graduate certificate must be completed within a five-year period from the date of the initial course work.

If you wish to pursue a graduate certificate program, you should review the course requirements given in the department course listings of this catalog. You should notify the relevant department of your intention to pursue a certificate program as early as possible so as to receive early advisement on the program.

Certificates

Applied Disability Studies (Advanced Studies in Education and Counseling)
Community College (Educational Leadership)
Health Care Administration (Health Care Administration)
Latino Health and Nutrition Studies (Health and Human Services)
Museum Studies (Art)
Nurse Education (Nursing)
Nurse Practitioner (Nursing)
Public Management Analysis (Public Policy and Administration)
Public Sector Employer-Employee Relations and Personnel Management (Public Policy and Administration)
Public Sector Financial Management (Public Policy and Administration)
Reading Certificate (Teacher Education)
Teaching English to Speakers of Other Languages (Linguistics)

Graduate and Post-Baccalaureate Admission Requirements

Applicants must meet the minimum university requirements for admission as well as the standards established by the program. Exceptions to the minimum university requirements can only be granted by the Dean of Graduate Studies based on the recommendation of the program faculty. The offer of admission may be ‘provisional’ if requirements are in progress at the time of admission that must be completed prior to enrollment in the program (e.g., earning a Baccalaureate degree). Failure to meet the terms of the admission offer may result in the rescission of the offer.

To meet the minimum requirements for admission to graduate and postbaccalaureate studies at CSULB, a student shall at the time of enrollment: (1) have completed a four-year college course of study and hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association, or have completed equivalent academic preparation as determined by appropriate campus authorities; (2) be in good academic standing at the last college or university attended; and (3) have attained an acceptable grade-point average in any of the following ways: (a) hold an advanced degree; (b) hold a baccalaureate degree with a cumulative GPA of at least 2.5 (A = 4.0); (c) hold a baccalaureate degree with a GPA of at least 2.5 in the last 60 semester (90 quarter) units attempted. Lower-division courses or courses taken in extension (except in adjunct enrollment at CSULB in the upper-division level) after obtaining the baccalaureate degree will be excluded from the calculation.

Students in the process of completing a baccalaureate degree may be admitted on a provisional basis, subject to proof of degree completion by the established deadline, if their cumulative GPA is at least 2.7 or if the GPA in their last 60 semester or 90 quarter units are calculated at 2.5 or higher.

For information on the specific requirements for admission to a given program, see the catalog section for that program. These and other CSU admissions requirements are subject to change as policies are revised and laws are amended. The CSU website, www.calstate.edu and the CSU admissions portal www.csumentor.edu are good sources of the most up-to-date information.

Graduate Standing — Conditionally Classified

Admission to Conditionally Classified Standing: Applicants who show promise of success but who have deficiencies in prerequisite preparation which, in the opinion of the program faculty, can be met by specified additional preparation, including qualifying examinations, may be offered admission with a Graduation Standing of “Conditionally Classified” on a space available basis. The academic unit granting the degree must notify the applicant of the specific preparation required, including minimum grades and the time frame for completion, within two weeks of the University offer of admission. Prerequisites should normally be completed in two semesters. Requests to allow a student longer than two semesters must be approved in advance by the Dean of Graduate Studies.

Graduate Standing — Classified

Admission to Classified Standing: Applicants who satisfactorily meet the professional, personal, scholastic, and other standards for admission to the graduate degree curriculum, including qualifying examinations, are admitted with a Graduate Standing of “Classified.”

Academic unit(s) granting the degree(s) are required to monitor the progress of students in “Conditionally Classified” status each term. Upon the successful completion of the
identified preparation, the academic unit granting the degree must notify Enrollment Services and the student that they have earned a Graduate Standing of “Classified.” If the student fails to complete the required preparation within the timeframe established, the student may be immediately dismissed from the program. The academic unit granting the degree may grant additional time based on special circumstances with the approval of the Dean of Graduate Studies. The academic unit granting the degree must notify the student and Enrollment Services of the decision to dismiss for failure to achieve “Classified Standing” in a timely manner.

Post-Baccalaureate Standing — Classified

In this status a student is eligible to enroll in a credential or certificate program, provided that such additional professional, personal, scholastic, and other standards, including qualifying examinations, as may be prescribed for the particular credential or certificate program by the appropriate campus authority, are satisfied.

Admission to the University

For admission requirements, see the Admission section of the catalog.

Requirements for Master's Degree

Applicants with a baccalaureate degree may gain admission to CSULB as a graduate student with either conditionally classified or classified status. Once admitted to CSULB in a graduate degree program, a student retains catalog rights for both the general university requirements and the specific requirements of the degree program unless the student breaks continuous enrollment. Breaking continuous enrollment severs catalog rights for both the university and program.

The receipt of a master's degree involves four major steps:
1. Admission to CSULB and the academic unit granting the degree (department, college, etc.) as either a conditionally classified or classified graduate student;
2. Completion of the requirements to achieve classified status if admitted in conditionally classified status;
3. Preparation of a program of study and advancement to candidacy; and
4. Fulfillment of all remaining requirements for the degree, major, and option, if any, resulting in graduation.

For more information, please see University Regulations Governing the Master’s Degree.

Admission to a Department as a Graduate Student

In order to pursue a credential certificate or master's degree, students must be accepted by the department or college offering the program. In some instances (see specific department listing) this process may require supplemental application to the department or college. Following review, the department or college will determine whether or not a student meets its requirements for admission to its degree program. Departments or colleges that receive more applications from qualified students than the number of graduate spaces they have available will admit students in priority order based on the strength of candidates’ qualifications.

If space is available, a student who is admissible to the University but who does not meet program requirements for admission may nevertheless be accepted as a conditionally classified graduate student by the department or college offering the program, subject to the provision that all remaining admission requirements of the program must then be fulfilled after enrollment.

Special Action

In rare and compelling circumstances, an applicant who doesn't qualify for admission under the previous provisions may be admitted by special action if on recommendation of the appropriate faculty of the department/college concerned and in the judgment of the Vice Provost for Academic Affairs and Dean of Graduate Studies or his/her designee there exists acceptable evidence that the applicant possesses sufficient academic, professional, and other potential pertinent to her/his educational objectives to merit such action, as shown through aptitude scores, recent academic performance, and experiential background.

Graduation Writing Assessment Requirement (GWAR)

As a requirement for advancement to candidacy, all graduate students must demonstrate upper-division competency in academic writing in English by fulfilling the GWAR. A new GWAR policy was adopted in Spring 2012, and under this new policy all students are required to complete a writing placement test and complete the appropriate GWAR pathway based on the score received on that test. Beginning in Fall 2016, the GWAR Placement Exam (GPE) replaces the previous placement test, the Writing Proficiency Exam (WPE). All students, regardless of their admission dates, who have not taken the placement test prior to Fall 2016, will be required to take the GPE. WPE scores attained by students who were admitted prior to Fall 2016 will continue to be used for placement purposes, and students who completed the WPE are not required to complete the GPE. Students are permitted to take the placement test only once unless they are approved to take it a second time by a GWAR advisor.

Graduate students are required to take the writing placement test, except that students who have previously (1) received degrees from accredited colleges and universities in the United States; or (2) received degrees from an accredited non-US institution located in a country where English is a primary language of communication; or (3) attained an appropriate score on the analytical writing component of an approved test are exempt from the writing assessment test.

Beginning Fall 2013, these exemptions are automatically noted on students’ records at the time of admission. Graduate students who are not exempt under one of the provisions above will either self-place into a low- or mid-range pathway in consultation with a GWAR advisor or take the placement test in their first semester of enrollment. Students admitted prior to Fall 2013 who believe they may be eligible for one of the exemptions listed above may submit a Graduate Student Petition to Satisfy the CSULB GWAR to Testing, Evaluation & Assessment, BH-216. The petition form is available at BH-216 or at www.csulb.edu/testing.

Graduate students who are not exempt from the writing placement test must fulfill the GWAR by one of the following pathways based on their score on the test:
1. Students who are exempt from the placement test and students who receive scores of 11 or higher on the
writing placement test are required to successfully meet any writing requirements specified by the student’s department.

2. Students who receive scores of 8, 9, or 10 on the placement test are required to complete a GWAR portfolio course with a grade of “C” or better, including the submission of a portfolio that earns a passing score; and successfully meet any writing requirements specified by the student’s department.

3. Students who receive scores of 7 or lower on the placement test will be required to successfully complete English 301A with a grade of “C” or better; subsequently complete a GWAR portfolio course with a grade of “C” or better, including the submission of a portfolio that earns a passing score; and meet any writing requirements specified by the student’s department.

Students who receive scores lower than 11 on the placement test are required to begin the pathway within two semesters of taking the test and must enroll in an appropriate GWAR course each semester until satisfactory completion of the pathway. Registration may be prevented for students not complying with timely completion of the GWAR requirement. Students will be permitted to appeal to complete requirements concurrently if required for timely advancement to candidacy. Appeals will be reviewed by the Dean of Graduate Studies or designee.

GWAR Advising & Testing

Students who have questions about their next step or who need help selecting an appropriate GWAR portfolio course should schedule an appointment with a GWAR advisor in the University Center for Undergraduate Advising, 103 Horn Center (562-985-7378). Information about the GWAR is available at www.csulb.edu/gwar. Graduate students should also visit their graduate faculty advisors in their first semester to determine if additional departmental or program writing requirements apply to their advancement to candidacy.

Students who attempted the WPE once prior to Fall 2010 may attempt the placement test a second time or enroll in an appropriate GWAR course and submit a portfolio for assessment. Students are not permitted to take the placement test more than two times. Graduate students must satisfy the GWAR before they will be advanced to candidacy. (Advancement to candidacy requires satisfying the GWAR and satisfactorily completing six or more semester units in residence while earning a 3.0 GPA or greater.)

Students can register for the placement test online at www.csulb.edu/testing. Students must pay a fee each time they take the test to cover the costs of test administration and scoring. Testing, Evaluation & Assessment offers three hour workshops one to two weeks prior to each test date. Information about these workshops, test dates, and related services is available at BH-216 or at www.csulb.edu/testing.

The GWAR and Registration Holds

If graduate students neglect to attempt the WPE in their first semester of residency, CSULB will place a hold on their privilege to register for classes. Students must register for and take the WPE to release these registration holds.

Students with compelling reasons can request deferrals at Testing, Evaluation & Assessment, BH-216. In certain circumstances, students, with help from their faculty or staff advisors, may submit an appeal or contract to release a registration hold temporarily.

If students fail to comply with requirements to enroll in a GWAR course, CSULB will place a hold on their privilege to register for classes. Students must meet with a GWAR advisor to release these registration holds.

Graduate Research Fellowship

The Graduate Research Fellowship is awarded by CSULB faculty to students who show potential for success in scholarly and creative activity and an interest in advanced study. Interested students should contact the office of their college dean for information on the nomination process.

Graduate Study in the International Programs

Students planning to participate and receive unit credit toward a master’s degree in an International Program should consult with the graduate advisor in the department of their major and college dean or director of graduate studies before entering the degree program.

Graduate students who have not been admitted to candidacy for a master’s degree and who participate in the International Programs may, upon their return to California State University, Long Beach, petition to have six units earned as resident credit in the International Programs included on their official student program for the master’s degree. In no case may excess grade points earned in the International Programs be used to bring a grade-point deficiency at California State University, Long Beach to the required 3.0 (B) average.

Students admitted to candidacy for a master’s degree who plan to participate in the International Program of Studies must obtain permission, prior to beginning their study abroad, to have units earned abroad applied toward satisfaction of their degree requirements. A candidate’s petition to apply units earned abroad must be reviewed and recommended by the department offering the degree. The specific courses to be taken on the foreign campus, thesis research which is to be done abroad, or any other requirements such as examinations to be taken upon the student’s return must be listed on the official student program. Usually no more than six units of credit may be transferred to apply toward the minimum 30 units for an advanced degree as a result of participation in the International Program of Studies, but a maximum of 12 units may be allowed by the Vice Provost for Academic Affairs and Dean of Graduate Studies or his/her designee in consultation with the University Graduate Council in a special case.

A copy of the candidate’s graduate student program must be forwarded to the Resident Director for the foreign area, who must certify that any credit earned abroad is appropriate to meet graduate degree requirements. Pending the faculty’s evaluation of the student’s work, a Report Delayed (RD) grade will be assigned in all courses in which work was completed abroad and which are offered to satisfy requirements toward an advanced degree.
Change of Objective

Evaluation of credits transferred to the University is based in part upon the objective indicated on the application for admission. Candidates desiring a change in graduate objective to a discipline different from that indicated on the original application must reapply to the University. Reapplication requires the submission to the Office of Enrollment Services of a newly completed Graduate and Postbaccalaureate Admission form and payment of the associated fee. The proposed new graduate department or program will review the application and notify Enrollment Services of its decision. Students who are admitted to a new discipline must then seek approval of their official student program and advancement to candidacy, using the procedures indicated below under "The Program" and "Advancement to Candidacy." Students who are not admitted to a new discipline have the option of continuing to pursue their original objective.

The only exception to the procedures described in the preceding paragraph is for students seeking to change from one degree program to another degree program within the same discipline (for purposes of this regulation, all options offered by the College of Education are considered to be part of a single discipline). In such cases, candidates must obtain department approval, asking the department to request the program change from Enrollment Services. Requests are considered on a case-by-case basis. If granted permission, candidates must then seek approval of their official student program and advancement to candidacy, using the procedures indicated below under "The Program" and "Advancement to Candidacy."

Withdrawal from the Degree Program

If a student wishes to resume graduate study after withdrawal, the student must reapply to the University and to the graduate program. If admitted, the student must be readvanced to candidacy and the department or college may determine that the student’s graduate program should be changed.

University Regulations Governing the Master’s Degree

General

The following regulations apply to all graduate degree programs. Specific academic and curricular requirements of individual degree programs are given in the departmental listings of this catalog.

In addition to whatever additional requirements a particular degree program has, all candidates for a master’s degree must complete the requirements listed below:

1. Maintain a cumulative, graduate, grade-point average of 3.0 calculated on all upper-division and graduate-level coursework attempted by the candidate at CSULB after completion of a baccalaureate degree. Exceptions to the 3.0 cumulative, graduate, grade-point average may be made only on the recommendation of both the departmental faculty offering the degree and the college dean or designee and approval by the Dean of Graduate Studies or designee.

2. Maintain at least a 3.0 average in all the courses listed on the program of study.

3. Obtain a minimum grade of C for a course to count in a program of study. Academic unit(s) granting the degree(s) may require higher minimum grades for specifically indicated courses. A student may retake a course once in order to achieve a minimum grade. A grade for a course taken the second time may satisfy a minimum grade requirement but shall not replace the grade previously earned in the course on the student’s transcript.

4. Make progress towards timely completion of the degree as determined by any milestones that the academic unit granting the degree may have established in writing and communicated to its students. Students failing to make satisfactory progress may be placed on administrative academic probation. Department Chairs or Associate Deans must notify students in writing or via email that they have been placed on administrative academic probation.

5. Complete all required courses on the program of study, which must contain a minimum of 30 units in upper-division and graduate courses. Some degree programs require additional units. Student teaching may not be included in any master’s degree program.

6. Complete at least seventy percent (70%) of the required units in the degree program at CSULB in matriculated status or as approved graduate credit earned as a senior. At the option of the department offering a master’s degree, a graduate student may use credit taken at CSULB in non-matriculated status or approved transfer credit toward up to thirty percent (30%) of the units of the program of study. Units applied towards a previous undergraduate degree cannot be transferred for credit towards a master’s degree. The academic unit granting the degree may waive units and course requirements provided the minimum thirty-unit requirement is met in accordance with Title V.

7. Complete at least seventy percent (70%) of the minimum units required for the program of study in courses at the 500 and 600 levels, including double-numbered courses (400/500). At least fifty percent (50%) of the units required for the degree shall be in courses organized primarily for graduate students.

8. Complete a thesis or project subject to all requisite approvals or pass a final, comprehensive examination. Some programs require both a final comprehensive examination and either a thesis or project. Others allow students a choice between a thesis option and a non-thesis, comprehensive examination option. Failure of either the comprehensive examination or thesis/project requirement is failure of both options. In other words, a student failing the comprehensive examination may not proceed to the thesis or project option or vice versa. Once a student has completed a semester of enrollment toward fulfillment of either the comprehensive examination or thesis option,
the student may not change from one option to the other without the approval of the graduate advisor, the department chair, and the appropriate dean or designee.

9. Complete all requirements of the degree program within seven (7) years of the date the student initiated the program (i.e., the date [semester] when the student first completed a course appearing on the student’s program of study). The Dean of Graduate Studies or designee may grant an exception to this requirement if warranted by individual circumstances and if the student re-validates the outdated work by re-taking the course, passing a comprehensive examination in the relevant course or subject field work, or fulfilling such other demonstrations of competence as may be prescribed by the department in its approved policy on revalidation.

10. Maintain continuous enrollment every spring and fall semester by registering in a course or in GS 700 or having received an approved educational leave. Registration in GS 700 is restricted to graduate students who have completed all course work, have been advanced to candidacy, and have departmental approval. Registration in a course or in GS 700 also is required in winter or summer session if that is when a student plans to graduate. Registration in GS 700 is CR/NC only.

Concurrent Master’s Degree

Currently matriculated, post-baccalaureate students may enroll concurrently in a second master’s degree program. Rather than sequentially completing one degree first and then the other, the student’s time and the university’s resources may be conserved by arrangements that permit the student to proceed in a coordinated way toward completion of the two graduate degree programs simultaneously. The two degree programs may reside in separate academic units or the same academic unit. To protect the integrity of the university’s degrees, the following conditions must be satisfied to award concurrent master’s degrees:

1. The student must complete all prerequisites for the concurrent master’s degree prior to seeking approval to declare that concurrent master’s degree;
2. A student wishing to pursue a concurrent master’s degree must first seek the approval of the graduate academic unit granting the student’s first master’s degree program to declare the additional master’s program;
3. If the student’s current graduate academic unit agrees that the additional master’s degree may be appropriate and feasible the academic unit(s) granting the degree(s) must approve the plan before the student can begin work on the additional master’s degree while still enrolled in the initial degree program. The decision whether to approve the student’s request should be based on:
   1. The extent to which the additional master’s program would form a coherent intellectual whole with the initial program;
   2. The number of units already completed in the initial master’s degree program and student’s academic performance in that coursework;
   3. The feasibility of the plan to complete the degrees in a timely manner (i.e., without violating either the “seven-year rule” or any timely completion policies of individual master’s degree programs);
   4. Any additional criteria the Dean of Graduate Studies finds relevant to the decision in any particular case.

The student is considered formally admitted only to the initial master’s degree program. If the student wishes to discontinue the initial program in favor of the added program they must reapply to the university and the plan to complete both degrees would no longer be valid.

Regard less of the number of units approved for “sharing” between two master’s degree programs, students must complete distinct culminating activities for each degree (e.g., a comprehensive exam for each of the two degrees; two different theses or projects; one comprehensive exam and one thesis or project).

Academic units that believe pursuing concurrent master’s degrees would be beneficial to their students may establish formal cooperation agreements with the approval of the Dean of Graduate Studies. Students would still need to fulfill the requirements listed above, but the process for entering the additional master’s program would be streamlined.

Second Master’s Degree

Students who have graduated with or who are about to graduate with a master’s degree from CSULB or any other regionally accredited university may apply for a second master’s degree in a different program.

CSULB will grant advancement to candidacy for the second degree only after the first degree has been awarded. All candidates for a second master’s degree must meet the following requirements:

1. Meet all admission requirements of CSULB and the academic unit granting the degree;
2. Complete all general requirements for a master’s degree at CSULB not already completed as well as all specific requirements for the new degree program. Units applied towards a previously completed degree cannot be transferred for credit towards a second master’s degree. The academic unit(s) granting the degrees may waive units and course requirements provided the minimum 30 unique unit requirement is met.
3. Earn, after the awarding of the first master’s degree, a minimum of 21 units of graduate residence credit at CSULB, including the minimum of 500 and 600 series units mandated by the academic unit in which the student is earning the second master’s degree.
Advancement to Candidacy

A student must consult with the graduate advisor for the degree program to prepare a tentative program of study. After completing prerequisites and other requirements, the student must formulate an official program of study and then apply for advancement to candidacy.

Many departments will assign the student a faculty advisor with whom the student must also consult about preparing a program of study; other departments utilize their graduate advisors for this purpose. Either the faculty or graduate advisor will assist the student in preparing a program of study. Many departments will also require a special committee to advise a student, especially when either a thesis or project is involved. The program of study must be approved by the student's department and either the college dean or designee. Once approved, a student's program of study may not be changed without the express consent of all parties involved.

The student program must list the following:
1. Courses required for removal of undergraduate deficiencies;
2. All courses taken prior to advancement to candidacy which are to apply toward the 30-unit minimum;
3. Required courses;
4. Elective courses.

The official student program, when approved, serves as the basis for the Office of Enrollment Services' graduation audit which is required before the degree can be granted. Students who have not been advanced to candidacy are subject to all changes as published in the CSULB Catalog, Policy Statements, and certifications.

Graduate student programs may be revised as the student advances toward the degree. Such revisions must be recommended by the faculty advisor and approved by the departmental graduate advisor and the college dean or director of graduate studies.

Advancement to Candidacy

Advancement to candidacy is the next step after achieving classified status. Advancement to candidacy also signifies approval of a plan of study by the student's major department and college.

The requirements for advancement to candidacy are:
1. Attainment of classified status as a student in a graduate program at CSULB;
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
3. Approval by the student's department and college of a program of study (see above);
4. Completion with a minimum GPA of 3.0 of at least six units of courses required on the student's program of study;
5. A cumulative, grade-point average of at least 3.0 calculated on all upper-division and graduate-level coursework attempted by the student at CSULB after completion of a baccalaureate degree;
6. Satisfactory completion of any assessments of competence that the department may require.

CSULB will advance to candidacy all graduate students when the above requirements have been successfully completed. In most instances, advancement to candidacy should occur no later than the end of the second semester of matriculation and must occur no later than one semester or session prior to the semester or session in which the student expects to graduate. It must occur prior to a student filing a request to graduate with Enrollment Services. Normally, a student is eligible and should file for advancement to candidacy for the semester immediately after fulfilling the requirements for advancement to candidacy listed above. All students must consult with their graduate advisor regarding advancement to candidacy as well as to determine any departmental requirements to graduate from CSULB.

An approved graduate student program remains in effect so long as a candidate is making satisfactory progress and does not withdraw from CSULB. To ensure minimum satisfactory progress toward the degree objective, the student must enroll every fall and spring semester or be on approved educational leave and complete all degree requirements within seven years after completion of the first course on the student’s program.

Prior to advancement to candidacy, the student may change degree program or options within the same department with faculty approval. Students wishing to change to a degree program in a different department must file a new application for admission. If admitted to the new discipline, the student must then follow all the steps indicated above for obtaining approval of a new student program and advancement to candidacy.

A student entering military service after having been admitted to candidacy for an advanced degree will be considered as not having withdrawn from candidacy, provided that the student is enlisted or called to active duty during a semester in which he/she is enrolled or not more than one semester thereafter and then enrolls in courses toward her/his degree within one calendar year of the date of her/his release from service.

Students who have been advanced to candidacy and absent themselves from the University on educational leave will be considered as not having withdrawn from candidacy for an advanced degree, provided the terms of the educational leave are fulfilled.

A department or college recommends a student for advancement to candidacy by forwarding a graduate student program for approval to the college dean or director of graduate studies. After the student's program has been processed and approved, a copy of the completed student program and a letter advancing the student to candidacy will be mailed to the candidate, with copies filed with the department or college and the Office of Enrollment Services.

A student must be enrolled in the semester or summer session in which advancement to candidacy takes place, and this must occur no later than one semester or summer session prior to completion of course requirements. Normally, a student is eligible and should file for advancement to candidacy after completing six units of graduate coursework for the graduate degree program with a 3.0 grade-point average.
Election of Regulations

Graduate students will be held responsible for the regulations governing master’s degrees in effect at the time of admission. A change in master’s degree objective or readmission to a graduate degree program following withdrawal requires that a new student program be filed under the current graduate policies as published in the latest edition of the catalog.

Teaching Associateships and Graduate Assistantships

Many CSULB departments have Teaching Associate (TA) and/or Graduate Assistant (GA) positions available for qualified graduate students. Students should check in department offices or on the campus website for more information.

Final Comprehensive Examination

Each academic unit granting degrees requiring a final, comprehensive examination determines the content of the examination. Such examinations may be written or oral or both. A faculty committee shall represent the academic unit granting the degree in preparing the questions, administering the examination, and scoring the results. Through the comprehensive examination, the faculty provides an opportunity for the master’s degree candidate to demonstrate analytic ability and knowledge of the discipline. Students may not enroll for courses in preparation for the comprehensive examination or take the comprehensive examination unless they have been advanced to candidacy for the master’s degree or unless advancement to candidacy will occur in the semester in which the enrollment takes place.

An academic unit granting the degree may allow a candidate who has failed the final, comprehensive examination to take it a second time, and the student should contact the departmental graduate advisor for specific procedures for the second attempt. In order for CSULB to award a candidate the master’s degree for a particular semester, the department must report the results of the comprehensive examination to Enrollment Services prior to the end of that semester.

Theses and Projects

A student may enroll for thesis or project units (courses usually numbered 698 or 699) only when that student has attained candidacy status for the degree or when advancement to candidacy will occur in the semester of initial enrollment in thesis or project units. CSULB will award a minimum of three and a maximum of six semester units for the successful completion of a thesis or project.

All thesis or project units must be specified as either credit/no credit only or letter grade only by the department. If a department selects the letter grade option the student must earn at least a B.

Theses and projects submitted in partial fulfillment of the requirements for a graduate degree at this University shall meet the following definitions established by the Trustees of the CSU.

A thesis is a written product of the systematic study of a significant problem. It clearly identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Normally, an oral defense of the thesis will be required.

A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written abstract that includes the project’s significance, objectives, methodology, and a conclusion or recommendation. An oral defense of the project may be required.

Students are responsible for understanding the definition of a graduate thesis as outlined above and must follow the format guidelines prescribed by the University and department in which the thesis is completed.

Thesis Committees

A student’s thesis committee shall consist of at least three members qualified in the areas relating to the thesis. At least two shall be full-time faculty members at CSULB, one of whom must be tenured or tenure-track. The chair of the thesis committee must be a tenured or tenure-track faculty member from a department authorized to offer a graduate degree. The thesis committee must be approved by the department chair and the graduate or thesis advisor. Normally the chair of the committee also serves as thesis director, but this is not necessarily so. The thesis director must be a person qualified in the specific area of the thesis, but need not be a tenured or tenure-track faculty member.

A thesis may be awarded for completion of the thesis; and by signing the thesis approval page, thesis committee members certify that they have determined that the thesis meets the required standards of scholarship, format, and style of the discipline.

When the thesis committee includes a thesis director who is not the chair of the committee, this person may be identified on the thesis approval page as “Thesis Director.”

Thesis Committee Chairs

Thesis committee chairs will determine that the student has the proper preparation in terms of course work and research skills to pursue the proposed thesis.

In departments where this function is not carried out by graduate advisors, thesis committee chairs will advise the student in the selection of other members for the thesis committee, ensuring that the other members are appropriate to the proposed thesis effort.
Graduate Students

Academic Probation and Disqualification

Thesis and Dissertation Office

All theses must be acceptable for deposit in the University Library. The Thesis and Dissertation Office in University Library will verify that each thesis meets the format criteria prescribed by the department or degree program and by the University and that it meets all University procedural requirements for theses. Students should consult the University Thesis and Dissertation Office for information, advice, and assistance on the mechanics of preparing a completed thesis and should purchase a copy of Master's Theses and Projects: Guide to Style and Format (copies of this guide can also be checked out from the reserve desk in University Library). The Thesis and Dissertation Office also conducts periodic workshops on how to prepare a thesis or dissertation at CSULB.

Academic Probation and Disqualification

Graduate Students

For purposes of determining eligibility to remain at the University, both quality of performance and progress toward the student’s objective will be considered. Eligibility will be determined by use of grade points and grade-point average.

Students who are enrolled in a graduate degree program in conditionally classified or classified standing will be subject to academic probation if they fail to maintain a cumulative grade-point average of at least 3.0 (as defined earlier under General Regulations Governing the Master’s Degree) in all units attempted subsequent to admission to the degree program.

Every graduate student who has been advanced to candidacy must maintain a cumulative grade-point average of 3.0 and a grade-point average of 3.0 in all courses applicable to the degree. Candidacy for an advanced degree may be revoked if a student’s cumulative grade-point average falls below 3.0 at any time. Students who become subject to dismissal from an advanced degree program will be notified of the action taken by the college associate dean for graduate studies or the Vice Provost for Academic Affairs and Dean of Graduate Studies or his/her designee.

Graduate and post-baccalaureate students are subject to disqualification if while on probation they fail to earn grades of sufficient quality to remove themselves from probationary status. Disqualification will bar such students from any further enrollment at CSULB.

Other Post-Baccalaureate Students

A post-baccalaureate classified student who fails to maintain a cumulative grade-point average of 2.5 on all units attempted at the University will be placed on probation.

A student on probation who, prior to the beginning of the next term, fails to attain a cumulative grade-point average of 2.5 on all units attempted at the University will be disqualified.

A student who is disqualified because of scholastic deficiency may petition the appropriate program authority for readmission only after an absence of two semesters or upon successful completion of summer session courses which remove the grade-point deficiency.

Petitions for readmission must indicate the reason for requesting readmission and must include a statement of any academic work successfully completed since disqualification or of any other activity which gives evidence in support of the petitioners’ belief that readmittance is warranted. An application for admission and required transcripts, as well as the petition, must be submitted to the Office of Enrollment Services before the dates established by the University for filing applications.

Academic Credit

Credit/No Credit Grading

A graduate student may take courses at the 100/200/300/400 levels under the Credit/No Credit grading policy; however, no course in which a grade of “CR” has been assigned may be used to fulfill the requirements for a master’s degree, except that the grade of “CR” may be permitted for master’s theses or projects to a maximum of six units when the individual department has specifically designated Credit/No Credit grading for the thesis/project course in the department and for field work, practicum, and/or internship courses.

For graduate students, courses at the 300/400/500/600/700 levels require "B" level proficiency to merit award of the "CR" grade; at the 100/200 levels "C" level proficiency or better is required for award of the "CR" grade.

The option of Credit/No Credit grading for graduate students on 100/200/300/400-level courses is subject to specific regulations of the individual departments regarding their graduate students and regarding the authorization for this option intrinsic to the approved course. Otherwise, no limitation exists as to the number of courses taken under this policy.

Waiver of Course Requirement and Credit by Examination

No waiver of course requirements or credit by examination may be used to satisfy master’s degree requirements. However, the following rules govern course waivers or credit by examination in satisfying prerequisites for admission to candidacy in any master’s degree program.

Any candidate for a master’s degree who believes that
previous training has provided adequate preparation in a certain area may request a waiver from the department concerned.

A candidate may also apply for course credit by examination, but only for prerequisite courses and not to satisfy any of the requirements for the master’s degree. Requests for such examinations must be made to the department concerned and approved by the department chair. Credit by examination is restricted to courses published in the current CSULB Catalog. Please see Credit by Examination in the General Regulations section of this catalog.

All course credit by examination will be recorded as CR (Credit) and will not be included in calculation of grade-point averages; such credit may not be used to remove a grade of “D” or “F” in a course already attempted, nor may course credit by examination be granted for any course which is a prerequisite to one for which credit has already been received.

Graduate Studies 700

Maintain continuous enrollment every spring and fall semester by registering in a course or in GS 700 or having received an approved educational leave. Registration in GS 700 is restricted to graduate students who have completed all course work, have been advanced to candidacy, and have departmental approval. Registration in a course or in GS 700 also is required in winter or summer session if that is when a student plans to graduate. Registration in GS 700 is CR/NC only.

Academic Load

Nine units per semester is a normal academic load for a full-time graduate student engaged in study toward a master’s degree. If a candidate wishes to exceed this limit, it should be discussed with the departmental graduate advisor. The maximum load for graduate students working toward a master’s degree is 18 units per semester. Students who are employed full-time should not exceed six units per semester.

Graduate students who wish to register for more than one unit of credit per week of attendance during the summer session must secure advance approval from the college associate dean or director of graduate studies. Petition forms and information may be obtained in the college offices.

Honors for Graduate Students

Graduate Dean’s List

The Graduate Dean’s List provides for university recognition of its most outstanding graduate students. Candidates for this honor will normally have completed all the coursework applicable to their graduate student programs at this university. The annual list is limited to one percent of the university’s graduate enrollment. Those honored will be named in the Commencement Program and will receive a certificate from the administrator in charge of graduate programs or designee.

Departmental Graduate Student Honors

In recognition of outstanding graduate student achievements, departments may honor graduating master’s and doctoral degree candidates by special recognition in the annual commencement ceremonies. The number of honors awarded by a department shall be limited to three students or five percent of graduates, whichever is larger. Departmental honors are usually restricted to students not otherwise recognized by university or college awards. These honors are normally conferred for excellence in and contributions to the discipline, including outstanding seminar papers, artistic exhibitions, special achievements in fieldwork, and in university committees and functions, as well as participation in scholarly and professional organizations resulting from student research.
ACCOUNTANCY
College of Business Administration

Department Chair: Sudha Krishnan
Department Office: College of Business Administration Room 411
Telephone: (562) 985-4653
Website: www.csulb.edu/colleges/cba/accountancy/

Faculty: David Bojarsky, Sally Chung, Michael Constas, Steven Fisher, Debra Grace, Paula Hao, Xuan Huang, Sudha Krishnan, John Lacey, Ping Lin, Praveen Sinha, Rodney Smith, Sean Yu, William Zhang

Administrative Support Coordinator: Nina Villa

Career Possibilities
Accountant • CPA • Cost Accountant • Auditor • IRS Agent
• Financial Analyst • Bank Officer • Controller • FBI Agent
• Management Information Systems Manager • Credit Analyst, Financial Analyst • Appraiser • Banker • Contract Administrator • Stock Broker (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Science in Business Administration

Admission Under Impaction
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.

Requirements
In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

1. Lower Division:
   Take all of the following:
   - ACCT 201 Elementary Financial Accounting (3) **"C" or better required.
     Prerequisite: None
   - ACCT 202 Managerial Accounting (3) **"C" or better required.
     Prerequisite: ACCT 201.
   - ECON 100 Principles of Macroeconomics (3)

2. Ethics Course Requirements:
   Choose one of the following:
   - PHIL 160 Introduction to Ethics (3)
   - CBA/PHIL 400 Business Ethics (3)

3. Critical Thinking Course Requirements
   Any critical thinking course (GE category A3); IS 100 is recommended.

4. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:
   A. Passing score (70%) on the Computer Proficiency Examination (CPE).
   B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr).
      Prerequisite: None
   C. Transfer equivalent course with a "C" or better grade.

5. Upper Division:
   A. Take all of the following:
      - CBA 300 International Business (3)
      Prerequisite: None
      - FIN 300 Business Finance (3)
      Prerequisite: None
      - BLAW 320 Legal and Regulatory Environment of Business (3)
      Prerequisite: None
      - IS 300 Management Information Systems (3) **"C" or better required.
      Prerequisite: IS 233 or equivalent.
      - IS 301 Business Communications (3)
      Prerequisite: None
      - IS 310 Business Statistics (3)
      Prerequisite: STAT 118 or MATH 114.
      - HRM 360 Organizational Behavior (3)
      Prerequisite: None
      - MGMT 300 Principles of Management (3)
      Prerequisite: None
      - MKTG 300 Marketing (3)
      Prerequisite: None
      - MGMT 425 Business Strategy and Policy (3)
      Prerequisites: ACCT 202 or ACCT 320; MGMT 300, MKTG 300, FIN 300 and IS 301.

   B. The following Capstone course must be taken at CSULB as a senior and after the upper-division prerequisite core courses have been completed:
      - MGMT 425 Business Strategy and Policy (3)
      Prerequisites: ACCT 202 or ACCT 320; MGMT 300, MKTG 300, FIN 300 and IS 301.
6. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

Option in Accountancy (120 units)
The Accountancy curriculum is designed to meet the general education goals of those entering the accounting profession. It satisfies the requirements established by the American Institute of Certified Public Accountants and may be used to meet educational requirements for the California CPA Certificate. The accounting program develops an understanding of an organization’s management information system on a broad base of general education and business administration courses. The program is carefully planned and rigorous, building the conceptual, analytical, and communication skills necessary to succeed in the accounting profession. It prepares students for careers in all areas of accounting, including the necessary qualifications for professional examinations such as the C.P.A., C.M.A., C.I.A.

Requirements
Take all of the following:

ACCT 300A Intermediate Accounting (4)
**“C” or better required.
Prerequisites: ACCT 201 with a grade of “C” or better.

ACCT 300B Intermediate Accounting (4)
**“C” or better required.
Prerequisites: ACCT 300A with a grade of “C” or better.

ACCT 320 Cost Accounting (4)
**“C” or better required.
Prerequisites: ACCT 201 and ACCT 202 with a grade of “C” or better.

ACCT 470 Auditing (4)
Prerequisites: ACCT 300B, ACCT 320 with grades of “C” or better, IS 301.

ACCT 480 Accounting Systems & Data Processing (4)
Prerequisites: IS 300, ACCT 300B and ACCT 320 with grades of “C” or better.

Take one of the following:

- ACCT 351 Federal Tax Law (4)
  Prerequisites: ACCT 201 with a grade of “C” or better.

- ACCT 400 Advanced Accounting (4)
  Prerequisites: ACCT 300B with grade of “C” or better.

Graduate Programs

Master of Science in Accountancy
Refer to the College of Business Administration section of this Catalog for information on the Master of Science in Accountancy.

Accountancy Courses (ACCT)

LOWER DIVISION

201. Elementary Financial Accounting (3)
Introduction to financial accounting practice.
For business majors. Laboratory and/or class computer applications required.

202. Managerial Accounting (3)
Prerequisite: ACCT 201.
The use and reporting of accounting data for managerial planning, cost control, and decision making purposes. Includes broad coverage of concepts, classifications, and behaviors of costs.
Letter grade only (A-F). Not open for credit to students with credit in ACCT 310

UPPER DIVISION

300A-B. Intermediate Accounting (4-4)
Prerequisites: ACCT 300A; ACCT 201 with a grade of “C” or better.
ACCT 300B: ACCT 300A with a grade of “C” or better.
Accounting theory including recording, valuation, and statement presentation of assets, liabilities, capital, and earnings. Funds statements, financial analysis, compound interest theory, and applications.
Letter grade only (A-F). Laboratory and/or class computer applications required.

320. Cost Accounting (4)
Prerequisite: ACCT 201 and ACCT 202 with a grade of “C” or better.
Theory and practice of cost accounting. Managerial use of cost accounting data for planning, controlling and decision making. Emphasis on cost accumulation and management information systems.
Letter grade only (A-F). Laboratory and/or class computer applications required.

351. Federal Tax Law (4)
Prerequisite: ACCT 201 with a grade of “C” or better.
Federal income taxation of partnerships, corporations, and S corporations. Personal and family tax planning and ethics.
Letter grade only (A-F). Laboratory and/or class computer applications required. Not open for credit to students with credit in ACCT 451.

352. Voluntary Income Tax Assistance (VITA) (1-4)
Prerequisite: ACCT 351, consent of instructor.
Federal and State income taxation of individuals. Students will provide free income tax filing for low income, elderly, disabled, and limited English proficient individuals after training and tests. Laboratory and/or class computer applications required.
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters.

400. Advanced Accounting (4)
Prerequisites: ACCT 300B with grade of “C” or better
Letter grade only (A-F). Laboratory and/or class computer applications required.

465. International Accounting (3)
Prerequisites: ACCT 201, ACCT 202, IS 301.
Letter grade only (A-F). Laboratory and/or class computer applications required.
470. Auditing (4)
Prerequisites: ACCT 300B, ACCT 320 with grades of "C" or better, IS 301.
Problems of verification, valuation and presentation of financial information in reports covered by opinion of independent public accountant. Major concepts of operational auditing and relationship to independent audit. Public accountant and internal auditor responsibilities. Rules of professional conduct.
Letter grade only (A-F). Laboratory and/or class computer applications required.

480. Accounting Systems and Data Processing (4)
Prerequisites: IS 300, ACCT 300B and ACCT 320 with grades of "C" or better.
Familiarization to accounting information systems development process. Analysis, design, development, and implementation of accounting information systems. Automation of accounting information systems studied through use and application of computers.
Letter grade only (A-F). Laboratory and/or class computer applications required.

493. Accounting Internships (3)
Prerequisite: ACCT 300A.
Real world accounting experience by working in public accounting or accounting divisions of private industry or governmental agencies. Class seminar analysis and evaluation of academic theory in terms of the real world environment.
Credit/No credit grading only.

495. Selected Topics in Accountancy (1-4)
Prerequisite: IS 301, consent of instructor.
Intensive study of current topics in accounting.
Letter grade only (A-F). May be repeated for a maximum of 8 units. Topics announced in the Schedule of Classes.

497. Directed Studies (1-4)
Prerequisites: IS 301, consent of instructor and department chair, on Dean’s List, Accountancy GPA 3.0.
Advanced individual projects, study, and research in accounting.
Letter grade only (A-F).
ADVANCED STUDIES IN EDUCATION AND COUNSELING
College of Education

Department Chair: Hiromi Masunaga
Department Coordinator: Londa Davis
Department Office: Education EED Room 10
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Department website: http://www.csulb.edu/asec
College website: http://www.ced.csulb.edu
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Faculty: Edwin Achola, Stephen Adams, Tina Arora, Robert Berdan (Ementus), Beverly Booker, Teresa Chen, Jennifer Coots, Jana Echevarria (Emerita), Lesley Farmer, Laura Forrest, Brandon Gamble, Bita Ghafoori, Gary Greene (Emeritus), Marquita Grenot-Scheyer, Kristi Hagans, Elaine J. Haglund (Emerita), Nat Hansuavadha, Lindsay Pérez Huber, A. Jean Houck (Emerita), Simon Kim, Marilyn Korostoff, Susan Leonard-Giesen, Joanne Tortorici Luna, Hiromi Masunaga, Shireen Pavri, Laura Portnoi, Kristin Powers, Paul Ratanasiripong, Ali Rezaei, Catherine Richards-Tutor, William Saltzman

Introduction
The Department of Advanced Studies in Education and Counseling offers graduate level course work in the following program areas: Educational Psychology, Educational Technology and Media Leadership, Social and Cultural Analysis of Education, Marriage and Family Therapy (MFT), School Counseling, School Psychology and Special Education/Education Specialist, as well as undergraduate service courses in life skills and other areas.

Students desiring information about graduate programs should contact the Graduate Studies office for referral to one of the faculty advisors. For information about Special Education/Education Specialist Credential, please contact the Teacher Preparation Advising Center (TPAC) office.

All CED graduate level courses (500/600) are assumed to be letter grade only (A-F) unless stated otherwise.

Graduate Degrees
Master of Arts in Education with the following options:
- Educational Psychology
- Social and Cultural Analysis of Education
- Educational Technology and Media Leadership

Two Master of Science degrees are available:
- Special Education
- Counseling

MS in Counseling offers two options:
- Marriage and Family Therapy
- School Counseling

Educational Specialist Degree in School Psychology

Graduate Certificate
Applied Disability Studies

Credentials
The department offers credentials in Pupil Personnel Services (School Counseling, School Psychology), Education Specialist/Special Education (Mild/Moderate and Moderate/Severe) and Teacher Librarian Services.

Required credential courses must be completed with a grade of "C" or better. The minimum grade point average for successful progress in the credential programs of the department is 3.0 on all units to be applied to the credential program. Students falling below 3.0 will be placed on probation. To maintain status in the credential program students must earn sufficient grade points to bring GPA back to 3.0 by the end of the regular semester following the semester in which the GPA fell below 3.0. Refer to this Catalog for policy.

Master of Arts in Education
Candidates for degrees in Master of Arts programs must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time. Program application deadlines may vary. Visit the College of Education website for program details, application guidelines and materials, and application deadlines (www.ced.csulb.edu). All university regulations governing the master's degree apply to college programs. Program requirements published in the university Catalog in effect during the year a candidate advances to candidacy are the requirements the candidate will be held to (catalog rights).

Option in Educational Psychology
The Option in Educational Psychology is a research-oriented Program designed for candidates to develop their understanding of learning and development, testing and assessment, research, and program evaluation in education. Upon completion of the program, candidates will be able to conduct qualitative and quantitative research; to make data-based decisions; to develop instruments that are psychometrically sound; and to perform formative and summative evaluation of educational programs. Visit the program website for program details (www.ced.csulb.edu/asec/academic/ed-psych).

Prerequisites
The following are required for admission to the program:
1. Baccalaureate degree in a behavioral science, education, or a related field.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The
4. Complete EDP 400 (or equivalent introduction to research course) and one of the following (or equivalent): EDP 301 or EDP 302.

Application
Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the Educational Psychology program must be submitted to the College of Education Graduate Studies Office (EED 7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission
Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission
Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:
1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Complete 6-9 units of core courses.
3. Resolve all incomplete grades.
4. Maintain a 3.0 grade point average in the prerequisites and in all core courses.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements
Master's Objective
The degree objective requires a total of 30 units (not including prerequisites) made up of a 24-unit core and a 6-unit "foundation" that culminates in either (a) a master's thesis (6 units) or (b) a written comprehensive examination plus electives (6 units) to meet the 30 unit minimum.
1. Degree Core (24 units):
   A. Take all of the following:
      EDP 419 Educational Statistics (3)
      Prerequisite: Satisfactory completion of an undergraduate mathematics course suitable for general education mathematics credit and, if required by the major, a lower-division statistics course.
      EDP 519 Quantitative Educational Data Analysis I (3)
      Prerequisites: EDP 419 or equivalent.
      EDP 520 Quantitative Research Methods in Education (3)
      Prerequisites: For majors in MA in Educational Psychology: ED P 419 or equivalent. For other majors: ED P 400 or equivalent.
      EDP 541 Seminar in Educational Measurement & Assessment (3)
      Prerequisites: EDP 419, EDP 519, and EDP 520 or equivalent.
      EDP 595 Qualitative Research Methods in Education (3)
      Prerequisites: EDP 400 or equivalent.
      EDP 596 Program Evaluation in Education (3)
      Prerequisites: For majors in Educational Psychology: ED P 419 and 520, or equivalent. For other majors: ED P 400 and 520, or equivalent.
      EDP 604 Seminar in Human Development (3)
      Prerequisites: EDP 301 or EDP 302 and EDP 400 or EDP 419.
      EDCI 533 Action Research Methods (3)
      Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor.
2. Culminating Experience
   A) Thesis Option:
      Complete all of the above 24 units of core courses
      Complete 6 units of EDP 698 Thesis
   B) Written Comprehensive Examination:
      Complete all of the above 24 units of core courses
      Complete 6 units of 500/600 level electives with program advisor approval to reach 30-unit minimum. For example:
      EDCI 695 (3) Seminar in Curriculum and Instruction
      EDP 536 (3) Collaborative Consultation in the Schools
      EDSP 564 (3) Assessment and Evaluation of Students with Disabilities

Option in Educational Technology and Media Leadership
Serving the mission of enhancing learning through the use of technology, this program provides theoretical foundations and practical skills for individuals seeking career growth in educational, corporate, and public service settings. This option prepares academic leaders, information professionals, educators and trainers to access, evaluate, use, design, and effectively manage information and communication technologies for educational and training purposes. This program also prepares those planning to pursue doctoral degrees. Visit the program website for program details (http://www.ced.csulb.edu/edtech).

Prerequisites
The following are required for admission to the program:
1. Baccalaureate degree from an accredited college or university.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The
Center for International Education (CIE) website at www.csulb.edu/cie for more information.

A working knowledge of word processing, databases, spreadsheets, desktop publishing, presentation software, Internet searching and email usage is expected.

**Application**

Candidates must apply separately to both the university and the Master's program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the Educational Technology and Media Leadership Master's program must be submitted to the College of Education Graduate Studies Office (EED 7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

**Classified Admission**

Successful applicants are admitted to the program with classified admission status.

**Advancement to Candidacy - Clear Admission**

Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Maintain a 3.0 grade point average in all course work.
3. Resolve all incomplete grades.
4. Complete all prerequisites and at least 6 units of the program in residence.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

**Requirements**

Students must complete a minimum of 30 units of upper-division and graduate courses, of which at least 21 units must be at the 500/600 level taken at this university.

1. Program core courses (18 units):
   - Take all of the following:
     - ETEC 510 Foundations of Educational Technology and Media (3)
       Prerequisite: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
     - ETEC 523 Information and Digital Literacies (3)
       Prerequisites: ETEC 444 or equivalent experience satisfying California Level I computer technology standard.
     - ETEC 525 Digital Culture and Society (3)
       Prerequisites: None.
     - ETEC 530 Leadership in Technology and Media (3)
       Prerequisites: ETEC 523 or consent of the instructor.
     - ETEC 551 Education and the Internet (3)
       Prerequisites: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
     - ETEC 570 E-Learning Design and Development (3)
       Prerequisite: ETEC 523 or consent of instructor.
   - Take one of the following:
     - EDP 520 Quantitative Research Methods in Education (3)
       Prerequisites: For majors in MA in Educational Psychology: EDP P 419 or equivalent. For other majors: EDP P 400 or equivalent.
     - EDP 595 Qualitative Research Methods in Education (3)
       Prerequisites: EDP 400 or equivalent.
   - OR
     - EDP 595 Qualitative Research Methods in Education (3)
     - EDP 596 Quantitative Research Methods in Education (3)
     - EDP 597 Mixed Methods Research (3)
   - 3. Electives (3-6 units): In consultation with program advisor, students will select 3-6 additional units to reach 30 unit minimum. Options include, but are not limited to, the following:
     - A. Advanced Technology: ETEC 535, ETEC 580;
     - B. Library and Information Science: ELIB 503A, ETEC 540;
     - C. Other courses, including those outside the College of Education (e.g., Business, Communications Studies), chosen in consultation with program advisor.
   - 4. Exit requirement (3-6 units): Electronic portfolio with interview, and one of the following chosen in consultation with the program advisor:
     - A. ETEC 695 (3 units) plus pass a comprehensive examination
     - B. EDP 699 Project (6 units) with written Project Report
     - C. EDP 698 Thesis (6 units)

**Option in Social and Cultural Analysis of Education**

The Master of Arts Degree in Education, Option in Social and Cultural Analysis of Education (SCAE), focuses on the social and cultural analysis of education in urban and international contexts. Emphasizing critical approaches to education, including critical theory and critical pedagogy, the degree’s interdisciplinary nature provides the intellectual rigor necessary for analyzing the relationship between education and society and effecting social and educational justice. SCAE courses examine education in its historical, social and political contexts, and may be applied to all levels of education: locally, nationally, and internationally. After completion of the program, graduates have a variety of career choices, not only in the educational realm, but also in the private sector and in nonprofit organizations. The program also serves as an ideal foundation for further academic study at the doctoral level. Visit the program website for program details www.ced.csulb.edu/asec/academic/social/.

**Prerequisites**

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence
of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.

3. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application
Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu).

One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the Social and Cultural Analysis of Education program must be submitted to the College of Education Graduate Studies Office (EED 7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission
Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission
Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:
1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Complete at least 6 units of the program, including SCAE 550 and 3 additional units.
3. Set academic, professional, and personal goals in consultation with advisor (facilitated through SCAE 550 and SCAE 551)
4. Maintain a 3.0 grade point average in all course work.
5. Resolve all incomplete grades.
6. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements
All students must complete a minimum of thirty-three (33) units of upper-division and graduate level courses, of which twenty-one (21) units must be at the 500/600 level. At least twenty-four (24) units must be completed in residency. With consent of the student's advisor and after following procedures for course equivalencies, students may count up to six (6) units of previously taken graduate courses toward the degree.

1. Core Courses (6 units)
   Complete the following:
   SCAE 550 Foundations of Social and Cultural Analysis of Education (3)
   SCAE 551 Critical Pedagogies (3)

2. Emphasis Area (9 units)
   Take three courses in one area:
   - International Contexts: SCAE 566, SCAE 567, SCAE 568, SCAE 564
   - Urban Contexts: SCAE 560, SCAE 561, SCAE 562, SCAE 564

3. Second Emphasis Area (3 units)
   Choose one course from the SCAE 566-568 series for international contexts or from the SCAE 560-562 series for urban contexts.

4. Electives (6 units)
   Choose 2 courses in consultation with faculty advisor. Students who choose the thesis or project exit option (see below) generally use the required two (2) semesters of EDP 698 or EDP 699 as their elective courses. Students may choose to take additional elective courses to supplement program requirements if they wish.

5. Research Methods Courses (6 units)
   Take the following course:
   EDP 400 Introduction to Educational Research (3)
   Prerequisites: None.

   Take one of the following courses: EDP 520, EDP 595

6. Capstone Course (3 units)
   Take the following course:
   SCAE 695 Social and Cultural Analysis of Education Capstone (3)
   Prerequisites: None.

7. Culminating Experience. In consultation with faculty advisor, choose one of the following:
   - Comprehensive examination
   - Six units of EDP 698: Thesis
   - Six units of EDP 699: Project

Master of Science in Counseling
Counselors serve valuable functions in fields of education, health and human services, and business. Their domains of practice include public and private educational institutions, medical facilities and allied health agencies, social service agencies and organizations, state and federal human service agencies and programs, correctional facilities, business and industry, and private practice. The program's philosophy is to introduce students to a variety of approaches to counseling, and to encourage the development of competencies within these approaches.

The program combines theory and practice utilizing on and off campus course work and field work assignments. Required courses are offered predominantly in the evening, but most field assignments require daytime participation during normal business hours defined by the off-campus sites.

Students coming from diverse experiential backgrounds are trained at the graduate level to be able to perform entry level duties expected by the counseling profession and its specialty areas. Students are prepared to assume future leadership positions in their area(s) of expertise after additional work experiences have been acquired in the field following graduation.

Prerequisites
The following are required for admission to the program:
1. Baccalaureate degree from an accredited college or
university in a behavioral science, education, or related field.
2. Minimum 2.85 overall grade point average in last
degree (not credential or certificate) earned from
an accredited institution of higher education.
Applicants whose overall GPA is less than 2.85 but
meet the University minimum GPA requirement and
who present compelling evidence of academic and
professional potential either through recent academic
performance and/or experiential background, may
be considered for admission at the discretion of the
program admission committee.
3. International applicants have additional university
application requirements including meeting the English
language proficiency requirement. Please visit The
Center for International Education (CIE) website at
www.csulb.edu/cie for more information.

Application
Candidates must apply separately to both the university
and the program by posted deadlines. Applications should
be submitted at the same time. Program Option application
deadlines may vary.
The application for Graduate Admission to the University
is available online through CSUMentor (www.csumentor.
edu). One complete set of official transcripts must be
submitted with the university application. This set of
transcripts will be used to determine grade point average
eligibility. Failure to submit transcripts in a timely manner will
result in a delayed review of the application.
A separate application to the selected Counseling
program Option must be submitted to the College of
Education Graduate Studies Office (EED 7). You may
only apply to one program per year. A program Option
application and directions can be downloaded at www.
ced.csulb.edu/graduate/application-packets. The program
Option application does not require a set of transcripts. After
an initial paper screening, select applicants are invited for
an interview with program faculty.

Classified Admission
Successful applicants are admitted to the program
Option with Classified Admission status.

Advancement to Candidacy - Clear Admission
See individual Options below.

Option in Marriage and Family Therapy
Students in this Option will be prepared for licensed
independent MFT practice to work in private practice,
community-agency settings, government-court settings,
hospitals, clinics, Employee Assistance Programs, and
city-county-state agencies to provide counseling services
for adults, children, families, and couples. Visit the program
website for program details (www.ced.csulb.edu/mft).

Prerequisite
Take the following course:
EDP 400 Intro to Educational Research (3)
(or equivalent)
Prerequisites: None.

Advancement to Candidacy - Clear Admission
Students should advance to candidacy as early as
possible. For advancement to candidacy (Clear Admission
status), students must:
1. Fulfill the campus Graduation Writing Assessment
Requirement (GWAR).
2. Complete COUN 510, COUN 513, COUN 515, COUN
522, COUN 608, COUN 609.
3. Maintain a 3.0 grade point average in all course work.
4. Resolve all incomplete grades.
5. Submit to the Graduate Studies Office an Advancement
to Candidacy form signed by the program advisor.

Requirements
Take all of the following (58 units) and choose option A or
B below:
- COUN 508A Family Systems Applied to Aging and
Lifespan Development (3)
  Prerequisites: None.
- COUN 508B Family Systems Methods (3)
  Prerequisites: COUN 508A or consent of instructor.
- COUN 510 Law and Ethics for Counselors (3)
  Prerequisites: None.
- COUN 511 Counseling the Alcohol/Chemically
Dependent Person (2)
  Prerequisites: None.
- COUN 512 Child and Spousal/Partner Abuse (1)
  Prerequisites: None.
- COUN 513 Introduction to Clinical Interviewing (3)
  Prerequisites: None.
- COUN 514 Medication and Counseling (2)
  Prerequisites: COUN 513 or consent of instructor.
- COUN 515 Counseling Theories (3)
  Prerequisites: COUN 513.
- COUN 522 Counseling Methods and Techniques (3)
  Prerequisites/Corequisites: COUN 513, COUN 515.
- COUN 543 Human Sexuality Counseling (3)
  Prerequisites: COUN 515.
- COUN 555 Cross-Cultural Counseling (3)
  Prerequisites: COUN 510, COUN 513, COUN 515; COUN
506 for School Counseling Option, SDHE 538 for SDHE
Option, or their equivalent upon approval of the instructor.
- COUN 556 Counseling Children and Adolescents (3)
  Prerequisites: COUN 513 and COUN 522, or consent of
instructor.
- COUN 557 Counseling Couples (3)
  Prerequisites: COUN 515.
- COUN 601 Trauma and Grief Counseling (3)
  Prerequisites: COUN 556 or consent of instructor.
- COUN 608 Seminar in Marriage & Family Therapy (3)
  Prerequisites: COUN 510, COUN 511, COUN 512, COUN
513, COUN 515, COUN 522. Recommended: COUN 556.
- COUN 609 MFT Practicum (4)
  Prerequisites: COUN 510, COUN 511, COUN 512, COUN
513, COUN 515, COUN 522 and COUN 608.
- COUN 638 Group Counseling (3)
  Prerequisites: Admission to the MS in Counseling and/or
PPS School Counseling Credential, or School Psychology
Program, COUN 510, COUN 513, COUN 515 or equivalent
upon approval of instructor.
- COUN 643D Counseling Field Work: Marriage and
Family Therapy (3)
  Prerequisites: COUN 513, COUN 515 or equivalent
upon approval of instructor.
- COUN 644D Advanced Counseling Field Work:
Marriage and Family Therapy (3)
  Prerequisites: COUN 638, COUN 643D.
- COUN 685 Community Mental Health Counseling (1)
  Prerequisites: None
Take one of the following: EDP 520, EDP 595

Select an Option:

*Option A - Thesis* (total units: 64):
Take EDP 698 Thesis (must enroll in 6 units)

*Option B - Comprehensive Exam* (total units: 64):
Take an additional 6 units of approved electives from courses in the Counseling program.

Elective options include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 507</td>
<td>Career and Academic Counseling in K-12 Settings</td>
<td>(3)</td>
</tr>
<tr>
<td>COUN 559</td>
<td>Play and Art Therapy for Children/Adolescents</td>
<td>(3)</td>
</tr>
<tr>
<td>COUN 680</td>
<td>Family Trauma Treatment Seminar</td>
<td>(3)</td>
</tr>
<tr>
<td>COUN 681</td>
<td>Spirituality and Counseling</td>
<td>(1)</td>
</tr>
<tr>
<td>COUN 682</td>
<td>Gestalt Psychotherapy</td>
<td>(2)</td>
</tr>
<tr>
<td>COUN 683</td>
<td>Cognitive Behavioral Therapy</td>
<td>(2)</td>
</tr>
<tr>
<td>COUN 684</td>
<td>Advanced Clinical Case Formulation Seminar</td>
<td>(1)</td>
</tr>
<tr>
<td>COUN 692A</td>
<td>Introduction Psychodrama</td>
<td>(1)</td>
</tr>
<tr>
<td>COUN 692B</td>
<td>Advanced Psychodrama</td>
<td>(1)</td>
</tr>
</tbody>
</table>

**Option in School Counseling**

The Master of Science in Counseling (School Counseling Option) and the Pupil Personnel Services School Counseling Credential Programs are designed to prepare counselors to work in elementary, middle, and high schools. Both programs support a comprehensive, developmental, and collaborative school counseling model. Based upon the American School Counselor’s National Standards for K-12 School Counseling Programs and their 2003 National Model, our programs further support a balanced, holistic approach that considers the academic, career development, and personal/social needs of K-12 students. Graduates are expected to become proactive leaders who will advocate for their students and themselves, as counseling professionals working toward equity, achievement, and opportunity for all students.

Students entering the Master of Science in Counseling (School Option) program concurrently fulfill requirements for the Pupil Personnel Services School Counseling Credential and must apply to both programs. The Pupil Personnel Services School Counseling Credential (PPS/SC) is required by the California Commission on Teacher Credentialing (CTC) for persons employed by the public schools as school counselors (See Credential Programs).

Each year the School Counseling Program Information and Application Packet is revised. Applicants must use the application developed specifically for the year for which they are applying.

**Advancement to Candidacy - Clear Admission**

- Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
- Complete COUN 506, COUN 513, COUN 515, EDP 400.
- Maintain a 3.0 grade point average in all course work.
- Resolve all incomplete grades.

- Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

**Requirements**

Take all of the following (51-57 units):

COUN 506 Counseling in School Settings (3)
Prerequisites: Official admission to the School Counseling Program.

COUN 507 Career/Acd Counseling in K-12 Settings (3)
Prerequisites: COUN 506.

COUN 510 Law and Ethics for Counselors (3)
Prerequisites: None.

COUN 513 Introduction to Clinical Interviewing (3)
Prerequisites: None.

COUN 515 Counseling Theories (3)
Prerequisites: COUN 513.

COUN 555 Cross-Cultural Counseling (3)
Prerequisites: COUN 510, COUN 513, COUN 515; COUN 506 for School Counseling Option, SDHE 538 for SDHE Option, or their equivalent upon approval of the instructor.

COUN 606 Current Issues in Professional School Counseling (3)
Prerequisites: COUN 506.

COUN 607 School Counseling Practicum (3)
Prerequisites: COUN 506, COUN 515.

COUN 638 Group Counseling (3)
Prerequisites: Admission to the MS in Counseling and/or PPS School Counseling Credential, or School Psychology Program, COUN 510, COUN 513, COUN 515 or equivalent upon approval of instructor.

COUN 643A Counseling Field Work: School Counseling (3)
Prerequisites: COUN 607, Certificate of Clearance, EDP 536 (must be taken concurrently with either COUN 643A or 644A.)

COUN 644A Advanced Counseling Field Work: Advanced School Counseling (3)
Prerequisites: COUN 507, COUN 638, COUN 643A; EDP 536 (must be taken concurrently with either COUN 643A or COUN 644A); pass Basic Skills Requirement.

COUN 695C Integrative Seminar in Professional School Counseling (3)
Prerequisites: Advancement to candidacy, COUN 507, COUN 555, COUN 510, COUN 536, Certificate of Clearance, EDP 596; and permission to enroll from School Counseling Program Coordinator. Prerequisites/Corequisites: COUN 643A.

EDP 400 Intro to Educational Research (3) (or equivalent)
Prerequisites: None.

EDP 520 Quantitative Research Methods in Education (3)
Prerequisites: For majors in MA in Educational Psychology: EDP 419 or equivalent. For other majors: EDP 400 or equivalent.

EDP 536 Collaborative Consultation in the Schools (3)
Prerequisites/Corequisites: COUN 643A, 644A, EDP 428A, EDP 428B, or Field Placement in Special Education.

EDP 596 Program Evaluation in Education (3)
Prerequisites: EDP 400 and EDP 520, or equivalent.

EDP 604 Seminar in Human Development (3)
Prerequisites: EDP 301 or EDP 302, and EDP 400 or EDP 419.

EDP 698 Thesis (must take 6 units)
Prerequisites: Advancement to candidacy, EDP 519 or EDP 520 or EDP 595 or EDP 696, approval by director, department chair and associate dean.
Master of Science in Special Education

Candidates in this master's degree program work toward attaining leadership positions in public and private schools and agencies in the community that provide services for individuals with disabilities. The program is aimed at developing advanced skills and knowledge of current research in special education, and demonstration of the ability to engage in reflective inquiry. The program culminates with a thesis or comprehensive exam. The program does not result in a credential to teach students with disabilities. Candidates who want to teach individuals with disabilities should refer to the Education Specialist Credential Program section. Candidates who are in the Preliminary Education Specialist Credential Program may be eligible to apply to the master’s degree program the semester prior to completing coursework for the credential. Please contact your program advisor.

Visit the program website for program details (www.ced.csulb.edu/programs/special-education).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university, to include 24 upper-division units in 4 areas of study:
   A. Human development:
      EDP 301 or EDP 302 (or equivalent).
   B. Statistics and measurement:
      EDP 400 (or equivalent).
   C. Individual differences:
      EDSP 350 or EDSP 355A or EDSP 355B (or equivalent).
   D. Special Education Assessment:
      EDSP 564 (or equivalent).

2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.

3. Special education teaching credential, or equivalent experience.

4. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the Special Education program must be submitted to the College of Education Graduate Studies Office (EED 7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts. Prospective candidates should attend an on-campus program orientation.

Conditional Admission

Successful applicants are admitted to the program with Conditional Admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Maintain a 3.0 grade point average in all course work.
3. Resolve all incomplete grades.
4. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements

Students must complete a minimum of 36 units of upper-division and graduate courses with a minimum of 21 units at the 500/600-level taken at this university. Degree requirements include the following courses:

1. Foundation Courses:
   - Take one of the following:
     EDP 520 Quantitative Research Methods in Education (3)  
     Prerequisites: For majors in MA in Educational Psychology: EDP 419 or equivalent. For other majors: EDP 400 or equivalent.
     EDP 595 Qualitative Research Methods in Educ (3)  
     Prerequisites: EDP 400 or equivalent.
   - Take all of the following:
     EDSP 546A Induction in Special Education (2)  
     Prerequisites: Admission to the Master’s program and/or Clear credential in special education.
     EDSP 546B Induction in Special Education (1)  
     Prerequisites: Admission to the Master’s program and/or Clear credential in special education.
     EDSP 550 Emerging Perspectives in Special Education (3)  
     Prerequisites: None.

2. Required Specialization Courses:
   - EDSP 535 Collaborative Partnerships and Effective Communication in School Settings (3)  
     Prerequisites: Acceptance in Clear Credential Education Specialist Level II program or Master of Science in Special Education program, development of individualized Induction Plan, or consent of instructor.
   - EDSP 525 Advocacy and the Educational Context of Disability (3)  
     Prerequisite: Acceptance in the Master of Science in Special Education Program or consent of instructor.
   - EDSP 582 Research in Special Education: Assessment, Curriculum and Instruction (3)  
     Prerequisites: Acceptance in the Master of Science in Special Education program or by instructor consent and EDP 520.

3. One of the following advanced methods courses:
   - EDSP 577 Instructional Methods and Strategies for Individuals with Mild/Moderate Disabilities (3)  
     Prerequisites: Full admittance to Level 1 Education Specialist Credential Program or ITEP, completion of ETEC 110 or equivalent, and EDSP 564.
   - EDSP 578 Instructional Methods and Strategies for Individuals with Moderate/Severe Disabilities (3)  
     Prerequisites: Full admittance to Level 1 Education Specialist Credential Program or ITEP, and completion of ETEC 110 or
4. One of the following pathways with advisor consultation:
   A. Comprehensive exam: EDSP 695S, Seminar in Special Education (3 units) and written comprehensive exam;
5. Take 3-6 units of electives with advisor consultation to reach the 30-unit requirement.

Educational Specialist Degree in School Psychology

The Educational Specialist Degree in School Psychology is a 60-unit program. Graduates of the program are typically employed in PreK-12 education to provide direct and indirect psychological, behavioral and academic support to students. Candidates concurrently meet requirements for the Pupil Personnel Services – School Psychology (PPS/SP) credential required of persons employed as school psychologists in public schools. The program is approved by the National Association of School Psychologists (NASP) and accredited by the state Commission on Teacher Credentialing (CTC). Visit the program website for details (www.ced.csulb.edu).

Prerequisites to the Program

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential, either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. Minimum combined score (Verbal and Quantitative) of 300 on the Graduate Record Exam (GRE) or a master’s degree in a related field.
4. Completion of the following or an equivalent (may be taken after admission to the program, but must be taken prior to advancement to candidacy): ED P 405 and ED P 301 or ED P 302.
5. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application to the Program

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time. The application for Graduate Admission to the University is available online through CSU Mentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the School Psychology program must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded from the College of Education website (www.ced.csulb.edu/graduate/application-packets). The program application does not require a set of transcripts. After an initial paper screening, select applicants are invited for an interview with program faculty.

Classified Admission to the Program

Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy (Clear Admission to the Program)

Candidates should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), candidates must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Complete ED P 301 or ED P 302, ED P 405, ED P 419, ED P 520, ED P 528, and ED P 603.
3. Resolve all incomplete grades.
4. Maintain a 3.0 grade point average in the prerequisites and in all core courses.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by their program advisor.

Program Requirements

1. Completion of the following core courses (or equivalent):
2. Completion of the following core courses (no equivalents accepted):
3. Completion of a minimum of 42 units of the 51 unit core program in residency at CSULB.
4. Completion of one of the three 9 unit Emphases: (a) Educational Psychology Emphasis – 9 units from the following: EDP 519, ED P 541, ED P 595, ED P 596, ED P 604, ED P 605; (b) Thesis Emphasis – 6 units of EDP 698 and ED P 519 (quantitative thesis) or EDP 595 (qualitative thesis); or (c) Related Field Emphasis – 9 units from master’s degree in a related field.
5. Successful completion of a culminating experience (i.e., comprehensive exam or thesis).
6. All University regulations governing the master’s degree apply to the Educational Specialist degree in School Psychology.
7. Candidates are annually evaluated for specific professional competencies. If a candidate is found insufficient on one or more of the competencies, the candidate may be required to complete additional course work, practica, fieldwork, and/or other activities before being approved for the PPS intern or full credential and Ed.S. Degree.
10. Completion of the National School Psychology Examination (ETS/PRAXIS II #10400) prior to completion of the program.
Graduate Certificate in Applied Disability Studies

The graduate certificate in Applied Disability Studies is designed to prepare graduate students to work with individuals with disabilities in a range of school, healthcare, private sector, community, government agency, and other organizational settings. Students will gain insights and experiences through coursework and fieldwork that will strengthen their knowledge and skills in working with individuals with disabilities. This interdisciplinary program includes coursework from across Departments and Colleges in the University. The certificate program consists of 18 units; 6 specific units are required for this program, and the student will consult with the program advisor in selecting 3-6 units of fieldwork requirements, and 6 – 9 units of elective courses.

Applicants to the Graduate Certificate in Applied Disability Studies must have earned a Bachelor’s degree and be matriculated in a Master’s degree program at CSULB. Students must earn the graduate certificate in Applied Disability Studies while in matriculated status as a graduate student at CSULB.

Requirements

1) Submit an application for the Graduate Certificate in Applied Disability Studies to the College of Education Office of Graduate Studies.
2) Be matriculated in a master’s degree program at CSULB.
3) Complete the following coursework:
   (i) Required course
      EDSP 570 Community Inclusion: Introduction to Individuals with Disabilities (3 units)
   (ii) Select one of the following two courses:
      EDSP 525- Advocacy and the Educational Context of Disability (3 units) OR REC/GERN 469/569
         - Disability, Culture and Society: Issues and Intervention (3 units)
   (iii) Complete 3 – 6 units of clinical field experience/internship (a minimum of 3 units is required for the Graduate Certificate program in Applied Disability Studies). This fieldwork will typically be a required component of the master’s degree program that you are pursuing, and you will complete 90 hours of fieldwork with individuals with disabilities during your graduate fieldwork. Contact the program advisor if your master’s degree program does not include at least 3 units of practicum/fieldwork experiences.
   (iv) Choose 6 – 9 units of electives from any college in consultation with the Graduate Certificate program advisor.

CREDENTIAL PROGRAMS

Program requirements subject to change to align with changes in CTC requirements.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the selected credential program must be submitted to the College of Education Graduate Studies Office (EED-7) or to the Teacher Preparation and Advising Center (EED-67) for the Preliminary Specialist Education Credential. A PPS and Clear Credential program application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts. Deadlines for submitting an application for programs vary. Refer to the online directions for specific dates.

Pupil Personnel Services

The College of Education offers two of the three Pupil Personnel Services Credential programs issued by the California Commission on Teacher Credentialing (CTC): School Counseling and School Psychology.

School Psychology Credential: Please see Education Specialist in School Psych.

School Counseling Credential (code 802)

The Master of Science in Counseling (School Counseling Option) and the Pupil Personnel Services School Counseling Credential Programs are designed to prepare counselors to work in elementary, middle, and high schools. Both programs support a comprehensive, developmental, and collaborative school counseling model. Based upon the American School Counselor Association’s National Standards for K-12 School Counseling Programs and their 2003 National Model, our programs further support a balanced, holistic approach that considers the academic, career development, and personal/social needs of K-12 students. Graduates are expected to become proactive leaders who will advocate for their students and themselves as counseling professionals working toward equity, achievement, and opportunity for all students.

The Pupil Personnel Services School Counseling Credential (PPS/SC) is required by the California Commission on Teacher Credentialing (CTC) for persons employed by the public schools as school counselors. Neither a Master’s Degree nor a teaching credential is required for school counseling positions in the State of California. However, in keeping with national standards, students entering the CSULB Pupil Personnel Services School Counseling Credential Program need to earn a Master of Science in Counseling (School Counseling Option) concurrently with the credential, unless they already have a Master’s Degree in Counseling from CSULB or another institution. Thus, applicants to the Pupil Personnel Services School Counseling Credential Program who lack a Master’s Degree in Counseling must concurrently apply to the Master of
Science in Counseling (School Counseling Option) Program to be considered.

Courses required for the Pupil Personnel Services School Counseling Credential are the same courses that are required for the Master of Science in Counseling (School Counseling Option). Thus, students seeking the Pupil Personnel Services School Counseling Credential are required to take all coursework required for the Master of Science in Counseling (School Counseling Option).

Prerequisites
1. Baccalaureate degree from an accredited college or university with some coursework in the social sciences, behavioral sciences, or related fields.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application
Each year the School Counseling Programs Information and Application Packet is revised. Applicants must use the application developed specifically for the year for which they are applying. Candidates are admitted for fall only, although admitted candidates may begin coursework during the preceding summer semester. Applications and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets.

CBEST Requirement
Admitted students must take the California Basic Educational Skills Test (CBEST) no later than the second available administration date following enrollment in the program.

Requirements
1. Completion of the Master of Science in Counseling (School Counseling Option) or an approved equivalent degree.
2. All of the following:
   - COUN 506 Counseling in School Settings (3)
     Prerequisites: Official admission to the School Counseling Program.
   - COUN 507 Career/Acad Counseling in K-12 Settings (3)
     Prerequisites: COUN 506.
   - COUN 510 Law and Ethics for Counselors (3)
     Prerequisites: None.
   - COUN 513 Introduction to Clinical Interviewing (3)
     Prerequisites: None.
   - COUN 515 Counseling Theories (3)
     Prerequisites: COUN 513.
   - COUN 555 Cross-Cultural Counseling (3)
     Prerequisites: COUN 510, COUN 513, COUN 515; SDHE 538, or their equivalent upon approval of the instructor.
   - COUN 606 Current Issues in Professional School Counseling (3)
     Prerequisites: COUN 506.
   - COUN 607 School Counseling Practicum (3)
     Prerequisites: COUN 506, COUN 515.
   - COUN 638 Group Counseling (3)
     Prerequisites: Admission to the MS in Counseling, and/or PPS School Counseling Credential, or School Psychology Program, COUN 510, COUN 513, COUN 515 or equivalent upon approval of instructor.
   - COUN 643A Counseling Field Work: School Counseling (3)
     Prerequisites: COUN 607, Certificate of Clearance, EDP 536 (must be taken concurrently with either COUN 643A or COUN 644A.)
   - COUN 644A Advanced Counseling Field Work: Advanced School Counseling (3)
     Prerequisites: COUN 507, COUN 638, COUN 643A, EDP 536 (must be taken concurrently with either COUN 643A or 644A); pass CBEST.
   - COUN 695C Integrative Seminar in Professional School Counseling (3)
     Prerequisites: Advancement to candidacy; COUN 507, COUN 555, COUN 638; EDP 596; and permission to enroll from School Counseling Program Coordinator.
     Prerequisites/Corequisites: COUN 643A.
   - EDP 400 Intro to Educational Research (3)
     (or equivalent)
     Prerequisites: None.
   - EDP 520 Quantitative Research Methods in Education (3)
     Prerequisites: For majors in MA in Educational Psychology: ED P 419 or equivalent. For other majors: ED P 400 or equivalent.
   - EDP 536 Collaborative Consultation in the Schools (3)
     Prerequisites/Corequisites: COUN 643A, COUN 644A, EDP 400 and EDP 419, or field placement in Special Education.
   - EDP 596 Program Evaluation in Education (3)
     Prerequisites: EDP 400 and EDP 520, or equivalent.
   - EDP 604 Seminar in Human Development (3)
     Prerequisites: EDP 301 or EDP 302, and EDP 400 or EDP 419.

3. Fieldwork:
   A. School Counseling Field Work (COUN 643A) (300 hrs. of approved activities, average of 20 hours per week)
      (1) COUN 607
      (2) Certificate of Clearance
   B. Advanced School Counseling Field Work (COUN 644A) (300 hours of approved activities, average of 20 hours per week);
      (1) COUN 507, COUN 638, COUN 643A; EDP 536 (or concurrent enrollment in 536)
      (2) Pass CBEST

4. Certification of program completion by the faculty is required. The faculty may require students to complete additional course work, fieldwork, or demonstrate specific competencies before recommendation to the CTC for the PPS School Counseling credential.

School Psychology Credential
See "Educational Specialist in School Psychology” program.
Special Education Credentials

The Education Specialist Credential Program prepares and recommends for certification special education teaching candidates in the CTC Education Specialist Credential categories of Mild/Moderate and Moderate/Severe. An Intern Option is also available in collaboration with certain school districts. Please consult with the Teacher Preparation Advising Center for further information.

Preliminary — Education Specialist Credential and Intern Option:
Mild/Moderate Disabilities (code 468)
Moderate/Severe Disabilities (code 469)

Clear Education Specialist Credential:
Mild/Moderate Disabilities (code 468)
Moderate/Severe Disabilities (code 469)

Preliminary — Education Specialist Credential Program: Mild/Moderate and Moderate/Severe

The Education Specialist Credential Program prepares candidates in the areas of Mild/Moderate and Moderate/Severe disabilities in a program approved by the California Commission on Teacher Credentialing. The program is designed so that candidates may be certified in both areas of authorization if they complete the corresponding methods course and two separate field experiences, i.e., one with students with mild and moderate disabilities and one with students with moderate and severe disabilities. Upon admission to the program, candidates must identify an area of authorization and indicate whether their goal is to become certified in one or both areas. An Intern Option is also available in partnership with selected school districts. Candidates should consult an advisor in the College of Education Teacher Preparation Advising Center (TPAC) for further information. An Education Specialist Credential can also be earned in conjunction with the Integrated Teacher Education Program (ITEP). Candidates should consult an advisor in the Liberal Studies Department for further information.

Application

Application for admission to the Education Specialist Credential Program (ESCP) should be made the semester before beginning the required courses. Students may apply to the program while taking prerequisite courses and may be admitted on a conditional basis pending their completion. Applications are available online at www.ced.csulb.edu/special-education. Applications should be submitted to the Teacher Preparation Advising Center.

Admission

1. Be admitted to the University as a post-baccalaureate (credential) student. (Note that application to the University is a separate process. Apply through www.csumentor.edu)
2. Submit an Education Specialist Credential Program application by the posted application deadline.
3. Attain a grade point average of at least 2.67 in all baccalaureate and post-baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester units or 90 quarter units completed.
4. Provide documentation of a structured field experience of at least 45 hours in a K-12 general education classroom setting.
5. Submit two letters of recommendation from individuals who are well acquainted with your educational training, relevant teaching, and other related experiences.
6. Submit a typed personal essay describing how your interest in special education began; the experiences, training and talents that you bring to the area of special education; your short-term and long-term career goals; and how the program’s goals fit your personal goals.
7. Submit a negative tuberculosis skin test or chest X-ray taken within the last three years. (TB clearance must be valid through advanced field study (student teaching).)
8. Submit proof of having taken the California Basic Educational Skills Test (CBEST). You must have attempted all three parts of the CBEST. Passage of the CBEST is required before you begin your advanced field study (student teaching).
9. Pass an oral interview with program faculty.
10. Demonstrate proficiency in reading and writing English by (1) attaining a minimum passing score of 37 on each of the reading and writing portions of the CBEST exam; and/or (2) through demonstration of appropriate writing skills on your personal essay and oral communication skills in the interview with program faculty.
11. Demonstrate personal and professional character traits that satisfy the standards of the teaching profession and display a suitable aptitude for teaching students with special needs in public schools through the application documentation and interview with program faculty. (Candidates must continue to demonstrate appropriate personal and professional character traits through completion of the program.)
12. Submit an application for a Certificate of Clearance to the California Commission on Teacher Credentialing (CTC) or provide evidence of recent fingerprint clearance. Submit a copy of the Certificate as demonstration of clearance or a copy of a certified mail receipt as demonstration of submitting an application.
13. Submit proof of having demonstrated subject matter competence by passing all three sub-tests of the California Subject Exam for Teachers: Multiple Subjects (CSET: Multiple Subjects) or the appropriate single subject CSET exam in Math, Science, or Language Arts to meet the highly qualified teacher mandate. See the program advisor for more information.
Applicants will be informed by email of the decision of the program faculty regarding acceptance into the program. Upon acceptance, the candidate is required to meet with an assigned program faculty for advisement and may begin taking preliminary program coursework in the advised sequence.

Application and Admission to the Intern Option
Interns are teachers of record employed by a local school district who earn their credential concurrent with meeting their classroom teaching responsibilities. Prior to applying for the Education Specialist Intern Program (ESIP), applicants must be admitted to the Education Specialist Program (see above).

In addition, Education Specialist Intern Program candidates must:
1. Be employed by a collaborating school district in a qualifying special education classroom or setting.
2. Submit an application for an intern credential (CTC Application 41-4) to the Commission on Teacher Credentialing through the college Credential Center.
3. Maintain continuous university matriculation for the duration of the internship.
4. Submit proof of passage of the California Basic Educational Skills Test (CBEST).
5. Meet the U.S. Constitution requirement (through POSC 100 or 391 or equivalent course at another institution or by exam).
7. Complete all Education Specialist Program prerequisites.
8. Submit one copy of official sealed transcripts from all universities/colleges attended indicating a grade point average of at least 2.67 in all baccalaureate and post-baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester units or 90 quarter units completed.

Requirements for the ESCP and ESIP

To be considered for full admission in the ESCP and ESIP programs, candidates must complete all prerequisite courses (13 units):

Take one of the following:
EDP 301, EDP 302, HDEV 307, PSY 361

Take all of the following:
EDSP 350 Introduction to Teaching the Exceptional Individual (3) 
Prerequisites: None.
EDSP 454 Supporting the Academic and Language Development of English Learners (3) 
Prerequisites: Consent of Instructor.
EDP 405 Positive Strategies for Classroom Management (3) 
Prerequisites: None.
ETEC 110 Introduction to Computers as Tools (1) 
Prerequisites: None.

Fully admitted candidates complete core courses (33 units)

Take all of the following:
EDSP 480 Foundations of Inclusive Education in a Diverse Society: Philosophical and Historical Perspectives and Legal Mandates (3) 
Prerequisites: Admission to Education Specialist Credential Program.
EDSP 534 Collaboration and Transition in Special Education (3) 
Prerequisites: Full admittance to Education Specialist Credential Program or ITEP.
EDSP 564 Assessment and Evaluation of Students with Disabilities (3) 
Prerequisites: Admission to the Education Specialist Credential Program or consent of instructor.
EDP 560 Functional Behavior Assessment and Positive Behavior Support (3) 
Prerequisites: EDP 405.
EDEL 462 Teaching and Learning Mathematics, K-8 (3) 
Prerequisites: Admission to the Multiple Subject Credential Program.

Take one of the following:
EDEL 452, EDE 457
Take one of the following:
EDSP 577, EDSP 578

Core courses include the advanced fieldwork courses:
Take one of the following pairs of courses:
EDSP 587A and EDSP 587B
or
EDSP 588A and EDSP 588B

Candidates for dual authorization must complete the methods course and 6 units of student teaching in the second authorization.

The candidate’s overall grade point average must continue to meet the program admission standard. A 3.0 grade point average in the core courses is required to advance to fieldwork (student teaching).

Candidates in the ESIP program must identify and work closely with a site-based support team comprised of their site-support coach, principal, and other school and district support personnel throughout the program.

Advanced Fieldwork (Student Teaching)
Requirements for the ESCP and ESIP

The final phase of the ESCP and ESIP programs is advanced fieldwork (student teaching). Candidates are required to student teach for 4 days a week for the length of the semesters that they are enrolled in advanced field study courses. ESCP candidates student teach as a traditional student teacher under the direction of a master teacher. ESIP candidates use their own K-12 special education classroom setting in which they are the teacher of record as their advanced fieldwork placement.

A separate application is required for advanced fieldwork (student teaching). Applications for advanced fieldwork must be submitted by the posted deadlines during the semester prior to which the candidate wishes to student teach. Application packets are distributed at program Fieldwork Information meetings, which are announced in program courses and posted on the program website. Upon notification of acceptance to advanced field study, candidates register for Advanced Field Study: EDSP 587 A & B or EDSP 588 A & B.

To be eligible for advanced fieldwork (student teaching), candidates must:
1. Pass CBEST.
2. Complete all program prerequisite and core courses.

2016-2017 CSULB Catalog • Advanced Studies in Education and Counseling • 107
Mild/Moderate and Moderate/Severe
Clear Education Specialist Credential:

Applying for the Preliminary Education Specialist Credential

To be eligible for the Preliminary Education Specialist Credential, candidates must successfully meet all program requirements, including passing student teaching. They must also pass the Reading Instruction Competency Assessment (RICA). Candidates may take the RICA at any time prior to applying for the credential. RICA information booklets are available in the Teacher Preparation Advising Center (EED-67). Candidates apply for the credential through the college Credential Center.

Petition Process

Appeals to program decisions or requests for policy waivers are made by filing a written appeal to the program appeals committee. The committee reviews the written statement and supporting evidence. After the review, the committee renders its final decision.

Clear Education Specialist Credential:

Mild/Moderate and Moderate/Severe

Candidates who have completed their Education Specialist Preliminary credential can earn the Education Specialist Clear Credential at CSULB. The advanced Clear Credential program prepares candidates to meet the academic, behavioral, and social-emotional learning needs of all students with disabilities from birth-22 under IDEA categories. Candidates must earn the Clear credential within 5 years of completing the Education Specialist Preliminary credential.

Candidates can earn their Clear credentials in the following areas:

- Education Specialist Mild/Moderate Professional Clear Credential
- Education Specialist Moderate/Severe Professional Clear Credential

These two professional Clear credentials align with our Preliminary Credential Program at CSULB that offers both the mild/moderate and moderate/severe Preliminary credentials.

Prerequisite Conditions and Requirements

1. Admission to the University.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. Completion of Preliminary/Level I Credential or Certificate of Eligibility.
4. CPR certification.
5. Two letters of recommendation (from employer and a university faculty member at previous institution).
6. Interview with program faculty.
7. Attendance at an on-campus program orientation.

Upon acceptance to the program, candidates will attend a mandatory orientation meeting at which time they will complete an Individualized Induction Plan (IIP) with the Clear Credential program coordinator. This program planner will assist candidates in taking courses in an appropriate sequence.

Credential Activities

Candidates will complete supervised observations with a university faculty member.
Candidates will develop a portfolio, which includes observation logs, lesson plans, and reflections.

Coursework

The Clear credential requires 12-units of upper division and graduate courses that must be taken at the 500/600-level taken at CSULB. Credential requirements include the following courses:

- Foundation Courses (6 units):
  - EDSP 546A Induction in Special Education (2 units)
  - EDSP 546B Induction in Special Education (1 unit)
  - EDSP 550 Emerging Perspectives in Special Education (3 units)

- Specialization Courses (6 units, select any 2 of the following courses)
  - EDSP 535 Collaborative Partnerships and Effective Communication in School Settings (3 units)
  - EDSP 525 Advocacy and the Educational Context of Disability (3 units)
  - EDSP 582 Research in Special Education:
Teacher Librarian Services Credential (code 700)

The 27-unit credential program in Teacher Librarian Services prepares students for service as a teacher librarian, grades PK-adult, in the State of California. The coursework can also be applied to the Masters of Arts in Education, Option in Educational Technology and Media Leadership.

Prerequisites

1. Baccalaureate degree from an accredited college or university.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education.

Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.

3. Valid California teaching credential.
4. Passage of California Basic Educational Skills Test (CBEST) or equivalent.
5. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit the Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time. The application for Graduate Admission to the University is available online through CSU Mentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the School Psychology program must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded from the College of Education website (www.ced.csulb.edu/graduate/application-packets). The program application does not require a set of transcripts. After an initial paper screening, select applicants are invited for an interview with program faculty.

Requirements

1. Complete the following core courses (24 units):
   - ETEC 510 Foundations of Educational Technology and Media (3)
     Prerequisite: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
   - ETEC 523 Information and Digital Literacies (3)
     Prerequisites: ETEC 444 or equivalent experience satisfying California Level I computer technology standard.
   - ETEC 525 Digital Culture and Society (3)
     Prerequisites: None
   - ETEC 530 Leadership in Technology and Media (3)
     Prerequisites: ETEC 523, or consent of the instructor.
   - ETEC 540 Organization of Resources (3)
     Prerequisites: None
   - ETEC 551 Education and the Internet (3)
     Prerequisites: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
   - ETEC 570 E-Learning Design and Development (3)
     Prerequisite: ETEC 523 or consent of instructor.
   - ELIB 530A Library Media Materials for Elementary Grades (K-5) (3)
     Prerequisites: None
   - ETEC 580 Field Experience in Educational Technology (3)
     Prerequisites: ETEC 523 and either ETEC 530, EDP 520 or EDP 595.

Counseling

- COUN 191 Career and Personal Explorations
- COUN 360 Life and Career Decisions
- COUN 506 Counseling in School Settings
- COUN 508A Family Systems Applied to Aging and Lifespan Development
- COUN 508B Family Systems Methods
- COUN 510 Law and Ethics for Counselors
- COUN 511 Counseling the Alcohol/Chemically Dependent Person
- COUN 512 Child and Spousal/Partner Abuse
- COUN 513 Introduction to Clinical Interviewing
- COUN 514 Medication and Counseling
- COUN 515 Counseling Theories
- COUN 522 Counseling Methods and Techniques
- COUN 543 Human Sexuality Counseling
- COUN 555 Cross-Cultural Counseling
- COUN 556 Counseling Children and Adolescents
- COUN 557 Counseling Couples
- COUN 601 Trauma and Grief Counseling
- COUN 606 Current Issues in Professional School Counseling
- COUN 607 School Counseling Practicum
- COUN 608 Seminar in Marriage and Family Therapy
- COUN 609 MFT Practicum
- COUN 638 Group Counseling
- COUN 643A,D Counseling Field Work
- COUN 644A,D Advanced Counseling Field Work
- COUN 680 Family Trauma Treatment Seminar
- COUN 681 Spirituality and Counseling
- COUN 682 Gestalt Psychotherapy
- COUN 683 Cognitive Behavior Therapy
- COUN 684 Advanced Clinical Case Formulation Seminar
- COUN 685 Community Mental Health Counseling
**COUN 690** Sem in School Counseling Supervision: Theory & Practice  
**COUN 692** Special Topics in Counseling  
**COUN 695C** Integrative Seminar in Professional School Counseling

### Educational Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EDP 301</td>
<td>Child Development and Learning; A Cross-Cultural Perspective</td>
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<tr>
<td>EDP 302</td>
<td>Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective</td>
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<td>EDP 305</td>
<td>Educational Psychology</td>
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<tr>
<td>EDP 390</td>
<td>Selected Topics in Education</td>
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<td>EDP 400</td>
<td>Introduction to Educational Research</td>
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<td>EDP 405</td>
<td>Positive Strategies for Classroom Management</td>
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<tr>
<td>EDP 419</td>
<td>Educational Statistics</td>
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<tr>
<td>EDP 490</td>
<td>Special Topics in Educational Psychology</td>
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<tr>
<td>EDP 492</td>
<td>Internships in the Human Services</td>
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<td>EDP 497</td>
<td>Independent Study</td>
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<tr>
<td>EDP 517</td>
<td>Counseling and Mental Health in Schools</td>
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<tr>
<td>EDP 518</td>
<td>Crisis Response</td>
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<tr>
<td>EDP 519</td>
<td>Quantitative Educational Data Analysis I</td>
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<tr>
<td>EDP 520</td>
<td>Quantitative Research Methods in Education</td>
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<tr>
<td>EDP 524A</td>
<td>Psychoeducational Assessment of Diverse Student Populations</td>
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<td>EDP 524B</td>
<td>Psychoeducational Assessment: Clinical Applications</td>
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<tr>
<td>EDP 524C</td>
<td>Psychoeducational Assessment II: Clinical Applications</td>
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<tr>
<td>EDP 527</td>
<td>Advanced Assessment for intervention.</td>
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<td>EDP 528</td>
<td>Introduction to School Psychology</td>
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<tr>
<td>EDP 536</td>
<td>Collaborative Consultation in the Schools</td>
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<tr>
<td>EDP 541</td>
<td>Seminar in Educational Measurement and Assessment</td>
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<tr>
<td>EDP 560</td>
<td>Functional Behavior Assessment and Positive Behavior Support</td>
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<tr>
<td>EDP 579</td>
<td>Curriculum-Based Assessments &amp; Academic Interventions</td>
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<tr>
<td>EDP 590</td>
<td>Selected Topics in Educational Psychology</td>
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<tr>
<td>EDP 595</td>
<td>Qualitative Research Methods in Education</td>
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<td>EDP 596</td>
<td>Program Evaluation in Education</td>
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<td>EDP 603</td>
<td>Developmental Risk and Resilience</td>
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<tr>
<td>EDP 604</td>
<td>Seminar in Human Development</td>
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<tr>
<td>EDP 605</td>
<td>Theories of Learning, Cognition, Motivation, and Social Development</td>
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<tr>
<td>EDP 619</td>
<td>Quantitative Educational Data Analysis II</td>
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<tr>
<td>EDP 641A,B</td>
<td>B School Psychology Practicum</td>
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<tr>
<td>EDP 642A,B</td>
<td>Field Work - School Psychology</td>
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<tr>
<td>EDP 643</td>
<td>Systemic Approaches to Interventions in Schools</td>
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### Research

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<td>Qualitative Research Methods in Education</td>
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<tr>
<td>EDP 619</td>
<td>Quantitative Educational Data Analysis II</td>
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<tr>
<td>EDP 696</td>
<td>Thesis Study: Plan, Development and Organizing Aspects</td>
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<tr>
<td>EDP 697</td>
<td>Directed Research</td>
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<tr>
<td>EDP 698</td>
<td>Thesis</td>
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<tr>
<td>EDP 699</td>
<td>Project</td>
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### Educational Technology and Media Leadership

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ETEC 110</td>
<td>Introduction to Computers as Tools</td>
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<tr>
<td>ETEC 171</td>
<td>Critical Thinking Using Computer Technology</td>
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<tr>
<td>ETEC 411</td>
<td>Assessment of Computer Technology Competency, Level I</td>
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<tr>
<td>ETEC 435</td>
<td>Accessible Electronic and Information Technologies</td>
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<tr>
<td>ETEC 444</td>
<td>Computer Technology in Education, Level I</td>
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<tr>
<td>ETEC 450</td>
<td>Introduction to Hybrid and Online Teaching and Learning</td>
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<tr>
<td>ETEC 510</td>
<td>Foundations of Educational Technology and Media</td>
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<td>ETEC 523</td>
<td>Information and Digital Literacies</td>
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<td>ETEC 525</td>
<td>Digital Culture and Society</td>
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<td>Leadership in Technology and Media</td>
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<td>ETEC 535</td>
<td>Accessible Electronic and Information Technologies</td>
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<td>ETEC 540</td>
<td>Organization of Resources</td>
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<td>ETEC 545</td>
<td>Reading for Leisure and Learning</td>
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<td>ETEC 551</td>
<td>Education and the Internet</td>
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<td>ETEC 570</td>
<td>E-Learning Design and Development</td>
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<td>ETEC 580</td>
<td>Field Experience in Educational Technology</td>
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<td>ETEC 695</td>
<td>Seminar in Educational Technology</td>
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### Foundations of Education

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<th>Course Code</th>
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<tbody>
<tr>
<td>EDP 432</td>
<td>Social and Cultural Diversity in Educational Settings</td>
</tr>
<tr>
<td>EDP 485</td>
<td>Theoretical Foundations of Language Minority Education</td>
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<tr>
<td>EDP 492</td>
<td>Internships in the Human Services</td>
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<tr>
<td>SCAE 550</td>
<td>Foundations of Social and Cultural Analysis of Education</td>
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<tr>
<td>SCAE 551</td>
<td>Critical Pedagogies</td>
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<tr>
<td>SCAE 560</td>
<td>History of Social and Educational (In)equality</td>
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### Education Specialist (Special Education)

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<tbody>
<tr>
<td>EDP 405</td>
<td>Positive Strategies for Classroom Management</td>
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<tr>
<td>EDS 303</td>
<td>Preparing to Teach Special Populations in the General Education Classroom</td>
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<tr>
<td>EDS 350</td>
<td>Introduction to Teaching the Exceptional Individual</td>
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<tr>
<td>EDS 355A</td>
<td>Collaborative Models of Inclusive Education: Partnerships and Strategies for Teaching All Students in</td>
</tr>
</tbody>
</table>
Elementary Schools
EDSP 454 Supporting the Academic and Language Development of English Learners
EDSP 480 Foundations of Inclusive Education in a Diverse Society
EDSP 525 Advocacy and the Educational Context of Disability
EDSP 534 Collaboration and Transition in Special Education
EDSP 535 Collaborative Partnerships and Effective Communication in School Settings
EDSP 542 Technology in Special Education
EDSP 546 A, B Induction in Special Education
EDSP 550 Emerging Perspectives in Special Education
EDSP 564 Assessment and Evaluation of Students with Disabilities
EDSP 570 Community Inclusion
EDSP 577 Instructional Methods: Mild/Moderate
EDSP 578 Instructional Methods: Moderate/Severe
EDSP 582 Research in Special Education
EDSP 586 Education Specialist Intern Supervision
EDSP 587 A,B Advanced Field Study Mild/Moderate
EDSP 588 A,B Advanced Field Study Moderate/Severe
EDSP 695S Seminar in Special Education

Counseling Courses (COUN)

LOWER DIVISION

191. Career and Personal Explorations (3)
Prerequisite or Corequisite: Any foundation (G.E. Category A1, A2, A3, or B2) class.
Designed for, but not limited to, entering and undeclared students.
Exploration of issues, topics and tasks related to personal, educational and career choices. Includes educational and career planning, exploration of personal characteristics and individual differences, life and work values and interests, decision making, goal setting, and job/career search preparation.
Not open for credit to students with credit in EDP 191 or EDP 360/ COUN 360.

UPPER DIVISION

360. Life and Career Decisions (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Conducting in-depth self analysis designed to facilitate career and personal choices. How education and personal life experiences influence career and life decisions. Career development theories and assessments with applications to student career development and choices. Sound decision-making and goal-setting processes.
Not open for credit to students with credit in EDP 360. Letter grade only (A-F).

GRADUATE LEVEL

506. Counseling in School Settings (3)
Prerequisite: Official admission to the School Counseling Program.
Overview of issues related to school counseling and the role of the professional school counselor. Includes a practicum component designed to develop counseling skills and promote helping relationships. Field experiences are required. School Counseling students are expected to take this course in their first semester in the program.
Not open for credit to students with credit in EDP 506. Letter grade only (A-F).

507. Career and Academic Counseling in K-12 Settings (3)
Prerequisite: COUN 506.
Emphasis on career development theory and practice, the world of work, post-school planning, and academic counseling in K-12 settings. Application of theory through culturally sensitive interventions.
Letter grade only (A-F).

508A. Family Systems Applied to Aging and Lifespan Development (3)
Family systems assessment and counseling applied to lifespan development theories.
Not open for credit to students with credit in EDP 508A. Letter grade only (A-F).

508B. Family Systems Methods (3)
Prerequisite: COUN 508A or consent of instructor.
The application and practice of family systems therapeutic methods.
Not open for credit to students with credit in EDP 508B. Letter grade only (A-F).

510. Law and Ethics for Counselors (3)
An introduction to professional identity as counselors and examination of laws and ethics related to the counseling profession and its specializations (MFT, career/vocational rehabilitation, student development and administration, and school counseling).
Not open for credit to students with credit in EDP 510. Letter grade only (A-F).

511. Counseling the Alcohol/ Chemically Dependent Person (2)
Survey of the theories, etiologies, and major treatment approaches for counseling and preventing alcohol and chemical dependency, and the role of family and community resources, referrals, and prevention programs.
Not open for credit to students with credit in EDP 511. Letter grade only (A-F).

512. Child and Spousal/Partner Abuse (1)
Child and spousal/partner abuse assessment indicators, laws, community resources, mandatory reporting requirements for child abuse and spousal/partner violence, assessment, detection, and interventions for the child, family, spouse/partner, and the offender.
Designed for licensure requirements for mental health practitioners and graduate students.
Not open for credit to students with credit in EDP 512. Letter grade only (A-F).

513. Introduction to Clinical Interviewing (3)
A foundation course that provides training in core interviewing skills including active listening, case exploration, goal setting, conducting a mental status exam, and assessing for self-harm.
Not open for credit to students with credit in EDP 513. Letter grade only (A-F).

514. Medication and Counseling (2)
Prerequisites: COUN 513 or consent of instructor.
An examination of the categories of psychotropic medications: antidepressants including antipsychotics, anxiolytics, and mood stabilizers. Major side-effects of these medications and a brief overview of their medical management are reviewed. Herbal alternatives to pharmacologic agents will be explored. Identification of information resources for counselors and clients.
Not open for credit to students with credit in EDP 514. Letter grade only (A-F).
515. Counseling Theories (3)
Prerequisite: COUN 513.
Major counseling theories examined and the competencies of each developed for use in helping relationships.
Not open for credit to students with credit in EDP 515. Letter grade only (A-F).

522. Counseling Methods and Techniques (3)
Prerequisites/Corequisites: COUN 513, COUN 515.
An applied course which provides practice in the methods and techniques of the major theoretical approaches employed in counseling.
Not open for credit to students with credit in EDP 522. Letter grade only (A-F).

543. Human Sexuality Counseling (3)
Prerequisite: COUN 515.
Training in human sexuality education, counseling, and therapy. An examination of personal attitudes and values. The study of the physiological, psychological, and sociocultural variables associated with sexual behavior, sexual identity, and sexual disorders. For MFT certification only.
Not open for credit to students with credit in EDP 543. Letter grade only (A-F).

555. Cross-Cultural Counseling (3)
Prerequisites: COUN 510, COUN 513, COUN 515; COUN 506 for School Counseling Option, SDHE 538 for SDHE Option, or their equivalent upon approval of the instructor.
Study of U.S. and international cultural factors, perspectives and personal and societal values that affect the counseling relationship, methods, and outcomes. These factors include historical, geographical, socio-psychological, educational and counseling factors from various cultural groups that students will encounter in their professional settings.
Not open for credit to students with credit in EDP 555. Letter grade only (A-F).

556. Counseling Children and Adolescents (3)
Prerequisites: COUN 515 and COUN 522, or consent of instructor.
Theories and application of the methods and techniques of the major theoretical approaches employed in counseling children and adolescents.
Not open for credit to students with credit in EDP 556.

557. Counseling Couples (3)
Prerequisites: COUN 515.
Couple development theories, issues, and practices pertaining to counseling couples.
Not open for credit to students with credit in EDP 557. Letter grade only (A-F).

559. Play and Art Therapy for Children/Adolescents (3)
Prerequisites: COUN 508A and COUN 556 or consent of instructor.
Experiential survey and the practice of play and art techniques employed in therapy as applied to theoretical orientations and problematic behavior.
Not open for credit to students with credit in EDP 559. Letter grade only (A-F).

601. Trauma and Grief Counseling (3)
Prerequisites: COUN 556 or consent of instructor. Required course for students in the Marriage and Family Therapy Program and a recommended course for graduate students in the other Counseling Programs.
Overview of developmentally informed models of trauma response, identifying and assessing problematic responses to trauma and loss, and guidelines for working with traumatized children, adolescents and families in various settings. Current treatment approaches of forms of post-traumatic distress and traumatic bereavement.
Not open for credit to students with credit in EDP 601. Letter grade only (A-F).

606. Current Issues in Professional School Counseling (3)
Prerequisite: COUN 506.
A variety of current issues in school counseling presented in learning modules. Topics include assessment, education of students with disabilities, school violence prevention, crisis counseling, comprehensive counseling plans, and classroom management.
Letter grading only (A-F).

607. School Counseling Practicum (3)
Prerequisites: COUN 506, COUN 515.
Practical application of counseling theory to work with children and adolescents. Supervised counseling, consultation, and case management experiences conducted in educational psychology/counseling clinic and in school settings.
Not open for credit to students with credit in EDP 607. Letter grade only (A-F). Course fee may be required.

608. Seminar in Marriage and Family Therapy (3)
Prerequisites: COUN 510, COUN 511, COUN 512, COUN 513, COUN 515, COUN 522. Recommended: COUN 556.
Theories, research, treatment planning, and therapeutic methods of MFT counseling utilizing major psychotherapeutic approaches regarding assessment, diagnosis, and treatment of various mental health problems.
Not open for credit to students with credit in EDP 608. Letter grade only (A-F).

609. MFT Practicum (4)
Prerequisites: COUN 510, COUN 511, COUN 512, COUN 513, COUN 515, COUN 522, and COUN 608.
Practicum application submitted no later than March 1 for the following fall semester, and October 1 for the spring semester. MFT students will provide counseling services to clients at the CED Community Clinic, receive live supervision from MFT faculty members, and participate in a practicum program at an approved off-campus agency.
Not open for credit to students with credit in EDP 609. Letter grade only (A-F). Course fee may be required.

638. Group Counseling (3)
Prerequisites: Admission to the MS in Counseling, and/or PPS School Counseling Credential, or School Psychology Program, COUN 510, COUN 513, COUN 515 or equivalent upon approval of instructor.
Review of theories and applications of small group processes in guidance and counseling. Laboratory practice is provided and issues and roles relating to the selection of participants, leadership, interaction methods, problem-solving, and evaluation are examined. Students will learn how to proficiently facilitate the group process and address multicultural issues in group settings.
Not open for credit to students with credit in EDP 638. Letter grade only (A-F).

643A,D. Counseling Field Work (3)
A. School Counseling (3)
Prerequisites: COUN 607, Certificate of Clearance, EDP 536 (must be taken concurrently with either COUN 643A or COUN 644A).
Practical experiences in counseling and guidance activities under supervision in approved school settings (total of 300 hours). Emphasis on personal and professional development as school counselors.
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Credit/No Credit grading only. Not open for credit to students with credit in EDP 643A. Course fee may be required.
D. Marriage and Family Therapy (3)
Prerequisites: COUN 608, COUN 609.
Practical required experiences of 150 hours in counseling activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following summer or fall semester and October 1 for the spring semester. Credit/No Credit grading only. Not open for credit to students with credit in EDP 644D. Course fee may be required.

644A,D. Advanced Counseling Field Work (3)

A. Advanced School Counseling (3)
Prerequisites: COUN 507 (or EDP 530 or EDP 531 for students who have advanced to candidacy prior to Fall 2005), COUN 638, COUN 643A; EDP 536 (must be taken concurrently with either COUN 643A or COUN 644A); pass Basic Skills Requirement.
Continued practical experiences in counseling and guidance activities under supervision in approved school settings (total of 300 hours). Emphasis on personal and professional development as school counselors.
Applications for field work must be made no later than March 1 for the following summer or fall semester, and October 1 for the spring semester. Credit/No Credit grading only. Not open for credit to students with credit in EDP 644A. Course fee may be required.

D. Marriage and Family Therapy (3)
Prerequisites: COUN 638, COUN 643D.
Continued practical required experiences of 150 hours in counseling activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following summer or fall semester and October 1 for the spring semester. Credit/No Credit grading only. Not open for credit to students with credit in EDP 644D. Course fee may be required.

680. Family Trauma Treatment Seminar (3)
Hands-on training in evidence-based treatment for families contending with trauma or loss. Readings, lectures, and in-class demonstrations and practice will focus on family assessment, goal-setting, narrative sharing, and family training on resilience-enhancing skills.
Letter grade only (A-F).

681. Spirituality and Counseling (1)
Experiential seminar on spiritual issues in counseling with an emphasis on helping future counselors increase their awareness of spiritual diversity to help them become better counselors.
Letter grade only (A-F).

682. Gestalt Psychotherapy (2)
Prerequisite: COUN 515 or consent of instructor.
This seminar is designed to be an experiential learning process of Gestalt Therapy. Readings, lectures, in-class demonstrations, and practice will provide grounding in Gestalt theory, assessment, techniques, and treatment planning.
Letter grade only (A-F).

683. Cognitive Behavioral Therapy (2)
Prerequisite: COUN 515 or consent of instructor.
Students will be trained on conducting evidence-based treatment for individuals utilizing Cognitive Behavioral Therapy (CBT). Readings, lectures, in-class demonstrations, and practice will provide grounding in CBT theory, assessment, techniques, and treatment planning.
Letter grade only (A-F).

684. Advanced Clinical Case Formulation Seminar (1)
Advanced seminar on clinical case formulation with an emphasis on helping counselors in practicum and fieldwork improve their understanding of underlying issues that impact clients.
Letter grade only (A-F).

685. Community Mental Health Counseling (1)
Advanced seminar on community mental health counseling with an emphasis on helping counselors gain skills required in contemporary community mental health settings, including recovery-oriented treatment for severe mental illness, case management, client advocacy, and local community service resources.
Letter grade only (A-F).

690. Seminar in School Counseling Supervision: Theory and Practice (3)
Prerequisite: Consent of instructor.
Focus on models and methods of school counseling supervision. Designed to prepare school counselors to be effective site supervisors for school counseling field work students.
Open to advanced students in the School Counseling Program as well as practicing school counselors. Letter grade only (A-F).

692. Selected Topics in Counseling (1-6)
Advanced study of special topics in the field of counseling. Continuing education and non-degree students may enroll for units subject to suitable changes in course content.
May be repeated to a maximum of 12 units with different topics, which includes previously earned credit in EDP 692. Topics announced in the CSULB or CCPE Schedule of Classes.
A. Introduction to Psychodrama
B. Advanced Psychodrama
Prerequisites: COUN 692A or consent of instructor.

695C. Integrative Seminar in Professional School Counseling (3)
Prerequisites: Advancement to candidacy; COUN 507 (or EDP 530 or EDP 531 for students who have advanced to candidacy prior to Fall 2005), COUN 555, COUN 638; EDP 596; and permission to enroll from School Counseling Program Coordinator. Prerequisite/Corequisite: COUN 643A.
Designed to support integration and synthesis of knowledge, skills, and attitudes learned and developed during the school counseling program, and to facilitate the transition from graduate student to counseling professional and lifelong learner.
Not open for credit to students with credit in EDP 695C. Letter grade only (A-F).

Educational Psychology Courses (EDP)

UPPER DIVISION

301. Child Development and Learning: A Cross-Cultural Perspective (3)
Explores the physical, cognitive, communicative/linguistic, and socio-emotional development of the child from the prenatal through adolescent period across diverse cultures with an emphasis on the learning process and developmentally appropriate teaching practices.

302. Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective (3)
Explores social, emotional, cognitive, and physical development in early and late adolescent across cultures with an emphasis on the learning process and developmentally appropriate teaching practices.

305. Educational Psychology (3)
Overview of Educational Psychology. Analysis of theories of learning as they relate to intellectual, social, and personal development of diverse learners. Emphasis on learning, motivation, and development with attention to educational practices that foster critical thinking, problem solving, and performance skills.
390. Selected Topics in Education (1-3)
Orientation to and exploration of topics relevant to the college student as a learner-scholar and decision-maker within the changing campus, community and societal milieu. Lectures, discussion, field study. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

400. Introduction to Educational Research (3)
Explores a wide range of research methods used in education. Topics include traditions, theories, approaches, and applications of qualitative and quantitative research methods. Letter grade only (A-F). May not be used as a substitute for EDP 419.

405. Positive Strategies for Classroom Management (3)
Models and strategies of classroom management to promote student prosocial behaviors and academic growth. Includes information regarding school-wide models of positive behavior support and classroom interventions to support positive behaviors in both general and special education programs. Letter grade only (A-F). Course fee may be required.

419. Educational Statistics (3)
Prerequisite: Satisfactory completion of an undergraduate mathematics course suitable for general education matht credit and, if required by the major, a lower-division statistics course. Introduction to descriptive and inferential statistical methods with application to educational research problems. Emphasis on understanding statistical concepts, computation skills, and the use of computer programs in data analysis. Letter grade only (A-F). Not open for credit to students with credit in LING 485.

432. Social and Cultural Diversity in Educational Settings (3)
Examination of personal attitudes toward distinct groups of people. Study of historical and structural factors that either promote or diminish equal human worth and either empower or oppress people based on class, race/ethnicity, gender, sexual orientation, ability, language, or religion.

485. Theoretical Foundations of Language Minority Education (3)
Introduction to theoretical foundations of language minority instruction. Background on the historical and political context of the development of educational language policies. Models of bilingual and English language development education. Letter grade only (A-F). Not open for credit to students with credit in LING 485.

490. Selected Topics in Educational Psychology (1-6)
Prerequisite: Consent of instructor. Topics of current interest in educational psychology selected for intensive study. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

492. Internships in the Human Services (3)
Prerequisite: Consent of instructor. Students are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. The required 15 hour seminar will focus on personal values, strengths and limitations of published, norm-referenced tests of achievement, and adults and children, be observed for proficiency, and learn to apply these results to making instructional placement and eligibility decisions. A minimum of 120 hours field experience is required for the semester.

497. Independent Study (1-3)
Prerequisites: Consent of instructor and department chair. Independent study undertaken under the supervision of a faculty member. May be repeated to a maximum of 6 units, with no more than 3 units applicable to credential or major requirement.

GRADUATE LEVEL

517. Counseling and Mental Health in Schools (3)
Prerequisites: Admission to School Psychology program; concurrent enrollment in EDP 641A or EDP 641B; or consent of instructor. Theory, research, and techniques of counseling and mental health service delivery used in individual and group counseling. Not open for credit to students with credit in EDP 631. Letter grade only (A-F). Course fee may be required.

518. School Crisis Response (3)
Prerequisite: EDP 528 or consent of instructor. Students will learn about the impact of school crises on children and school communities, and how to prepare and respond to these events, including trauma screening and triage, threat assessment, suicide prevention, and dealing with death at schools. Letter grade only (A-F).

519. Quantitative Educational Data Analysis I (3)
Prerequisites: EDP 419 or equivalent. An advanced educational univariate data analysis course. Hypothesis testing using analysis of variance, analysis of covariance, multiple regression, and path analysis. Letter grade only (A-F).

520. Quantitative Research Methods in Education (3)
Prerequisites: For majors in MA in Educational Psychology: EDP 419 or equivalent. For other majors: EDP 400 or equivalent. Examination and application of quantitative educational research methodology including research designs, sampling methods, inferential statistics and hypothesis testing, and the structure and content of a research proposal. Letter grade only (A-F).

524A. Psychoeducational Assessment of Diverse Student Populations (3)
Prerequisite/Corequisite: EDP 528; Corequisites: EDP 524B and admittance to the School Psychology Program. By applying theories of cognition and their implications for understanding learning, development, and diagnosis of disability in diverse student populations. Emphasis is on the psychometric and socio-cultural strengths and limitations of published, norm-referenced tests of cognitive and academic functioning. Letter grade only (A-F).

524B. Psychoeducational Assessment: Clinical Applications (2)
Prerequisite/Corequisite: EDP 528; Corequisites: EDP 524A and admittance to the School Psychology Program. Students will practice administering tests to adults and children, be observed for proficiency, and learn to apply these results to making instructional placement and eligibility decisions. Letter grade only (A-F).

ED P 524C. Psychoeducational Assessment II: Clinical Applications (2)
Prerequisite(s): ED P 528; ED P 524A; ED P 524B; and admittance to the School Psychology Program. Course Description: Application of psychoeducational assessment practices within a clinical setting with school-age youth from diverse backgrounds. Advanced training in selection, administration, and interpretation of individually-administered tests of achievement, cognition, and psychological processing. Letter grade only (A-F).

527. Advanced Assessment for Intervention (3)
Prerequisites: EDP 579. Corequisite: EDP 642A. Advanced assessment and intervention with children ages 3-5, secondary students, and students with moderate to severe...
disabilities. Topics include identifying useful and appropriate assessments, developing and implementing empirically-validated interventions, and issues and challenges in serving these specific populations.

Letter grade only (A-F). Course fee may be required.

528. Introduction to School Psychology (3)
Prerequisite: Admission to the School Psychology program.
Introduction to the practice of school psychology including history of the field, school psychologist roles and functions, and common service delivery models. Also included are federal and state laws, ethical standards, and literature and research informing the practice of school psychology.

Letter grade only (A-F). Course fee may be required.

536. Collaborative Consultation in the Schools (3)
Prerequisites/Corequisites: COUN 643A, COUN 644A, EDP 642A, EDP 642B, or Field Placement in Special Education.
Theory and practice of collaborative consultation in the schools. Models, roles and skills will be discussed, rehearsed during in-class simulations, and practiced in field settings. Field experience required.

Letter grade only (A-F). Course fee may be required.

541. Seminar in Educational Measurement and Assessment (3)
Prerequisites: EDP 419, EDP 519, and EDP 520, or equivalent. Advanced studies examining the reliability and validity of test scores, item response theory, and other statistical approaches for the improvement of educational testing. Practical application of administration and interpretation of assessment outcomes.

Letter grade only (A-F).

560. Functional Behavior Assessment and Positive Behavior Support (3)
Prerequisite: EDP 405.
Designing, implementing, monitoring, and evaluating comprehensive behavior support plans based on functional behavior assessment data. Developmental and mental health factors impacting the behavior of students with autism, emotional disturbance, and severe cognitive disabilities are included.

Letter grade only (A-F). Course fee may be required.

579. Curriculum-Based Assessments and Academic Interventions (4)
Prerequisites: Admission to the school psychology program and EDP 524A and EDP 524B.
Evidence-based interventions for diverse learners, including students with disabilities, elementary and secondary students, and English Language Learners. Theories and application of curriculum-based assessments and data-based intervention development, implementation and evaluation.

Letter grade only (A-F). (3 hours seminar, 3 hours laboratory)

590. Selected Topics in Educational Psychology (1-3)
Prerequisite: Consent of instructor.
Advanced study of special topics in education and counseling. A student may enroll for 1-3 units to a maximum of 6 units for certificate and degree purposes, subject to suitable changes in course content. Non-degree and non-certificate students may enroll for additional units subject to suitable change in course content.

Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters or different topics in the same semester. Topics announced in the Schedule of Classes.

595. Qualitative Research Methods in Education (3)
Prerequisites: EDP 400 or equivalent.
Examination, analysis, and application of qualitative research methodology including various types of methods, designs, data collection strategies, data analysis and presentation of findings techniques; qualitative research study construction.

Letter grade only (A-F).

596. Program Evaluation in Education (3)
Prerequisites: For majors in Educational Psychology: EDP 419 and EDP 520, or equivalent. For other majors: EDP 400 and EDP 520, or equivalent.
Identifying and comparing various approaches to program evaluation in educational settings including needs assessments; selecting evaluation questions and criteria; collecting, analyzing, and interpreting qualitative and quantitative evaluation data; and the mechanics and process of developing an evaluation plan.

Letter grade only (A-F).

603. Developmental Risk and Resilience (3)
Prerequisite: EDP 301 or EDP 302.
Examines psychological disorders, such as autism, attention deficit disorder, conduct disorder, depression, anorexia, and selective mutism from a developmental perspective. Major topics include: contrasting psychopathology models; environmental/genetic/neurobiological factors, classification and epidemiology; scientifically-based interventions and expected outcomes; and developmental resilience.

Letter grade only (A-F).

604. Seminar in Human Development (3)
Prerequisites: EDP 301 or EDP 302, and EDP 400 or EDP 419.
Theories and issues in developmental psychology, cognitive, linguistic, perceptual, biological, psychomotor, social and emotional development; nature-nurture and individual differences.

Letter grade only (A-F).

605. Theories of Learning, Cognition, Motivation, and Social Development (3)
Prerequisite: EDP 301 or EDP 302.
Analysis of current theory and research in the areas of student learning, cognition, motivation, and social development and their application in maximizing learning of all students.

Letter grade only (A-F).

619. Quantitative Educational Data Analysis II (3)
Prerequisite: EDP 519 or equivalent.
Advanced multivariate statistical analysis course: multivariate analysis of variance, discriminant function analysis, canonical correlation, exploratory factor analysis, and structural equation modeling.

Approximately 20 hours of applied work in approved educational settings is required. Letter grade only (A-F)

641A. School Psychology Practicum (2)
Prerequisites: Admission to school psychology program, EDP 524A, EDP 524B, and EDP 528. Prerequisite/Corequisite: EDP 579.
Seminar and completion of 150 contiguous hours of supervised field placement for a minimum of one and maximum of 5 full days per week, with a minimum of 4 weeks and maximum of 1 year at no more than two sites and with two supervisors.

Credit/No Credit grading only. Course fee may be required.

641B. School Psychology Practicum (2)
Prerequisites: Admission to the school psychology program, EDP 524A, EDP 524B, EDP 528, and EDP 641A.
Seminar and completion of 150 contiguous hours of supervised field placement for a minimum of one and maximum of 5 full days per week, with a minimum of 4 weeks and maximum of 1 year at no more than two sites and with two supervisors.

Credit/No Credit grading only. Course fee may be required.
642A. Field Work I - School Psychology (1-3)
Prerequisites: EDP 579, EDP 641B; concurrent enrollment in EDP 560; approval of program coordinator.
Students complete 200 hours of supervised school psychology fieldwork per unit for a maximum of 3 units (600 Hours). Placements should include at least 300 hours in a setting that serves at least 50% culturally and linguistically diverse students.
Letter grade only (A-F). May be repeated to a maximum of 3 units in different semesters. Course fee may be required.

642B. Field Work II - School Psychology (1-3)
Prerequisites: EDP 579, EDP 641A; concurrent enrollment in EDP 518; approval of program coordinator.
Students complete 200 hours of supervised school psychology fieldwork per unit for a maximum of 3 units (600 Hours). Placements should include at least 300 hours in a setting that serves at least 50% culturally and linguistically diverse students.
Letter grade only (A-F). May be repeated to a maximum of 3 units in different semesters. Course fee may be required.

643. Systemic Approaches to Interventions in Schools (3)
Prerequisite: EDP 579 Curriculum based assessment and academic interventions
Applying implementation science to promote or improve implementation of multi-tiered systems of support (MTSS). Various models of systems change will be reviewed. Each student will engage in a field project to advance one or more components of MTSS.
Letter grade only [A-F].

696. Thesis Study: Plan Development and Organizing Aspects (3)
Prerequisites: EDP 400 or EDP 419 and EDP 520 or EDP 595.
Designed for students planning to write a thesis. Form a thesis committee by midterm in the course. Accomplish a completed draft of the thesis plan by the end of the term.

697. Directed Research (1-3)
Prerequisites: Consent of instructor, department chair, and associate dean.
A student may enroll for 1-3 units to a maximum of 6 units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment including an approved directed research proposal must be made to the Office of Graduate Studies and Research by March 1 for the fall semester or October 1 for spring.
Letter grade only (A-F). May be repeated to a maximum of 6 units, with different topics in different semesters or with different topics in the same semester.

698. Thesis (3)
Prerequisites: Advancement to candidacy, EDP 519 or EDP 520 or EDP 595 or EDP 696, approval by director, department chair and associate dean.
Planning, preparation and completion of a thesis under supervision of a faculty committee.
Must be taken for six units. Application for enrollment must be made to the Graduate Studies Office by March 1 for the fall semester or October 1 for the spring semester. Letter grade only (A-F).

699. Project (3)
Prerequisites: Advancement to candidacy, approval of graduate advisor, and written application to the College of Education Graduate Office.
Information and discussion related to the development of master’s degree projects in Educational Psychology, School Administration, Counseling and related fields.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Project application to be made to the College of Education Graduate Office by by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.

Education Specialist Courses (EDSP)

303. Preparing to Teach Special Populations in the General Education Classroom (1)
Corequisites: EDEL 380.
Emphasis on roles and responsibilities of the general education teacher in the Individualized Education Program (IEP) process. Relevant state and federal laws pertaining to the education of exceptional populations.
Letter grade only (A-F).

350. Introduction to Teaching the Exceptional Individual (3)
Characteristics and etiology of different categories of disability are addressed. Future educators and other school professionals will learn about history, legislation, and processes pertaining to educating students with exceptionalities.
Letter grade only (A-F). Two 2-hour fieldwork observations of individuals with exceptionalities in educational settings are required. Course fee may be required. (Field work)

355A. Collaborative Models of Inclusive Education: Partnerships and Strategies for Teaching All Students in Elementary Schools (3)
Overview of collaborative educational models; family, school, community partnership models; access, equity, historical, legal, social, political perspectives for diverse students with special needs; roles and responsibilities of the general educator as a team member at the elementary level; Individualized Education Program process.
Letter grade only (A-F). Not open for credit to students with credit in EDS 355. Course fee may be required.

355B. Collaborative Models of Inclusive Education: Partnerships and Strategies for Teaching All Students in Secondary Schools (3)
Overview of collaborative educational models; family, school, community partnership models; access, equity, historical, legal, social, political perspectives for diverse students with special needs; roles and responsibilities of the general educator as a team member at the secondary level; Individualized Education Program process.
Letter grade only (A-F).

454. Supporting the Academic and Language Development of English Learners (3)
Prerequisite: Consent of instructor.
Addresses typical and atypical language development and acquisition in school-aged children from non-English speaking backgrounds. Focus will be on assessment and instruction for English Learners emphasizing sheltered instruction. Typical language development and language disabilities are addressed.
Letter grade only (A-F).

480. Foundations of Inclusive Education in a Diverse Society: Philosophical and Historical Perspectives and Legal Mandates (3)
Prerequisite: Admission to Education Specialist Credential Program.
Philosophical and historical foundations of special education in a diverse society. Discussion of educational theories, legal mandates, and models for serving students with special needs in inclusive settings, with particular focus on students who are culturally and linguistically diverse.
Letter grade only (A-F). Course fee may be required.

525. Advocacy and the Educational Context of Disability (3)
Prerequisite: Acceptance in the Master of Science in Special Education Program or consent of instructor.
Effective advocacy for fundamental change in educational settings to improve the lives of persons with disabilities from diverse backgrounds grounded in the literature with an emphasis on understanding the
534. Collaboration and Transition in Special Education (3)
Prerequisites: Full admittance to Education Specialist Credential Program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Reflected on evidence of practice through collaboration and teacher action research. Induction and formative assessment of candidates clearing the Education Specialist Credential. Development of Individualized Induction Plan and supervision in field.
Application should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission
Letter grade only (A-F).
535. Collaborative Partnerships and Effective Communication in School Settings (3)
Prerequisites: Acceptance in Education Specialist Clear Credential Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Reflected on evidence of practice through collaboration and effectively communicating with educators, community members, families, and individuals with disabilities. Examination of major issues and approaches to promoting successful transition of youth with disabilities into, through, and beyond school.
Letter grade only (A-F).
542. Technology in Special Education (3)
Prerequisites: Acceptance in Education Specialist Clear Credential Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Overview of Assistive Technology and Augmentative Communication for individuals with exceptional needs. Examination of legislation, devices, and services using assistive technology and augmentative communication. Introduction to assistive technology assessment and advanced development of Computer Assisted Instruction.
Letter grade only (A-F).
546A Induction in Special Education (2)
Prerequisite: Acceptance into Masters Program in Special Education or consent of instructor.
Reflection on evidence of practice through collaboration and teacher action research. Induction and formative assessment of candidates clearing the Education Specialist Credential. Development of Individualized Induction Plan and supervision in field.
Application should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission
Letter grade only (A-F). Not open for credit to students with credit in EDSP 546C.
546B Induction in Special Education (1)
Prerequisite: Acceptance into Masters Program in Special Education or consent of instructor.
Reflection on evidence of practice through collaboration and teacher action research. Induction and formative assessment of candidates clearing the Education Specialist Credential. Development of Individualized Induction Plan and supervision in field.
Application should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission
Letter grade only (A-F). Not open for credit to students with credit in EDSP 546C.
550. Emerging Perspectives in Special Education (3)
Prerequisite: Acceptance in Education Specialist Clear Credential program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Interpretation and application of emerging research in special education. Historical foundations, litigation, legislation, policy and practice in special education, emphasizing the last century. Current and emerging issues in the field. Relationships between research and practice.
Letter grade only (A-F).
563. Advanced Methods of Teaching Individuals with Significant Disabilities (3)
Prerequisite: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Formal and informal assessment procedures responsive to the cultural, socio-economic and linguistic characteristics of individual students with significant disabilities. Data-based decision making, curriculum adaptations and modifications, and instructional strategies. Collaboration with community agencies for successful transition from school to work.
Letter grade only (A-F).
564. Assessment and Evaluation of Students with Disabilities (3)
Prerequisite: Acceptance in Education Specialist Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Overview of Assistive Technology and Augmentative Communication for individuals with exceptional needs. Examination of legislation, devices, and services using assistive technology and augmentative communication. Introduction to assistive technology assessment and advanced development of Computer Assisted Instruction.
Letter grade only (A-F). Course fee may be required.
565. Advanced Methods of Teaching Individuals with Mild/Moderate Disabilities (3)
Prerequisites: Acceptance in Education Specialist Clear Credential Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Advanced assessment, methods, strategies, and curriculum adaptations for students with mild/moderate disabilities at all levels. Emphasis on collaboration, diversity, literacy, technology and transition.
Letter grade only (A-F).
566. Transition Into, Through, and Beyond School for Individuals with Disabilities (3)
Prerequisites: Acceptance in Education Specialist Clear Credential Level II program or Master of Science in Special Education program, development of an Individualized Induction Plan, or consent of instructor.
Examination of major issues and approaches to promoting successful transition of youth with disabilities into, through, and beyond school. Emphasis on instructional strategies for teaching adolescent youth with disabilities at the secondary level.
Letter grade only (A-F).
567. Curriculum and Instruction for Students with Disabilities: Literacy, Communication, Social and Physical Education (3)
Prerequisites: Full admittance to the Level I Education Specialist Program or Education Specialist ITEP.
Prerequisite/Corequisite: EDSP 564.
Curricular issues, models and practices related to teaching students with disabilities in literacy, communication, physical education, and social behaviors. Emphasis on core curriculum, standards-based instruction, and differentiating instruction. Instructional planning and validated teaching strategies.
Letter grade only (A-F). Course fee may be required.
569. Curriculum and Instruction for Students with Disabilities: Math, Science, and Life Skills (3)
Prerequisites: Full admittance to the Level I Education Specialist Program or Education Specialist ITEP.
Prerequisite/Corequisite: EDSP 564.
Curricular issues, models and practices related to teaching students with disabilities in math, other content areas, and life skills. Emphasis on core curriculum, standards based instruction, and differentiating instruction. Instructional planning and validated teaching strategies.
Letter grade only (A-F). Course fee may be required.

570. Community Inclusion: Introduction to Individuals with Disabilities (3)
Prerequisite: None
Overview of approaches, services, strategies, and research associated with the education and community inclusion of people with disabilities.
Letter grade only (A-F).

577. Instructional Methods and Strategies for Individuals with Mild/Moderate Disabilities (3)
Prerequisites: Full admittance to Level 1 Education Specialist Credential Program or ITEP, completion of ETEC 110 or equivalent, and EDSP 564.
Instructional methods, strategies, and curricular adaptations for students with mild/moderate disabilities from kindergarten to age 22. Research-based interventions, using data for program planning, and use of technology are emphasized.
Letter grade only (A-F).

578. Instructional Methods and Strategies for Individuals with Moderate/Severe Disabilities (3)
Prerequisites: Full admittance to Level 1 Education Specialist Credential Program or ITEP, and completion of ETEC 110 or equivalent, and EDSP 564.
Instructional methods, teaching strategies, and curricular adaptations for students with moderate/severe disabilities from kindergarten to age 22, including evaluation, program planning, and use of technology for instruction and communication; knowledge related to movement, mobility, and sensory needs addressed.
Letter grade only (A-F).

582. Research in Special Education: Assessment, Curriculum and Instruction (3)
Prerequisites: Acceptance in the Master of Science in Special Education program or by instructor consent and EDP 520.
Research practices in assessment and data-based decision making responsive to individual cultural, socioeconomic and linguistic characteristics; acquisition of knowledge necessary to integrate curriculum within systems that provide academic and social skills instruction to students with disabilities.
Letter grade only (A-F).

586. Education Specialist Intern Supervision (1)
Prerequisite: Full admittance to Education Specialist Intern Program
Candidates will be assigned a fieldwork supervisor who will provide support and supervision through classroom visits, online, and other means as needed. Specific emphasis on teaching English learners with disabilities.
Credit/No Credit grading only

587A. Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate Disabilities (6)
Prerequisite: Admission to the Level I Education Specialist Credential in Mild/Moderate Disabilities. Must complete all Level I courses. Application for admission should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Advanced field study in a public or private school or community-based site serving individuals with mild/moderate disabilities.
Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Students may concurrently enroll in EDSP 587B upon advisement by their faculty advisor. Credit/No Credit grading only. Course fee may be required.

587B. Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate Disabilities (6)
Prerequisite: EDSP 587A or concurrent enrollment in EDSP 587A upon advisement by their faculty advisor. Application for admission should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Advanced field study in a public or private school or community-based site serving individuals with mild/moderate disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Credit/No Credit grading only. Course fee may be required.

588A. Advanced Field Study and Seminar: Education Specialist Credential in Moderate/Severe Disabilities (6)
Prerequisite: Admission to the Level I Education Specialist Credential in Moderate/Severe Disabilities. Must complete all Level I courses. Application for admission should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Advanced field study in a public or private school or community-based site serving individuals with moderate/severe disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Students may concurrently enroll in EDSP 588B upon advisement by their faculty advisor. Credit/No Credit grading only. Course fee may be required.

588B. Advanced Field Study and Seminar: Education Specialist Credential in Moderate/Severe Disabilities (6)
Prerequisite: EDSP 588A or concurrent enrollment in EDSP 588A upon advisement by their faculty advisor. Application for admission should be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Advanced field study in a public or private school or community-based site serving individuals with moderate/severe disabilities. Candidates will demonstrate competencies in their own classroom or with a master teacher, under the supervision of a university supervisor.
Credit/No Credit grading only. Course fee may be required.

695S. Seminar in Special Education (3)
Prerequisites: Advancement to candidacy, and written application to Graduate Office. Application for enrollment must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Studies of problems and issues in special education. Relating research to practice in the area of exceptional individuals. For qualified candidates preparing for the comprehensive examination.
Not open for credit to students with credit in EDP 650. Letter grade only (A-F).

Educational Library Courses (ELIB)

UPPER DIVISION

497. Independent Study (1-3)
Prerequisites: Consent of instructor and department chair.
Independent study under faculty supervision. May be repeated to a maximum of 6 units, no more than 3 units applicable to credential or major requirement.
GRADUATE LEVEL

500. Foundations of Information (3)
Role of information and information technology in organizations (particularly in Western education) and society. Topics include societal needs and demands, diffusion of knowledge and technology, information seeking and use, information/technology and culture.
Letter grade only (A-F).

510. Collection Development (3)
Criteria, tools, procedures and policies for evaluating, selecting and maintaining informational resources to use in information organizations.
Letter grade only (A-F). Course fee may be required.

520. Information Literacy and Reference Services (3)
Letter grade only (A-F).

530A. Library Media Materials for Elementary Grades (K-5) (3)
Selection and use of fiction and non-fiction books, audiovisual and electronic media, and related materials of interest to children that reflect California's cultural diversity and support current curriculum frameworks. Criteria and tools for selection and use. Current issues.
Letter grade only (A-F).

530B. Library Media Materials for Secondary Grades (6-12) (3)
Selection and use of fiction and non-fiction books, audiovisual and electronic media, and related materials of interest to young adults that reflect California's cultural and support current curriculum frameworks. Criteria and tools for selection and use. Current issues.
Letter grade only (A-F).

550. Management of Information Organizations (3)
Philosophy, principles and problems of planning, organizing, supervising and managing a school library media program, technology service, or other information organization.
Letter grade only (A-F).

570. Library Media Technologies (3)
Prerequisite: Level I computer technology knowledge and skills. Evaluation, selection, and integration of computer, digital, audiovisual and technologies for use in schools and other library settings; issues of technology planning, instruction, collaboration, assessment, and digital citizenship.
Letter grade only (A-F).

580. Field Experience in Libraries (3)
Prerequisite: Consent of program coordinator.
Course Description: Students will model effective practices in administering a library program under the supervision of a qualified library professional. Applications for field experience are due by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Letter grade only (A-F). Course fee may be required.

Educational Technology Courses (ETEC)

LOWER DIVISION

110. Introduction to Computers as Tools (1)
Introduction to operations, terminology, and components of computing systems. Introduction to computer applications including word processing, databases, and spreadsheets. Introduction to University e-mail systems and electronic searching.
Letter grade only (A-F).

171. Critical Thinking Using Computer Technology (3)
Prerequisite/Corequisite: GE Foundation Category A1 Written English.
Cultivates critical thinking abilities in conjunction with the use of computer technology. Introduces basic hands-on computer skills to facilitate critical thinking and learning. Critically examines the use of computer technology in academic and personal lives.
Letter grade only (A-F). (2 hours lecture, 2 hours laboratory)

UPPER DIVISION

411. Assessment of Computer Technology Competency, Level I (1)
Appropriate only for students who are already proficient with the material in ETEC 444. Provides students with an opportunity to meet the California Level I computer technology requirement by a performance assessment. Two class meetings and online activities.
Credit/No Credit grading only.

435./535. Accessible Electronic and Information Technologies (3)
Prerequisite: Either ETEC 110, ETEC 411, ETEC 444 or consent of instructor.
Critical use, analysis and evaluation of computer applications of computer technologies for accessibility and usability for populations with diverse needs. Terminology, design principles, and applications of accessible technologies. Legal and ethical issues in developing or adopting accessible electronic and information technologies.
Letter grade only (A-F).

444. Computer Technology in Education, Level I (3)
Prerequisites: Course design assumes familiarity with topics introduced in ETEC 110. Introduction to educational computer technology: resources and tools for professional use; strategies for integrating computers into teaching; applications to diverse learners; legal, ethical, and societal issues. Meets the Level I teaching credential computer technology standard.
(Seminar 2 hours, laboratory 2 hours)

450. Introduction to Hybrid and Online Teaching and Learning (1)
Characteristics of hybrid and online teaching and learning; analysis and design of digital resources and learning activities; analysis of management and legal/ethical issues of online teaching and learning.

GRADUATE LEVEL

510. Foundations of Educational Technology and Media (3)
Prerequisite: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
Introduction to technology and media use in education and training. Overview of theoretical approaches, research trends, major developments, and prominent issues in the field. Incorporation of social, historical, psychological, and philosophical perspectives in the study of technology and media.
Letter grade only (A-F). (Seminar 3 hours)

523. Information and Digital Literacies (3)
Prerequisites: ETEC 444 or equivalent experience satisfying California Level I computer technology standard.
Information and digital literacies; principles and theories for integrating technologies into learning environments to improve planning, designing and implementing learning experiences; issues of technology planning, collaboration, and assessment; and digital citizenship. Course meets Level II Technology Standards.
(Seminar 3 hours) Letter grade only (A-F).
525. Digital Culture and Society (3)
Critical examination of social and cultural implications of information technologies and media. Issues of cultural bias, equity, and questions of who benefits from particular technologies. International applications and implications of information technologies.

529. Educational Technologies in Science, Engineering, and Mathematics (3)
Prerequisite: Basic teaching credential or consent of instructor.
Participants will: (a) learn about pedagogical innovations in math, science, and engineering education using technology, (b) plan, implement, assess, and refine technology-based lesson(s) in math, science, and engineering, and (c) use Internet and social networking tools for ongoing professional development. Field experience required.
Letter grade only (A-F).

530. Leadership in Technology and Media (3)
Prerequisites: ETEC 523 or consent of the instructor.
Examines the role of leadership as it relates to the implementation of educational technologies and media. Theory, knowledge, and skills necessary to use, evaluate, plan, manage, and implement technologies effectively. Administrative issues associated with computers, including security and cyber-ethics.
Letter grade only (A-F).

535./435. Accessible Electronic and Information Technologies (3)
Prerequisite: Either ETEC 110, ETEC 411, ETEC 444 or consent of instructor.
Critical use, analysis and evaluation of computer applications of computer technologies for accessibility and usability for populations with diverse needs. Terminology, design principles, and applications of accessible technologies. Legal and ethical issues in developing or adopting accessible electronic and information technologies.
Letter grade only (A-F).

540. Organization of Resources (3)
Theories of organizing resources; rationale and use of library catalogs; principles and practice in classification and cataloging applied to information organizations; technical processing and organization resources; managing collections and their access.
Letter grade only (A-F). Not open for credit to students with credit in ELIB 540.

545. Reading for Leisure and Learning (3)
Selection and use of a wide variety of literature and informational texts to reinforce literacy instruction; reading promotion for learning, personal growth and enjoyment.
Letter grade only (A-F).

551. Education and the Internet (3)
Prerequisites: Either ETEC 411, ETEC 444, equivalent experience satisfying the California Level I computer technology standard, or consent of instructor.
Survey of educational applications throughout the Internet. Characteristics of teaching and learning mediated through the Internet; analysis and design of Internet-based learning activities; design and development of online courses; implementation, management, and administration of online learning.
Letter grade only (A-F). (Seminar 3 hour)

570. E-Learning Design and Development (3)
Prerequisite: ETEC 523 or consent of instructor.
Introduction to e-learning design and development, including project management, instructional analyses and strategies, software selection, and evaluation. Interactive multimedia development applications, processes, and principles. Design and production of technology-enhanced instruction.
Letter grade only (A-F). (Seminar 3 hour)

580. Field Experience in Educational Technology (3)
Prerequisites: ETEC 523 and either ETEC 530, EDP 520 or EDP 595.
Students investigate and experience occupation or environment utilizing a form of educational technology. Under instructor guidance, students perform 90 field experience hours in educational technology environment. Instructor approval required for site selection.
Letter grading only (A-F). Course fee may be required.

659. Seminar in Educational Technology (3)
Prerequisites: Successful completion of all required course work for the Master of Arts in Education, Option in Educational Technology. Studies in educational technology including reviews of literature, critique of educational technology research, and systematic development and evaluation of areas of students' prior work.
For qualified candidates preparing for the comprehensive examination. Application for enrollment must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

Social and Cultural Analysis of Education Courses (SCAE)

550. Foundations of Social and Cultural Analysis of Education (3)
Introduction to central theories and concepts and development of core competencies in social and cultural analysis of education; discussion of applications of critical theories and pedagogies in education; examination of the significance of social difference (e.g. race, class, gender, sexuality, language).
Letter grade only (A-F).

551. Critical Pedagogies (3)
In-depth examination of foundations and constructs of critical pedagogy in various educational contexts; applications of critical pedagogies in the United States and around the world; exploration of the relationship between critical pedagogies and social and educational justice.
Letter grade only (A-F).

560. History of Social and Educational (In)equality (3)
Historical survey of education as an institution; struggles for educational justice from the 19th century to present; analysis of the historical foundation of persistent educational inequities; emphasis on peoples of color, women, people with disabilities, LGBT individuals, and immigrants.
Letter grade only (A-F). Not open for credit to students with credit in EDP 576.

561. Urban Educational Policy (3)
Critical examination of the historical, cultural and political-economic dimensions of educational policy; impact of educational policy on student learning, experiences and outcomes; issues of difference, identity and justice in educational policy; special attention to urban education policy issues in California.
Letter grade only (A-F). Not open for credit to students with credit in EDP 575.

562. Agency, Resistance and Identity in Education (3)
Sociological and anthropological approaches to understanding youth cultures, academic resilience, identity formation, and how students influence, and are influenced by, educational experiences; youth and community organizing; race, class and gender, sexuality, language, etc. as factors in education.
Letter grade only (A-F). Not open for credit to students with credit in EDP 574.
564. Language and Education Policies (3)
Examination and analysis of historical and contemporary U.S. language policies, educational language policies, and legal decisions as context for current educational language practices; comparison of experiences with other nations; discussion of the relationship between language attitudes and educational policy formation.
Letter grade only (A-F). Not open for credit to students with credit in EDP 672.

566. Education and Global (In)equality (3)
Examination of historical and contemporary global power structures that contribute to educational inequality; investigation of neocolonialism and the influence of international organizations in educational development; discussion of strategies to address social and educational inequalities that exist around the world.
Letter grade only (A-F). Not open for credit to students with credit in EDP 582.

567. Educational Issues in Global Perspective (3)
Analysis of topical issues related to education in various international contexts; examination of topical issues across countries. Students have the opportunity to select the issues under investigation in consultation with the instructor.
Letter grade only (A-F). Not open for credit to students with credit in EDP 583.

568. Globalization and Educational Reform (3)
In-depth study of globalization and its impact on education around the world; analysis of policy borrowing and lending processes in the educational arena; national and local interpretations of global or borrowed educational policies; examination of educational reform processes.
Letter grade only (A-F).

695. Social and Cultural Analysis of Education Capstone (3)
Synthesis of concepts and ideas in the social and cultural analysis of education; implications of social and cultural theories for educational practice in a variety of settings; strategies for effecting social and educational justice.
Letter grade only (A-F).
AFRICANA STUDIES
College of Liberal Arts

Department Chair: Maulana Karenga
Department Office: Psychology Building (PSY), Room 306
Telephone / FAX: (562) 985-4624 / (562) 985-5599
Website: http://www.cla.csulb.edu/departments/africanastudies/
Faculty: LaRese Hubbard, Maulana Karenga, Khonsura Aaron Wilson
Undergraduate Advisor: Maulana Karenga
Administrative Support Coordinator: Harvey D. Hunt

Students desiring information should contact the department office for referral or the faculty advisor.

Career Possibilities
Social Scientist • Social Worker • Counselor • Teacher
• Archivist • Journalist • Public Relations Consultant
• Community Organizer • Recreation • Law • School Administrator • Linguist • Parole Officer • Probation Officer
• Editor • Writer • Urban/Regional Planner • Public Policy Administrator • Foreign Policy Officer • Researcher (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The discipline of Africana Studies focuses on the critical study of African Americans, Continental Africans, Afro-Caribbeans and Afro-Latinos, but also allows for study of African peoples in Asia and Europe. It emphasizes an interdisciplinary and multicultural approach to teaching.

The Africana Studies Department encourages students to take advantage of opportunities to do service learning and internships, and study abroad. The Department encourages and supports faculty/student collaboration in conferences, forums, field trips and joint research and writing projects.

The subspecialties of the disciplines of Africana Studies include: Africana theory and philosophy; Africana women’s studies; African American historical studies; and Continental African studies.

Undergraduate Programs

Bachelor of Arts in Africana Studies (120 units)

Requirements
A minimum of 39 units is required for the major in Africana Studies; 12 lower division and 27 upper-division units. The distribution of courses within Africana Studies affords the students the opportunity for in-depth exploration of African American Studies, in Continental African Studies or a combination of the two, as well as other Diasporan studies, e.g., Caribbean basin.

Lower Division (12 units)

Take the following course:
AFRS 110 Introduction to Africana Studies (3)
Prerequisite/Corequisite: One GE Foundation course.
Take one of the following:

AFRS 120 African American History to 1865 (3)
Prerequisite/Corequisite: One GE Foundation course.
AFRS 121 African American Hist 1865-Present (3)
Prerequisite/Corequisite: One GE Foundation course.
Take 6 units electives, select one course from the following groups:

Group A (Social Science):
AFRS 120, AFRS 150, AFRS 154, AFRS 200, AFRS 201, AFRS 210
Group B (Humanities):
AFRS 140, AFRS 155, AFRS 160, AFRS 170A, AFRS 170B, AFRS 240, AFRS 255

Upper-division Core (27 units):
Take all of the following courses:
AFRS 330 Politics of the African American Community (3)
Prerequisites: AFRS 110 and AFRS 121.
AFRS 335 Economic Development in the African American Community (3)
Prerequisites: AFRS 110 and AFRS 121.
AFRS 495 Research Methods in Africana Studies (3)
Prerequisites: AFRS 110 and 6 units upper-division work in Africana Studies. For Department majors.

Take one of the following:
AFRS 332 Civil Rights and the Law (3)
Prerequisite: GE Foundation requirements.
AFRS 354 African American Women and the Civil Rights Movement (3)
Prerequisite: GE Foundation requirements.

Take electives (15 units), one or more selected from the following groups:

Group A (Social Sciences):
AFRS 310, AFRS 319, AFRS 325, AFRS 332, AFRS 410, AFRS 430
Group B (Humanities):
AFRS 343A, AFRS 346, AFRS 363, AFRS 363, AFRS 415
Group C (Theory):
AFRS 400, AFRS 454, AFRS 475, AFRS 498

Certificate in Africana Studies

Students majoring in other departments of the University but interested in Africana Studies may concurrently pursue this certificate. Courses used to meet the certificate requirement may, where applicable, also be used simultaneously to meet General Education requirements or the major and minor requirements of cooperating departments.

Requirements
1. A major in another academic discipline. Certificate can be completed prior to or simultaneously with completion of the B.A. requirement.
2. A minimum of 24 units of which at least 12 must be in upper-division courses, with two or more courses selected from each of the following:

Group A: AFRS 110, AFRS 154, AFRS 210, AFRS 325, AFRS 330, AFRS 332, AFRS 335, AFRS 420
Group B: AFRS 160, AFRS 343A, AFRS 346, AFRS 363,
Group C: AFRS 120, AFRS 121, AFRS 200, AFRS

Take 24 units from the following:

Group A (Social Sciences):
AFRS 110, AFRS 120, AFRS 121, AFRS 154, AFRS 210, AFRS 325, AFRS 330, AFRS 332, AFRS 335, AFRS 420
Group B (Humanities):
AFRS 140, AFRS 155, AFRS 160, AFRS 170A, AFRS 170B, AFRS 240, AFRS 255
Group C (Theory):
AFRS 332, AFRS 333, AFRS 354, AFRS 375, AFRS 498

Certificate in Africana Studies

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Group A: AFRS 110, AFRS 154, AFRS 210, AFRS 325, AFRS 330, AFRS 332, AFRS 335, AFRS 420
Group B: AFRS 160, AFRS 343A, AFRS 346, AFRS 363,
Group C: AFRS 120, AFRS 121, AFRS 200, AFRS

Certificate in Africana Studies

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Requirements
1. A major in another academic discipline. Certificate can be completed prior to or simultaneously with completion of the B.A. requirement.
2. A minimum of 24 units of which at least 12 must be in upper-division courses, with two or more courses selected from each of the following:

Group A: AFRS 110, AFRS 154, AFRS 210, AFRS 325, AFRS 330, AFRS 332, AFRS 335, AFRS 420
Group B: AFRS 160, AFRS 343A, AFRS 346, AFRS 363,
Minor in Africana Studies
Requirements
The Minor in Africana Studies is open to any non-Africana Studies majors.

The Minor in Africana Studies requires a minimum of 24 units of which at least 12 units must be in upper-division courses.

Take two or more courses from each of the following:
Group A: AFRS 120, AFRS 121, AFRS 154, AFRS 200, AFRS 201, AFRS 210, AFRS 310, AFRS 325, AFRS 330, AFRS 332, AFRS 335, AFRS 354, AFRS 400, AFRS 410, AFRS 420, AFRS 430
Group B: AFRS 140, AFRS 155, AFRS 160, AFRS 255, AFRS 343A, AFRS 343B, AFRS 346, AFRS 353, AFRS 363, AFRS 415, AFRS 454, AFRS 475, AFRS 498I

Take the following core course:
AFRS 110 Introduction to Africana Studies (3)
Prerequisite/Corequisite: One GE Foundation course.

AFRS 495 Research Methods in Africana Studies (3)
Prerequisites: AFRS 110 and 6 units upper-division work in Africana Studies. For Department majors.

Africana Studies Courses (AFRS)

LOWER DIVISION

100. Composition II (3)
Prerequisite: Score of 147 or above on the English Placement Test; "C" or better in AFRS 100S, ASAM 100S, CHLS 104S, ENGL 100S, ALI 150; or consent of instructor.
Composition II does not count toward meeting the major requirements. It does count toward graduation and will be included in the overall GPA.
Expository writing course designed for first-year students. Satisfies one of the writing requirements for general education at CSULB. Emphasizes academic writing, focusing primarily on analytical reading and thesis-driven writing.
Same course as ENGL 100, ASAM 100, CHLS 104. Not open for credit to students with credit in: ENGL 100, ASAM 100, CHLS 104.

100S. Composition I (3)
Prerequisite: Students who score 146 or below on the English Placement Test and who have not taken equivalent courses in another department are eligible for enrollment in this course.
Composition I does not count toward meeting the major requirements. It does count toward graduation and will be included in the overall GPA. Must have a "C" or better to earn credit in GE.
Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading, as well as to the developing stronger reading comprehension for specific writing tasks.
Same course as ASAM 100S, CHLS 104S, ENGL 100S. Not open for credit to students with credit in AFRS 1; ASAM 1, CHLS 1, ENGL 1, ASAM 100S, CHLS 104S, ENGL 100S, ESW 100S.

110. Introduction to Africana Studies (3)
Prerequisite/Corequisite: One GE Foundation course.
A critical survey of the major themes, issues, concepts, current research, schools of thought, theorists and scholars in the discipline of Africana Studies, as well as its historical evolution and academic rationale.
177. African American Rhetoric (3)
Prerequisite/Corequisite: AFRS 100 or GE Composition (Area A1) or equivalent.
Principles and practice of excellent public speaking (medu nefer) from an Afrocenric perspective including: extensive practice in preparation and presentation; developing persuasive arguments; cultivating critical and ethical thinking, listening and cultural sensitivity; audience evaluation, adaptation and engagement; and building confidence.

200. Ancient African Civilizations (3)
Prerequisite: GE Foundation requirements.
A study of ancient African empires, kingdoms and states, including discussions of political institutions, social structures, education, cultural values, trade and international relations.

201. History of Slavery (3)
Prerequisite: GE Foundation requirements.
Historical examination of trans-Atlantic slave trade and its impact on Africa and the Western Hemisphere. Nature of slavery in Africa, Greece, Italy, the Caribbean, the Middle East, South America, and the United States. Legacy of slavery.

210. African American Community (3)
Prerequisites: GE Foundation requirements.
Examines the social structure and challenges in the community life of African-Americans as compared to other ethnic groups. Explore and analyze how institutional and stratified pattern, demographic changes, social movements, community organizational programs affect African-Americans. Case studies presented.

214. Introduction to Africana Aesthetics (3)
Prerequisite: GE A.1 (Communication), Corequisite GE A.3 (Critical Thinking)
African Aesthetic is the philosophy of goodness, beauty and creativity informed by an African worldview. Surveys key 20th century writing on Africana aesthetics by African philosophers, such as Alain Locke, W.E.B. Dubois, Zora Neale Hurston, and Margaret Walker.
Letter grade only (A-F).

215. U.S. Diversity and the Ethnic Experience (3)
Prerequisites: Open only to Integrated Teacher Education Program students.
Survey of four major ethnic groups (American Indians, African American, Latino American, and Asian American) in American society from the colonial era to the present. Special attention to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States.
Letter grade only (A-F). Same course as AIS 215, ASAM 215, and CHLS 215. Not open for credit to student with credit in AIS 215, ASAM 215, CHLS 215. Departments take turn offering course in the Fall semester.

216. Caribbean Intellectual Thought (3)
Prerequisite: AFRS 110.
An introduction to 20th century Caribbean intellectuals and their contributions to African American social and political thought and issues facing the African diaspora.
Letter grade only (A-F).

240. African and African American Folklore and Culture (3)
An examination and presentation of material on folklore, folk tales, and folk heroes in the African American community. Some attention also given to African mythology.

254. Africana Womanist Religious Thought (3)
Prerequisite: AFRS 110 or AFRS 154.
Critical survey of the major spiritual and ethical themes and concepts of Africana womanist religious thought in Christianity, Islam and African traditions of Kwaya, Ifa and Maat, including voice, Afrocentricity, claiming, naming, self-defining gender jihad, complementarity, mutual respect, and reciprocity.
Letter grade only (A-F).

255. Introduction to Hip Hop (3)
Prerequisites: GE Foundation requirements.
A critical exploration of Hip Hop’s history and culture, which includes analysis of its impact and influence on contemporary aesthetic culture, race relations, gender politics and struggles for social justice.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

310. African American Male and Female Relationships (3)
A comprehensive study of male/female patterns of interaction in the African American community. Some attention given to institutional impact, role changes and projected images of relationships.

319. The Ethnic Experience in the U.S. (3)
Prerequisite: GE Foundation requirements.
Comparative study of race, cultures, and ethnic relations in U.S. society with special focus on experiences of four core groups: Native Americans, African Americans, Asian Americans, and Latino Americans.
Same course as AIS 319, ASAM 319, and CHLS 319. Not open for credit to student with credit in AIS 319, ASAM 319, CHLS 319, or WGSS 319. (Lecture/Discussion.)

325. Africana Psychology (3)
Prerequisite: AFRS 110 or PSY 100
Develops the concept of Africana Psychology. Using comparative techniques, the course introduces students to common consequences in the experience of being a person of African descent, or a person of color.

330. Politics of the African American Community (3)
Prerequisites: AFRS 110 and 121.
Study of the perspectives, styles, problems and dynamics of political activity in the African American Community.

332. Civil Rights and the Law (3)
Prerequisite: GE Foundation requirements.
Designed to provide the student with a basic understanding of the interaction between the American legal system and civil rights of African Americans, other minorities, women and the general citizenry.

335. Economic Development in the African American Community (3)
Prerequisites: AFRS 110 and AFRS 121.
Development of business and banking institutions in the African American community. Some attention given to institutional factors on development.
Letter grade only (A-F).

343A. African Literature (3)
Prerequisites: GE Literature requirements and one or more Exploration courses.
A general survey of traditional and contemporary African Literature within the context of the historical, political, social, economic, and cultural movements. Also a comparison of Pan-African literature and Western literature.
433B. Caribbean Literature (3)
Prerequisite: GE Foundation requirements.
A general survey of traditional and contemporary Caribbean literature, within the context of the historical, political, social, economic and cultural movements. Also a comparison of Pan-African literature and Western literature.

346. Africana Theatre (3)
Prerequisites: GE Foundation requirements.
Introductory survey course of Africana theatre as a historic medium, profoundly revealing in its humanistic, literary, social and cultural heritage as it relates to Africa, America and the Caribbean.
(Lecture 2 hours, activity 2 hours)

353. Religions of African Peoples (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper-division standing.
Critical examination of selected spiritual and ethical traditions of the world African community with emphasis on Maat, Ifa, Christianity and Islam, their sacred texts and commentaries, major themes, representative figures, and comparative analyses of their continental and diaspora expressions.

354. African American Women and the Civil Rights Movement (3)
Prerequisite: GE Foundation requirements.
A critical examination of vital and multiple roles African American women played in the modern civil rights movement. Emphasis on African American women's agency, activism and shared vision, and role as an essential political force in reconceiving and reshaping U.S. history.

363. History of African Art (3)
Prerequisite: GE Foundation requirements.
Survey of African art from antiquity to the present as an integral part of African culture, including historical, cultural and religious contexts.

400. African American Social Thought (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Survey of African American intellectual history, with emphasis on social theories and opposing schools of intellectual thought.

410. The African American Family (3)
Prerequisites: GE Foundation requirements. AFRS 325 or consent of instructor.
Systematic study and social-historical analysis of the structure and function of the African American Family in the United States. Sociological/theoretical analysis of the models of family units, roles and interpersonal relations in society. Comparison with other family units in America.

415. International Africana Children’s Literature (3)
A survey of literature for and/or about African and African American children by authors from Africa, the U.S. the Caribbean and the rest of the Diaspora.

420. African American Children in Public Schools (3)
Theories, concepts and principles relating to the intellectual growth, development and learning of African American children.

423. Issues in Psychological Assessment of African Americans (3)
Prerequisites: candidates must have working knowledge of statistical concepts, upper-division standing in Africana Studies or consent of instructor.
Examination of issues, problems, and practices in the assessment of African American children.

430. African Political Leadership in the Twentieth Century (3)
Prerequisite: GE Foundation requirements.
Critical examination of African’s search for national liberation and cohesion, collectively built institutions, movements/parties and ideological self-definition. Comparative study of traditional African leadership concepts and modern forms. Focus on selected countries and major African leaders.

454. Africana Womanism: An Intellectual History (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper-division standing.
Historical and critical study of the major schools of thought in Africana womanism, including continental and diasporan sources, historical evolution, cultural grounding, methodology, discourse on and with feminism, enduring and current issues and its relevance and relation to social change.

475. Racism and Sexism: An Analytical Approach (3)
Prerequisite: AFRS 332
Examination of institutions and a study of legislation which has been written and implemented in consequence of racism and sexism in American society. Social theories used to support and reject concepts of racism and sexism will also be presented.

490. Selected Topics in Africana Studies (3)
Prerequisite: Consent of instructor.
Topics of current interest in Africana Studies selected for intensive development.
May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.

495. Research Methods in Africana Studies (3)
Prerequisites: AFRS 110 and 6 units upper-division work in Africana Studies. For Department majors.
Presents information on use of scientific methods in Africana Studies, research theory, research design, sampling, measurement and scientific techniques. Focuses on instrument construction as well as test reliability and validity.
Letter grade only (A-F).

498. Ancient Egyptian Ethical Thought (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Critical study of ethical thought of ancient Egypt with due attention to theological, literary and socio-historical context in which it was developed and evolved, including examination of its major ethical texts and comparative analysis with surrounding traditions.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Permits individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units.
AMERICAN INDIAN STUDIES
College of Liberal Arts

Director: Craig Stone
Program Department Office: F03-300
Telephone: (562) 985-8703
Faculty: Craig Stone
Academic Advisor: Craig Stone
Department Administrative Support Coordinator: Michelle Seales

Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
American Indian Affairs • Social Scientist • Archivist, Social Worker • Journalist • Counselor • Teacher • Public Relations Consultant • Community Organizer • School Administrator • Linguist • Law Parole Officer • Probation Officer • Editor • Writer • Urban/Regional Planner • Public Policy Administrator • Foreign Policy Officer • Researcher (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
American Indian Studies is an interdisciplinary study of the American Indian. The options are designed to provide students with various fields of knowledge of American Indian Studies with opportunities for emphasis on particular topical, cultural and geographical interests. The program is governed by a committee of faculty representing a variety of schools and departments throughout the university.

Courses offer two directions: 1) content directed toward American Indian culture in the North Western Hemisphere; and 2) relevant content leading toward understanding the American Indian experience.

Students may pursue a program in American Indian Studies through a minor, certificate or concentration in American Indian Studies in the Liberal Studies Degree.

Undergraduate Programs

Certificate in American Indian and Indigenous Studies

Students pursuing any approved degree or credential program of the University may at the same time earn a Certificate in American Indian Studies. Courses taken to meet the requirements may be used, where applicable, to meet General Education requirements or the degree or credential requirements of cooperating departments. Certification of successful completion of requirements will be issued upon the recommendation of the American Indian Studies Program Director.

Requirements
1. A Bachelor’s degree with a major in a traditional discipline. (Certificate requirements may be completed prior to or after the completion of B.A. requirement).
2. Submission of all college/university transcripts to the academic advising coordinator, who will work with the student to develop a well-integrated program of studies. Interested students are strongly encouraged to meet with the academic advising coordinator after having completed the lower division core courses.
3. A minimum of 21 units, distributed as follows.
   Core Courses (9 units)
   Take three of the following courses:
   AIS 101 or AIS 222, AIS 308 or ANTH 322, AIS/FEA 450 or AIS 485
   Lower Division Core:
   Take 3 units from the following courses:
   AIS 101, AIS 105, AIS 106, AIS 200, AIS 215, AIS 222.
   Upper Division Core:
   Take 3-9 units from the following courses:
   Upper Division Electives: (0-6 units)
   Take up to two of the following courses:
   • American Indian Studies: AIS 319, AIS 308, AIS/WGSS 313, AIS 497
   • American Studies: AMST 300, AMST 350
   • Anthropology: ANTH 321, ANTH 322, ANTH 329, ANTH 448, ANTH 449, ANTH 450 (maximum 3 units approved by advisor), ANTH 451 (can only be taken once) ANTH 487
   • Art/Art History: AH 430, AH 431, ART 354A or ART 354B, ART 440/ART 540, AH 456/556
   • Comparative World Literature: CWL, 315, CWL 320, CWL 415
   • English: ENG 340, ENG 375, ENG 470, ENG 683I (ENG 683I is only open to English Masters Students)
   • Film and Electronic Arts: FEA 316, FEA 380, FEA 450
   • Geography: GEOG 357, GEOG 473, GEOG 481, GEOG 447
   • Human Development: HDEV 320, HDEV 360, HDEV 403
   • Journalism: JOUR 310, JOUR 311, JOUR 431
   • Kinesiology: KIN 338, KIN 332, KIN 335 (KIN 338 and KIN 335 are only open to Kinesiology Majors)
   • Museum Studies/CRM: AH 430, AH 431, ANTH 487
   • Music: MUS 471, MUS 478, MUS 490
   • Philosophy: PHIL 351, PHIL 451, PHIL 489
   • Political Science: POSC 311, POSC 312, POSC 321, POSC 326 POSC 323, POSC, 395
   • Social Work: SW 330, SW 331, SW 350, SW 351
   • Women’s and Gender Sexuality Studies: WGSS 313, WGSS 318, WGSS 401
Minor in Native American Cultures
15 units required for the minor.

Lower Division required (3 units)
AIS 101 Introduction to AIS
Corequisite/Prerequisite: Any GE Foundation course.

Upper Division Core
Select 6 - 9 units from the following:
AIS 300 or AIS/FEA 450
AIS 320 or AIS 420
AIS 340/ENGL 340 American Indian Literature (3)
Prerequisite: GE Foundation requirements.
AIS 345
AIS 335 or AIS 336
AIS 454/AH 454 Contemporary Indigenous Arts (3)
AIS 485 American Indians and the Law (3)
Prerequisites: Completion of the GE Foundation requirement, completion of one or more Exploration courses and upper-division status. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
AIS 490 or AIS 499

Electives
Select: 3-6 units in any combination from the following courses and/or areas. Anthropology, Museum Studies/CRM, American Indian Studies, Art/Art History and Social Work.
Anthropology: ANTH 321, ANTH 322, ANTH 329, ANTH 448, ANTH 449, ANTH 450 (maximum 3 units approved by advisor), ANTH 451 (can only be taken once) ANTH 487.
Museum Studies/CRM: AIS 222, AH 430, AH 431, ANTH 487.
American Indian Studies: AIS 105, AIS 106, AIS 215 or AIS 319, AIS 308, AIS/WGSS 313, AIS 400, AIS 497
American Studies: AMST 300, AMST 350
Art/Art History: AH 114, ART 254, ART 354A or ART 354B, AH 430, AH 431, ART 440/540, AH 456/556
Comparative World Literature: CWL 315, CWL 320, CWL 415
English: ENGL 340, ENGL 375, ENGL 470, ENGL 683I (see note below)
Film and Electronic Arts: FEA 316, FEA 380, FEA 486, FEA 450
Geography: GEOG 120, GEOG 357, GEOG 473, GEOG 481, GEOG 447
Human Development: HDEV 360, HDEV 403
Journalism: JOUR 310, JOUR 311, JOUR 431
Kinesiology: KIN 156, KIN 157, KIN 338, KIN 332, KIN 335 (see note below)
Music: MUS 471, MUS 478, MUS 490
Philosophy: PHIL 270, PHIL 351, PHIL 451, PHIL 489
Political Science: POSC 311, POSC 312, POSC 321, POSC 326, POSC 323, POSC 395
Recreation: REC 225, REC 325, REC 337, REC 371, REC 428, REC 431
Social Work: SW 220, SW 221, SW 330, SW 331, SW 350, SW 351. (see note below)
• Women’s and Gender Sexuality Studies: WGSS 313, WGSS 318, WGSS 401
Note: SW 221 is only open to Social Work Majors.
Note: KIN 332 and KIN 335 are only open to Kinesiology majors.
Note: ENGL 683I is only open to English Masters Students.

American Indian Studies Courses (AIS)

LOWER DIVISION
101. Introduction to the Study of Native American People (3)
Corequisite/Prerequisite: Any GE Foundation course.
Examines history, culture, religion, art and societies of American Indian. Introduction to historical aspects of Native American experience and discuss these aspects of Native life as applied to contemporary American Indian issues.
Letter grade only (A-F).

105. American Indian History – Pre 1871 (3)
Prerequisite/Corequisite: One course from GE category A1.
A survey of histories and cultures of American Indian Peoples in North America from pre-contact to 1871 and analysis of political, cultural, economic, legal and military relationships that developed between the American Indians and foreign nations.
Same course as HIST 105. Not open for credit to students with credit in HIST 105.

106. American Indian History – Post 1871 (3)
Prerequisite/Corequisite: One course from GE category A1.
Survey of histories and cultures of American Indian Peoples in North America from 1871 to present.
Same course as HIST 106. Not open for credit to students with credit in HIST 106.

200. Contemporary Issues in American Indian Studies (3)
Analysis of major issues in contemporary American Indian affairs, politics, art, philosophy, education, reservations life, economics, government relations, Indian organizations, Indian-white relations, legal issues, land rights, media issues, Indian activist movements, and community concerns.

215. U.S. Diversity and the Ethnic Experience (3)
Prerequisites: Open only to Integrated Teacher Education Program students.
Survey of American Indian, African American, Latino American, and Asian Americans in American society from the colonial era to present. Special attention to the formation and transformation of each ethnic group and their roles in the development of the United States.
Letter grade only (A-F). Same course as AFRS 215, ASAM 215, and CHLS 215. Not open for credit to student with credit in AFRS 215, ASAM 215, or CHLS 215. Departments take turn offering the course in the Fall semester.

222. American Indian Museum Studies (3)
Prerequisite: One G.E. Foundation course.
Designed as a hybrid, online and face-to-face introduction to the meaning and significance of American Indian Art in the display and exhibition of American Indian culture. Includes fieldtrips to museums, online discussions and activities.
Letter grade only (A-F).
300. American Indians in Cinema (3)
Examines the creation of stereotypical, both positive and negative images of American Indians in cinema utilizing silent cinema through the contemporary era. Discusses representations of American Indians in American cinema from an American Indian perspective.
Class content will vary dependent on films available for instruction. Letter grade only (A-F).

301. American Indian Traditions and Arts (3)
Focus on the history and theory of “Fourth World” cinema production. Examines American Indian and Indigenous self-representation in film. Letter grade only (A-F). Same course as AFRS 301, ASAM 301, and CHLS 301. Not open for credit to students with credit in AIS 319.

302. American Indian Traditions and Customs (3)
Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

303. American Indian Art and Material Culture (3)
Prerequisite: Completion of GE Foundation requirements. Analysis of Indigenous arts in the United States and American Territories; with an emphasis on Native American and Pacific Islander cultures, from 1950 to the present. Letter grade only (A-F).

304. American Indian Literature (3)
Prerequisite: GE Foundation requirements. Analysis of the written and oral literacy traditions developed by American Indians. Range of works studied: oral history, tales, myths, song, prayer, poetry, short story, and novel.
Same course as ENGL 340. Not open for credit to student with credit in ENGL 340.

305. American Indian Art and Material Culture (3)
Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

306. Indigenous Philosophies of Sustainability (3)
Prerequisite: Completion of GE Foundation, one or more Explorations courses and upper-division standing. Detailed examination and comparison of Indigenous philosophies of sustainability, worldviews, and life experiences of American Indians in the United States compared to western society. Emphasis on American Indian philosophical traditions and applied sustainability practices. Letter grade only (A-F).

307. American Indian Traditions and Arts (3)
Focus on the history and theory of “Fourth World” cinema production. Examines American Indian and Indigenous self-representation in film. Letter grade only (A-F). Same course as AFRS 301, ASAM 301, and CHLS 301. Not open for credit to students with credit in AIS 319.

312. American Indian Genders and Sexualities (3)
Analysis of popular, feminist, queer and tribally specific theories and representations of American Indian genders and sexualities with a focus on literatures by American Indian women, men and two-spirit peoples.
Same course as WGSS 313. Not open for credit to students with credit in WGSS 313.

319. The Ethnic Experience in the U.S. (3)
Prerequisite: GE Foundation requirements. Examination of dynamics of development of our multicultural society, emphasizing study of the four distinct ethnic strands of American society (Asian American, Black American, Mexican American, and American Indian) and their role in maintenance of cultural diversity in United States.
Same course as AFRS 319, ASAM 319, and CHLS 319. Not open for credit to student with credit in AFRS 319, ASAM 319, B/ST 319, CHLS 319, or WGSS 319. (Lecture/Discussion)

320. American Indian Art and Material Culture (3)
Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

321. American Indian Traditions and Arts (3)

322. American Indian Traditions and Arts (3)
Focus on the history and theory of “Fourth World” cinema production. Examines American Indian and Indigenous self-representation in film. Letter grade only (A-F). Same course as AFRS 322, ASAM 322, and CHLS 322. Not open for credit to student with credit in AFRS 322, ASAM 322, B/ST 322, CHLS 322, or WGSS 322. (Lecture/Discussion)

325. American Indian Art and Material Culture (3)
Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

330. American Indian Art and Material Culture (3)
Survey of North American Indian art; emphasis on art forms of the U.S., Alaska, and Canada. Traditional and contemporary art and artists will be explored, focusing on aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture.

335. American Indian Philosophies (3)
Detailed examination of American Indian tribal cultures and worldviews. Comparison of tribal philosophy and beliefs with that of western society. Special emphasis placed on traditional philosophical traditions as practiced in the cultural regions of North America and the sub-Arctic.
Letter grade only (A-F).

336. Indigenous Philosophies of Sustainability (3)
Prerequisite: Completion of GE Foundation, one or more Explorations courses and upper-division standing. Detailed examination and comparison of Indigenous philosophies of sustainability, worldviews, and life experiences of American Indians in the United States compared to western society. Emphasis on American Indian philosophical traditions and applied sustainability practices. Letter grade only (A-F).
490. Selected Topics in American Indian Studies (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in American Indian studies selected for intensive development.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

497. Fieldwork in American Indian Studies (1-3)
Prerequisites: Upper-division standing, consent of instructor.
Supervised experience relevant to specific aspects of American Indian community in off-campus setting. Project must be related to student's major or certificate program. Regular meetings with faculty supervisor and written reports required.
May be repeated to a maximum of 6 units.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed Studies to permit individual students to pursue topics of special interest.
May be repeated to a maximum of 6 units.
AMERICAN STUDIES
College of Liberal Arts

Director: Brett Mizelle
Department Office: Faculty Offices 2 (FO2), Room 109
Telephone / FAX: (562) 985-4424 / (562) 985-5431
Website: http://www.cla.csulb.edu/programs/americanstudies/

Affiliated Faculty: Elyse M. Blankley (English/Women’s, Gender, and Sexuality Studies), Patricia A. Cleary (History), Sharon D. Downey (Communication Studies), Linda N. España-Maram (Asian and Asian American Studies), Araceli Esperza (English), J. William Gibson (Sociology), George Hart (English), Ann Johnson (Communication Studies), Maulana Karenga (Black Studies), Karen Kleinfelder (Art), Dennis Lopez (English), Eileen Luhr (History), Brett Mizelle (History), Charles Noble (Political Science), Daniel J. O’Connor (Liberal Studies), Carlos R. Piar (Religious Studies), Charles Ponce de Leon (History), Karen Rasmussen (Communication Studies), Maythee Rojas (Women’s, Gender, and Sexuality Studies), Max Rosenkrantz (Philosophy), Anna Sandoval (Chicano and Latino Studies), Sarah Schrank (History), Nancy Strow Shelley (English/Liberal Studies), Craig R. Smith (Communication Studies), Jon R. Stone (Religious Studies), Dean S. Toji (Asian and American Studies), John N. Tsuchida (Asian and Asian American Studies), Frederick Wegener (English), Hugh Wilford (History)

Career Possibilities
Advertising • Entertainment • Journalism • Management • Marketing • Mass Media (film, radio, television) • Politics • Professional Writing and Editing (creative or technical) • Public Relations • Publishing • Historian • Administrator in Historic and Cultural Preservation • Teacher • Museum Curator • Multimedia Specialist • Preservation and Environmental Law • College Instructor • Environmental Public History Review Specialist • Human Resources Manager • Systems Analysts • Insurance Broker (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

What is an American? How and why is culture important to our lives and identities? How do we represent the past and what importance—and limitations—do these representations have? How and why does culture—including popular culture, the arts, and literature—serve as a site of social struggle? How do diverse groups within the Americas imagine their identities and their relation to the United States? What happens when we look at our world(s) from a variety of perspectives? These are some of the questions that are addressed in American Studies, an interdisciplinary approach to American history, life, and culture.

American Studies is a vital, malleable, and growing academic enterprise, one known for the new questions it has posed, the new perspectives it has brought to the study of the cultures of the United States, and the new information it has introduced into scholarly and public conversations about national identity and experience. Students in this interdisciplinary program play an active role in their own education, working with the program director to design their own plan of inquiry into various aspects of American society and culture.

The American Studies Program offers a major leading to the bachelor’s degree and a minor. Students are strongly encouraged to meet with the program director at an early stage in their studies for general education and preparatory course recommendations. The program director also provides ongoing advising and career information for American Studies students.

Bachelor of Arts in American Studies (120 units)

Requirements
A minimum of 36 units distributed as follows:
Core courses (21 units):
Take the following courses:
AMST 300 Introduction to American Studies (3)
Prerequisites: None
AMST 350 California Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing Interdisciplinary examination of the culture of California.
AMST 498 Senior Seminar in American Studies (3)
Prerequisites: Completion of AMST 300 and 18 units of upper-division work in American Studies or affiliated fields.
Take 6 additional units in AMST-designated courses, which include AMST 310, AMST 351, AMST 360, AMST 421 and AMST 495.
Take 3 units from the following courses:
HIST 477A American Cultural History (3)
Prerequisites: None
HIST 477B American Cultural History (3)
Prerequisites: None
Take 3 units from upper division ENGL-designated American Literature courses.
Elective pattern (15 units):
Students choose a five-course elective pattern in consultation with the program advisor in one of the following areas of concentration. No more than two courses in this elective pattern can come from any one academic department.
1. American Institutions, Ideas, and Experiences
2. Diversity and Difference
3. Popular Culture, Media, and Consumerism
4. Public Culture and Civic Engagement
5. America and the World
6. Student Designed Area of Concentration

Minor in American Studies
Minimum of 18 units.
Take both of the following courses:
AMST 300 Introduction to American Studies (3)
Prerequisites: None
AMST 350 California Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing;
Take one additional AMST-designated course.
Take 9 units chosen in consultation with faculty advisor.
American Studies Courses (AMST)

UPPER DIVISION

300. Introduction to American Studies (3)
Interdisciplinary approaches to study of American civilization from colonial period through twentieth century. Significant issues and problems in American life examined from perspectives of several disciplines.

310. Foodways in Contemporary America (3)
Prerequisites: Completion of GE Foundation Courses
Examines the production and consumption of food in the U.S. after 1945, comparatively exploring issues of race, class, gender, and inter-ethnic relations. Themes include food as "Americanization," "authentic" cuisine, politics of sustainability, and social justice in the food industry.
Letter grade only (A-F).

350. California Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing.
Interdisciplinary examination of California culture. Emphasis on how California’s history, politics, environment, social movements, art, and literature produce a contested and always changing culture.

351. Celebrity in American Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing
Interdisciplinary examination of the changing meanings of fame in American society, addressing the production, consumption and cultural work of celebrity.

360. Explorations in American Popular Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing.
Examines broad terrain of American popular culture from multiple disciplinary perspectives, interrogating both the form and content of cultural production and reception in the past and present.
Not open for credit to students with credit in AMST 200.

421. Animals in American Culture (3)
Prerequisites: GE Foundation requirement; upper-division standing
Interdisciplinary examination of the role of non-human animals in making cultural meaning. Traces the many ways in which animals, not just humans, have shaped American history and culture.

495. Selected Topics in American Studies (3)
Prerequisites: GE Foundation; upper-division status.
Topics of current interest in American Studies selected for intensive development.
May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in Schedule of Classes.

498. Senior Seminar in American Studies (3)
Prerequisites:Completion of AMST 300 and 18 units of upper-division work in American Studies or affiliated fields.
Capstone research course for American Studies majors
Letter grade only (A-F).
Career Possibilities
Anthropologist • Archaeologist • Archivist • Attorney • Physician Lawyer • Curator • Writer • Researcher • Linguist • Social Worker • Tour Guide • Cultural Resource Manager • Urban Planner • Foreign Service Officer • Personnel Manager • Health Researcher • Immigration Inspector • Teacher (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The undergraduate major in Anthropology is designed to provide students with knowledge of the various fields of Anthropology and with opportunities for emphasis in particular topical and geographical interests. The undergraduate minor in Anthropology is recommended for students preparing for careers which will require practical knowledge of different cultural and linguistic backgrounds. The graduate program is designed to meet the needs of students who are seeking to expand their knowledge and increase their competence in anthropology. Graduate students are responsible for observing the general requirements for the M.A. degree as stated in this catalog. It is also recommended that prospective students consult with the Graduate Advisor at their earliest opportunity.

Undergraduate Programs
Bachelor of Arts in Anthropology (120 units)
Lower Division:
Take all of the following courses:
ANTH 110 Introduction to Physical Anthropology (3)
  Prerequisites/Corequisites: Any B.2 GE Foundation course.
ANTH 120 Introduction to Cultural Anthropology (3)
  Prerequisite/Corequisite: Any GE Foundation course.
ANTH 140 Pyramids, Tombs and Treasure: Wonders of the Past (3)
  Prerequisite/Corequisite: Any GE Foundation course.
ANTH/LING 170 Introduction to Linguistics (3)
  Prerequisite/Corequisite: Any GE Foundation course.

Take an approved introductory statistics course.

Upper Division (total of 33 units):
Required Core Courses (15 units):
Take all of the following courses:
ANTH 313 World Prehistory (3)
  "C" or better required.
  Prerequisite: GE Foundation requirement.
ANTH 314 Global Ethnography (3)
  "C" or better required.
  Prerequisites: GE Foundation requirement.
ANTH 401 Foundations of Anthropology (3)
  Prerequisites: ANTH 313 and ANTH 314 with grade of "C" or better, or consent of instructor.
ANTH 435 Human Evolution (3)
  Prerequisites: ANTH 110.

Take one of the following:
ANTH 413 Language and Culture (3)
  Prerequisite: ANTH 170 or LING 170 or consent of instructor.
ANTH 475 Language and Gender in Cross-Cultural Perspective (3)
  Prerequisites: None

An additional 18 units will be selected from the courses listed below. The major allows students to be generalists picking upper-division electives from differing subfields, or to specialize in one or more subfields depending on class availability. Courses are grouped by topic/subfield as a guide for students.

Archaeology:
ANTH 405, ANTH 448, ANTH 449, ANTH 450, ANTH 451, ANTH 473, ANTH 487

Biological Anthropology:
ANTH 315, ANTH 319, ANTH 363, ANTH 402, ANTH 434, ANTH 436, ANTH 437, ANTH 480A

Cultural Anthropology:
ANTH 305, ANTH 307, ANTH 311, ANTH 321, ANTH 322, ANTH 329, ANTH 332, ANTH 448, ANTH 351, ANTH 353, ANTH 412, ANTH 414, ANTH 416, ANTH 417, ANTH 419, ANTH 421, ANTH 422, ANTH 428, ANTH 431, ANTH 432, ANTH 436, ANTH 440, ANTH 441, ANTH 442, ANTH 444, ANTH 454, ANTH 478

Linguistic Anthropology:
ANTH 412, ANTH 413, ANTH 421, ANTH 475

Students may apply a maximum of 2 Anthropology Capstone courses to the major. Students may apply Anthropology Human Diversity classes to the major.

Students may take a total of 6 units of ANTH 490 and, with approval of the undergraduate advisor and sponsoring faculty members, up to 6 units of ANTH 496, ANTH 498, or ANTH 499.

Minor in Anthropology
A minimum of 21 units in a program approved by the major advisor.

Lower Division Required:
Take all of the following courses:
ANTH 110 Introduction to Physical Anthropology (3)
  Prerequisites/Corequisites: Any B.2 GE Foundation course.
ANTH 120 Introduction to Cultural Anthropology (3)  
Prerequisite/Corequisite: Any GE Foundation course

ANTH 140 Pyramids, Tombs and Treasure: Wonders of the Past (3)  
Prerequisite/Corequisite: Any GE Foundation course.

ANTH/LING 170 Introduction to Linguistics (3)  
Prerequisite/Corequisite: Any GE Foundation course.

Upper Division Electives:  
Take 9 units of anthropology courses in consultation with the major advisor.

Interdisciplinary Minor in Crosscultural Language and Academic Development Studies  
For requirements, see description in the Advanced Studies in Education and Counseling section of this catalog.

Graduate Programs

The department offers a master's degree in anthropology and an option in applied anthropology.

Master of Arts in Anthropology

This a general degree in anthropology comprised of a 9-unit core, 6-unit thesis, and 18-unit elective from courses offered each semester.

Prerequisites
1. A bachelor's degree in anthropology; or
2. A bachelor's degree with 24 units of upper-division courses in anthropology, comparable to those required of anthropology majors at this University;
3. A B.A. degree in any field and other background appropriate to graduate study in anthropology. Students whose background in anthropology seems inadequate may be required to fulfill specific undergraduate deficiencies before admission to candidacy. Deficiencies will be determined by the departmental graduate advisor after consultation with the student and a review of the student's transcript records.

Advancement to Candidacy
1. Acceptance into the M.A. program by the department;
2. Satisfaction of the general University requirements for advancement to candidacy (including fulfilling the GWAR);
3. Approval of the candidate's graduate program by the departmental graduate advisor;
4. The candidate must have taken:  
   ANTH 501, ANTH 510, and ANTH 560 or ANTH 561 totalling 9 core units.

Requirements
1. A minimum of 33 units of 400-level upper-division and graduate courses, of which 24 units must be at the 500-600 level in a program approved by the Graduate Advisor. These 33 units must include the following courses:
   Take all of the following courses:
   ANTH 501 Current Trends in Anthropological Theory (3)  
   Prerequisites: ANTH 401 or equivalent, and graduate standing.
   ANTH 510 Proseminar (3)

   Prerequisites: Six units of upper-division anthropology courses or consent of instructor.
   Take one of the following courses:
   ANTH 560 Ethnographic Research Methods (3)  
   Prerequisite: Graduate standing or consent of instructor.
   ANTH 561 Basic Computer Research Applications in Anthropology (3)  
   Prerequisite: ANTH 560 or consent of instructor.

2. Up to 6 units of course work outside the Department of Anthropology may be included in the 33 unit total;
3. Competence in appropriate research skills. These may include: familiarity with computer languages and use of computers, or statistical training and facility, or a reading knowledge of a foreign language;
4. M.A. Thesis. In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

Option in Applied Anthropology

This is a 36-unit M.A. option comprised of a 9-unit core, a 15-unit applied core, a 6-unit thesis/project, and 6 elective units.

Within the global context of urban and regional cultural change, the program offers three concentrations: multicultural education, medical/health care, and community/organizations. Regional emphasis begins with the languages, cultures, and organizations of southern California and the Southwest and extends globally.

Prerequisites
1. A bachelor's degree in anthropology; or
2. A bachelor's degree with 24 units of upper-division courses in anthropology, comparable to those required of anthropology majors at this University; or
3. A bachelor's degree in another field, either a social science, humanity, education, or medical science one, with fewer than 24 units of upper-division course work in anthropology, showing evidence of strong potential skills in applied anthropology.

Students under category (3) should submit a petition together with whatever supporting materials as recommended by the Graduate Advisor. If the Graduate Student Committee considers an applicant to lack a basic understanding of anthropological theories and methods, such an applicant will be accepted provisionally into the program (as an unclassified post-baccalaureate student), in which case he/she will be advised to enroll in courses during the first semester recommended by the Committee. Providing that the student performs satisfactorily in these courses, he/she will be admitted into the program the following semester, gaining classified status, and credit will be given for those courses completed the previous semester that are required for the Master of Arts degree.
Advancement to Candidacy
1. Classified status;
2. Satisfaction of the general University requirements for advancement to candidacy (including fulfilling the GWAR);
3. Approval of the candidate's graduate program by the departmental graduate advisor.

Requirements
Students must complete a minimum of 33 units of 400 upper level upper division and graduate courses in a program approved by the Graduate Advisor, including:
1. ANTH 501, ANTH 503, ANTH 505, ANTH 510, ANTH 517, ANTH 530, ANTH 560, and 6 units of ANTH 698
2. Two upper division/graduate elective courses selected in consultation with the Graduate Advisor
3. Up to 3 units of course work outside the Department of Anthropology may be included in the 36 unit total. Students may substitute other courses for those normally required, but only with the approval of the Graduate Advisor.
4. Students must undertake and satisfactorily complete, under the supervision of the committee, a Thesis or Project. In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

UPPER DIVISION
General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

305. Radical Social Analysis (3)
Prerequisite: GE Foundation requirement, one or more Explorations courses and upper-division standing.
Radical examination of society and culture, focusing on classic Marxian texts as well as current critical theory and analysis. Special emphasis on critiques of capitalism and the effects of global inequality on humanity.

307. Modernization in Global Perspective (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Exploration of psychological and material problems in modern society (both western and Third World) due to accelerating change beginning with advance of technology, rise of capitalism, abandonment of "old values," increasing complexity of bureaucracy, and lowering of social barriers.

311. Human Adventure (3)
Prerequisite: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Exploration of the evolution of key features of humanity from our origins through the present and into the future.

313. World Prehistory (3)
Prerequisite: GE Foundation requirement.
Origin of human beings and their cultures, development of agriculture, growth of city life, and the rise of civilization; a survey of world-wide prehistory from the Old Stone Age to the Iron Age.

314. Global Ethnography (3)
Prerequisites: GE Foundation requirement.
Recent and contemporary cultures around the world; a comparative survey of their ecological adaptations, social institutions, technology, subsistence strategies, degrees of complexity, and patterns of change.

315. Human Variation (3)
Prerequisite: GE Foundation requirement.

319. Human Growth and Development (3)
Analysis of the sequence of events in the development of people from conception to death; organ development; rapid and retarded growth patterns; the processes of aging and death from a broad ethnic and ecological perspective.

321. North American Indians (3)
Comparative study of traditional Native American societies, social organization, belief systems and religions, crafts and adaptation to varied environments; cultural changes in response to European contacts.

322. California Indians (3)
Survey of native Californian groups; discussion of the diversity of aboriginal culture prior to western contact as background for analysis of the impact of Europeans; problems of intercultural relations; and the current status of native Californians.
329. Cultural Diversity in California (3)
Prerequisite: GE Foundation requirement. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examination of current cultural diversity in California, including ethnicity, nationality, class, gender, religion, and region; and the impact of this diversity on public institutions will be covered.
Letter grade only (A-F).

332. Chinese Culture and Society (3)
Anthropological perspectives on revolution, socialism, and institutional change in China, ethnic diversity, family and kinship patterns, politics, economy, international relations, and religion in premodern and modern times.

351. Sex Roles and Culture (3)
Interaction of biological, cultural and historical factors on male/female roles and status in traditional and contemporary cultures and societies.

353. Health and Healing (3)
Prerequisite: GE Foundation requirement.
Cultural perspective of health and health care delivery; coverage of diverse cultures in the United States and abroad; emphasis on increasing personal awareness through exposure to diverse perceptions of illness and treatment.

363. Natural History of Primates (3) Prerequisites: ANTH 110.
Relationship of primates to other mammals; adaptation of arboreal mammals; functional and evolutionary aspects of primate anatomy and physiology; effects of size; primate ecology; survey of the Order Primates: Prosimii, Tarsioidea, New World and Old World Monkeys, and Hominoids.

401. Foundations of Anthropology (3)
Prerequisites: ANTH 313 and ANTH 314 with grade of "C" or better, or consent of instructor.
Introduction to history of anthropological theory from inception to current approaches; frames theories in the social context in which they emerged.
Letter grade only (A-F).

402. Evolutionary Theory (3)
Prerequisites: Upper-division standing and ANTH 110 with a grade of "C" or better.
Development of evolutionary thought and its impact on Anthropology; origins of physical anthropology; Mendelian genetics, transmutationalism, populational genetics, Hardy-Weinberg equilibrium, non-Darwinian evolution, and modern synthesis; scientific method, the application of evolutionary theory to human origins, primate biology, and behavioral biology. Current theoretical perspectives.
Letter grade only (A-F).

405. Principles of Archaeology (3)
Prerequisites: ANTH 140 and GE Foundation requirement.
Exploration of the techniques, methods, and goals of archaeological research. Study of ceramics, lithics and other parts of the archaeological record. Examination of issues in sampling, survey, excavation and dating of archaeological materials. General problems encountered in explaining archaeological phenomena.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

412. Culture and Communication (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Culture and its influence on the communication process; practical application to intercultural and multicultural situations; cultural patterns in America and abroad and their effect on verbal and nonverbal communicative behavior; cultural dimensions of ethnocentrism, stereotypes, and prejudices and their effect on communication; multicultural approaches to human interaction.

413. Language and Culture (3)
Prerequisites: ANTH 170 or LING 170 or consent of instructor.
Relation of language to social and cultural practices and processes; issues of meaning, identity and power within and across cultures. Same course as LING 413. Not open for credit to students with credit in LING 413.

414./514. Anthropology of Religion (3)
Prerequisites: ANTH 120 and upper-division/graduate standing or consent of instructor.
Anthropological examination of religious behavior and beliefs, which focuses on these phenomena in sociocultural and adaptive contexts. Using the cross-cultural and cultural evolutionary approach, hunter-gatherer religions through civilized ones will be covered.
Letter grade only (A-F).

416./516. Urban Anthropology (3)
Comparative analysis of development and role of urban centers in ancient and modern cultures; interrelationships of urban and rural populations; patterns of similarity and difference in urbanism of contrasting cultures; implications for a multi-national world.

417./517. Applied Anthropology (3)
Prerequisites: ANTH 120 and upper-division/graduate standing or consent of instructor.
Brief orientation to applied anthropology, its history and ethics; policy and applied anthropology domains (needs assessment, program evaluation, social impact assessment, environmental, advocacy); applied research methods; student proposals for internship research.

419./519. Encounters and Identities (3)
Prerequisite: Graduate and advanced undergraduate students.
Examination of how cultural anthropologists have dealt, theoretically, with the concept of identity; concentrates more on theories than geographic regions, emphasis on recent theoretical developments such as post-modern and post-colonial approaches to the study of contemporary subjectivities.
Letter grade only (A-F).

421. Education Across Cultures (3)
Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.
Same course as LING 425. Not open for credit to students with credit in LING 425.

422./522. The Anthropology of Gender (3)
Prerequisites: Upper-division standing and ANTH 351 or consent of instructor.
Examines anthropological perspectives on gender and how these perspectives have challenged and transformed anthropology and feminism; class will locate gender relations in the production of anthropological knowledge, in colonial and postcolonial social fields, and in the movement of global capitalism.
Letter grade only (A-F).
428/528. Historical Ethnography (3)
Prerequisite: Consent of instructor.
Development of the specialization of historical ethnography in anthropology, combined ethnographic and historical approaches to ethnographic questions, methodological and theoretical issues in historical ethnography.
Letter grade only (A-F).

431/531. New Media Ethnography (3)
Prerequisite: ANTH 120 or consent of instructor.
Theory and techniques in the planning, production and presentation of multimedia and hypermedia ethnography. Students will work in production teams to produce an ethnography that takes advantage of different modes of ethnographic research and presentation (i.e., interactive video, photography, print, sound).
Letter grade only (A-F). Course fee may be required. (Lecture 2 hours; Lab 2 hours)

432. Peoples of Mexico and Central America (3)
Survey of present-day peoples of Mexico and Central America; indigenous and mestizo cultures and their heritage; examination of recent change.
Not open for credit to students with credit in ANTH 323.

433. Contemporary Japan (3)
Prerequisite: ANTH 120 or consent of instructor.
Experiential course gives opportunity to apply standard ethnographic methods to study, observe, and learn about a non-U.S. culture. Analysis of methodology and data collection will occur throughout the course. Location, topics and activities will vary.
Letter grade only (A-F).

434. Primate Evolution (3)
Prerequisite: ANTH 110. Recommended: ANTH 363, upper-division physical anthropology, biology, or anatomy/physiology course.
Primate evolutionary biology, minus the sub-family hominidae; fossil record and analysis of fossils (through the use of fossil casts); detailed cranial anatomy (particularly teeth) examined in the laboratory section; literature on primate evolution surveyed.
Letter grade only (A-F). (Lecture 2 hours, Lab 3 hours)

435. Human Evolution (3)
Prerequisites: ANTH 110.
Fossil and molecular evidence for human evolution with a consideration of the importance of cultural factors.

436. Medical Anthropology (3)
Prerequisites: ANTH 353 recommended.
Interaction of cultural, biological and environmental elements in human response to disease; emphasis on an ecosystem approach with evolutionary and comparative perspectives.

437. Primate Ecology (3)
Prerequisite: ANTH 110 or a comparable biology course with a grade of "C" or better; ANTH 363 recommended.
Survey of interaction of primates with their environment. Focus on physiological ecology, nutritional ecology, chemical ecology, population ecology and behavioral ecology of primate species.
Letter grade only (A-F). (Lecture 3 hours)

440. Ethnographic Field School (3-6)
Prerequisite: Consent of instructor.
Experiential course gives opportunity to apply standard ethnographic methods to study, observe, and learn about a non-U.S. culture. Analysis of methodology and data collection will occur throughout the course. Location, topics and activities will vary.
Letter grade only (A-F).

441/541. Ethnographic Film Production I (3)
Prerequisite: ANTH 120 or consent of instructor
Intermediate-level theory and methodology for ethnographic/ documentary film production. Students will work in teams and learn the fundamentals of how to produce an ethnographic film from conception through completion using professional-quality production and post-production equipment.
Letter grade only (A-F). Course fee may be required. (Lecture 2 hours; Lab 2 hours)

442/542. Ethnographic Film Production II (4)
Prerequisite: ANTH 120 and ANTH 441/541 or consent of instructor
Advanced-level theory and methodology for ethnographic/ documentary film production. Students will work in teams and learn the fundamentals of how to produce an ethnographic film from conception through completion using professional-quality production and post-production equipment.
Letter grade only (A-F). Course fee may be required. (Lecture 3 hours; Lab 2 hours)

444/544. Transnational Migrants (3)
Prerequisites: ANTH 120 and upper-division/graduate standing or consent of instructor.
Anthropological examination of the lives of immigrants and refugees. Explores the way studies of migration challenge our understanding of the local context of globalization and transnationalism. Focus on theories of culture, ethnicity, and identity as well as theories of incorporation, adaptation and nativism and the relevance of applied anthropology through research and advocacy.
Letter grade only (A-F).

448. Ancient Civilizations of Mexico and Central America (3)
Origin and growth of the Aztec, Maya and other civilizations of Mexico and Central America.
Not open for credit to students with credit in ANTH 345.

449. Prehistoric Cultures of North America (3)
Archaeological evidence of origin and growth of the native American cultures north of Mexico; regional cultures and broad continental patterns of development.
Not open for credit to students with credit in ANTH 347.

450. Archaeological Field Research (1-10)
Prerequisite: Consent of instructor.
Introduction to field acquisition of archaeological data through remote sensing, geophysics, survey, and excavation; instructional emphasis is on recovery, recording techniques, and the management of field projects; locations will vary and may be offered on Saturdays.
May be repeated to a maximum of 10 units in different semesters. Course fee may be required.

451. Archaeological Artifacts Analyses (3)
Prerequisite: ANTH 140 or equivalent.
Study of the products of human activity; nature of measurement and observation within the archaeological record; explanations of artifact variability. Study of lithics, ceramics, and other types of archaeological materials. Practical experience in the study of materials, sampling, and errors.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters, with different instructors. (Lec 2 hrs, Lab 2 hrs)

454. Culture and Aging (3)
Cultural perspectives on aging and the aged in America and elsewhere. Attention to insider views from specific societies and to comparison of aging concerns in diverse settings.

458. Ethnographic Methods (3)
Prerequisites: ANTH 110, ANTH 120, ANTH 140, and ANTH 170 or consent of instructor.
Introduction to purposes of cultural anthropology fieldwork, methodology used to collect ethnographic data, and ways of analyzing and reporting data collected; focus on identifying and defining research problems and populations, and ethical issues that arise when conducting research.
473. Archaeology of California (3)
Prerequisites: ANTH 140 or ANTH 313 or ANTH 405.
Overview of the archaeology of California, from initial human colonization through European contact. Emphasis on environmental change, human-environment interactions, the development of social complexity, and the consequences of European colonization.
Letter grade only (A-F).

475. Language and Gender in Cross-Cultural Perspective (3)
Analysis of men's and women's communication in its social and cultural context; role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions of perceptions and stereotypes and their effect on communication.
Same course as LING 470, WGSS 475. Not open for credit to students with credit in LING 470, WGSS 475.

478. Anthropology and Film (3)
Prerequisite: One lower-division anthropology course or consent of instructor.
This seminar critically analyzes issues of an anthropological nature as presented in ethnographic and commercial films. Representations of anthropologists, anthropological theories and methods, and populations and concerns of anthropological interest are contrasted with scholarship published on the same topics.
Letter grade only (A-F) for majors/minors.

480A. Osteology I (3)
Introduction to skeletal anatomy, measurement and analysis of osteological collections, applied anthropometrics and morphometrics.
(Lecture 2 hours, Lab 3 hours)

487. Cultural Resource Management (3)
Prerequisite: ANTH 405.
Introduction to the practice of public archaeology in the United States: historical and legal background; federal, state, and local programs; archaeology and Native Americans; contract archaeology; survey, evaluation, and mitigation projects; professional employment in U.S. cultural resource management.
Letter grade only (A-F).

490. Selected Topics in Anthropology (3)
Topics of current interest in anthropology selected for intensive development.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes. Course fee may be required.

496. Internship (3)
Prerequisites: Upper-division standing, approval of faculty mentor.
Supervised internship in an area of anthropology within or outside the University; field experience of 90 hours in which the student gains practical experience in an area of anthropology.
Credit/No Credit grading only.

498. Senior Thesis (1-6)
Prerequisites: Open only to Anthropology major, senior standing, and consent of a faculty mentor.
Research for and writing of a senior thesis under the direction and guidance of an Anthropology Department faculty mentor.
Letter grade only (A-F).

499. Guided Studies in Anthropology (1-3)
Prerequisite: Consent of department.
Selected topics in anthropology and preparation of a research report.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

501. Current Trends in Anthropolgical Theory (3)
Prerequisites: ANTH 401 or equivalent, and graduate standing.
Examination of current themes used by leading anthropologists in the areas of our graduate program, i.e., Applied Anthropology, Linguistic Anthropology, and Archaeology. Investigation of how theories shape problems and analytic techniques, and what makes theory 'cutting edge'.
Letter grade only (A-F).

503. The Anthropological Perspective (3)
Prerequisite: Graduate standing or consent of instructor.
Through reading and discussion of ethnographies; reports of applied anthropological work; reviews of the scientific understanding of the process of inquiry and action in the human sciences; leading to the identification of a common core perspective within anthropology.
Letter grade only (A-F).

505. Practicing Anthropology (3)
Prerequisite: Graduate standing or consent of instructor.
Review of practical contributions by anthropologists in non-academic settings; attention to specific skills used by practicing anthropologists; business writing including resumes, contracts; oral presentations using audiovisual aids; internal and external contracting; time management; project management; working across disciplines; and ethics.
Letter grade only (A-F).

510. Proseminar (3)
Prerequisites: Six units of upper-division anthropology courses or consent of instructor.
Development of proposal planning, budgeting, and writing skills, particularly in applied anthropology, linguistics, and archaeology; both academic and contract/consulting types of proposals will be covered.
Letter grade only (A-F).

514./414. Anthropology of Religion (3)
Prerequisite: ANTH 120 and upper-division/graduate standing or consent of instructor.
Anthropological examination of religious behavior and beliefs, which will focus on these phenomena in their sociocultural and adaptive contexts using cross-cultural and cultural evolutionary approaches of hunter-gatherer religions through current ones.
Letter grade only (A-F).

516./416. Urban Anthropology (3)
Comparative analysis of development and role of urban centers in ancient and modern cultures; interrelationships of urban and rural populations; patterns of similarity and difference in urbanism of contrasting cultures; implications for a multi-national world.
Letter grade only (A-F).

517./417. Applied Anthropology (3)
Prerequisites: ANTH 120 and upper-division/graduate standing or consent of instructor.
Brief orientation to applied anthropology, its history and ethics; policy and applied anthropology domains (needs assessment, program evaluation, social impact assessment, environmental, advocacy); applied research methods; student proposals for internship research.
Letter grade only (A-F).
519./419. Encounters and Identities (3)
Prerequisite: Graduate and advanced undergraduate students. Examination of how cultural anthropologists have dealt, theoretically, with the concept of identity; concentrates more on theories than on the local context of globalization and transnationalism. Focus on theories of culture, ethnicity, and identity as well as theories of incorporation, adaptation and nativism and the relevance of applied anthropology through research and advocacy. Letter grade only (A-F).

522./422. The Anthropology of Gender (3)
Prerequisite: Graduate standing or consent of instructor (ANTH 351 recommended). Examines anthropological perspectives on gender and how these perspectives have challenged and transformed anthropology and feminisms; class will locate gender relations in the production of anthropological knowledge, in colonial and postcolonial social fields, and in the movement of global capitalism. Letter grade only (A-F).

528./428. Historical Ethnography (3)
Prerequisite: Graduate standing or consent of instructor. Development of the specialization of historical ethnography in anthropology, combined ethnographic and historical approaches to ethnographic questions, methodological and theoretical issues in historical ethnography. Letter grade only (A-F).

530. Ethnography of Communication (3)
Prerequisite: Graduate standing. Study of talk and other forms of communication from an ethnographic perspective. Emphasizes relevant methods and theories. Among the major topics presented from this perspective are language, socialization, genres of speaking, intercultural communication, speech styles, strategic uses of language, and literacy. Letter grade only (A-F). Same course as LING 533. Not open for credit to student with credit in LING 533.

531./431. New Media Ethnography (3)
Prerequisite: Graduate standing or consent of instructor. Theory and techniques in the planning, production and presentation of multimedia and hypermedia ethnography. Students will work in production teams to produce an ethnography that takes advantage of different modes of ethnographic research and presentation (i.e., interactive video, photography, print, sound). Letter grade only (A-F). Same course as LING 533. Not open for credit to students with credit in LING 533.

540. Ethnographic Field School (3-6)
Prerequisite: Consent of instructor. This experiential course gives students an opportunity to apply standard ethnographic methods to study, observe, and learn about a non-U.S. culture. Analysis of methodology and data collection will occur throughout the course. Location, topics and activities will vary. Letter grade only (A-F).

541./441. Ethnographic Film Production I (3)
Prerequisite: Consent of instructor. Intermediate-level theory and methodology for ethnographic/documentary film production. Students will work in teams and learn the fundamentals of how to produce an ethnographic film from conception through completion using professional-quality production and post-production equipment. Letter grade only (A-F). Course fee may be required. (Lecture 2 hours; Lab 2 hours)

542./442. Ethnographic Film Production II (4)
Prerequisite: Consent of instructor. Advanced-level theory and methodology for ethnographic/documentary film production. Students will work in teams and learn the fundamentals of how to produce an ethnographic film from conception through completion using professional-quality production and post-production equipment. Letter grade only (A-F). Course fee may be required. (Lecture 3 hours; Lab 2 hours)

544./444. Transnational Migrants (3)
Prerequisites: Graduate standing or consent of instructor. Anthropological examination of the lives of immigrants and refugees. Explores the way studies of migration challenge our understanding of the local context of globalization and transnationalism. Focus on theories of culture, ethnicity, and identity as well as theories of incorporation, adaptation and nativism and the relevance of applied anthropology through research and advocacy. Letter grade only (A-F).

560. Ethnographic Research Methods (3)
Prerequisite: Graduate standing or consent of instructor. A practice-oriented seminar in ethnographic research methodology, emphasizing techniques, methods, and concepts of ethnographic research. The course examines several qualitative, in-depth methods used by anthropologists as well as research design and research ethics.

561. Basic Computer Research Applications in Anthropology (3)
Prerequisite: ANTH 560 or consent of instructor. Basic qualitative and quantitative computer methods employing currently appropriate software and statistical techniques. Methods covered will be specifically related to research in archaeology and applied anthropology; and the presentation of results, as well as various research problems, will be addressed. Letter grade only (A-F).

570. Linguistic Field Methods (3)
Prerequisite: LING 420 and LING 421, or consent of instructor. Introduction to linguistic field work with a native speaker of an unfamiliar non-European language. Phonetic transcription and investigation of phonological, morphological, and syntactic structures of the selected language within the context of linguistic universals. Letter grade only (A-F). Same course as LING 580. Not open for credit to students with credit in LING 580. May be repeated for a maximum of 6 units with different topics in different semesters. May be taken more than once if the language under investigation differs.

597. Directed Readings in Anthropology (1-3)
Prerequisites: Senior or graduate standing and consent of instructor. Selected topics in anthropology will be studied in depth. A written report will be prepared. Letter grade only (A-F).

600. Seminar in Ethnology and Social Anthropology (3)
Topics of substantive and theoretical importance and their application to research problems. Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes. Course fee may be required.

697. Directed Research (1-3)
Prerequisite: Consent of department. Research in anthropology on an individual basis. Letter grade only (A-F).

698. Thesis or Applied Project (3)
Prerequisite: Consent of department. Planning, preparation, and completion of a thesis or an applied project in anthropology. Letter grade only (A-F). May be repeated to a maximum of 6 units with the same topic in the same semester.
SCHOOL OF ART
College of the Arts

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Fine Arts (FA) 4, Room 102, (562) 985-7819
Director, Undergraduate Advising: Melissa Ledesma
Undergraduate Advisors: Kristen Sumpter, Nancy de la Rosa
Graduate Advisor: Rebecca Sittler-Schrock (562) 985-7910
Advising Center Support Coordinator: Michael Nannery
Faculty and Life Model Coordinator: William Terry
Faculty: Jeffery Atherton, Margaret Black, Diedrick Brackens, Kendall Brown, Andrew Byrom, Bryan Crockett, Tanya Cummings, Laurie Gatlin, Todd Gray, Katie Grinnan, Peter Holliday, Tor Hovind, Yu Ji, Karen Kleinfelder, Thomas J. Krumpak, Jay Kwapil, Anthony Marsh, Mark Michelon, Christopher Miles, Chris Miller, Aubry Mintz, Kimiko Miyoshi, Catha Paquette, Sunook Park, Mariah Proctor-Tiffany, Brittany Ransom, Robin Richesson, Kyle Riedel, Mark Ruwedel, Roxanne Sexauer, Nizan Shaked, Fran Siegel, Carlos Silveira, Matthew Simms, Rebecca Sittler Schrock, Marian Stewart, Craig C. Stone, Ryan Taber, Marie Thibeault, Michael Whitlow, B. Shimbe Shim

Career Possibilities
Advertising Consultant or Designer • Animator • Architectural Blacksmith • Architectural Illustrator • Art Appraiser • Art Buyer • Art Consultant • Art Critic • Art Director • Art Educator • Art Librarian • Art Librarian • Art Therapist • Author • Backdrop Designer • Billboard Artist • CAD Designer • Caricaturist • Cartographer • Cartoonist • Ceramic Artist • Ceramic Designer • Commercial Artist • Commercial Photographer • Community Activist • Community Artist • Community Arts Instructor • Concept Illustrator • Conservator • Digital Fabrication • Digital/new media artist • Director • Display Designer Commercial • Display Designer Retail • Documentarian • Drawer • Editor • Fashion Illustrator • Fiber Artist • Fine Art Photographer • Gallery Director • Graphic Designer • Illustrator • Information Architect • Interactive Media Designer • Installation Artist • Jewelry Designer • Master Printer • Medical Illustrator • Metalsmith • Metals Artist • Muralist • Museum Curator • Museum Educator • Museum Registrar • Museum Staff • Painter • Performance Artist • Photographer • Photo Journalist • Police Sketch Artist • Preparator • Printmaker • Prop Fabricator • Public Artist • Renderer • Sculptor • Set Decorator • Set Designer • Storyboard Artist • Technical Illustrator • Textile Designer • Video Artist • Videographer • Web Designer • Wood Artist • Wood Worker
(Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The diversity of the School of Art programs, the quality of instruction, and the professional caliber of its faculty all combine to provide an exceptional opportunity and challenge to students seeking meaningful educational experiences and careers in the visual arts.

The School of Art may request projects completed by students for class credit be retained by the School of Art for a short specified period for the purposes of promotion and exhibition.

Programs at a Glance
Bachelor of Arts:
Art
Art History
Art Education
Bachelor of Fine Arts
Options
Ceramics, Drawing/Painting, Illustration/Animation, 3-D Media-Fiber/Metal/Wood, Art Photography, Printmaking, Sculpture, Graphic Design

Master of Arts:
Art, Concentration in Art Education
Art, Concentration in Art History
Art, Concentration in Studio Art

Master of Fine Arts
Art, Concentration in Studio Art
Tracks
Ceramics, Drawing and Painting, Fibers, Illustration/Animation, Metals, Photography, Printmaking, Sculpture/4D, Visual Communication Design, and Wood

Certificates
Museum and Curatorial Studies
Biomedical Art

Accreditation
The University is an accredited institutional member of the National Association of Schools of Schools Art and Design (National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

Admission Under Impaction
Bachelor of Arts in Studio Art
Bachelor of Fine Arts
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html

Admission to Baccalaureate Degree Options in Art Education, Art History, Studio Art or Bachelor of Fine Arts

The number of applicants to programs in Art usually exceeds the number that can be accommodated. For this reason, the school has been authorized by the California State University to apply supplemental admission criteria. Admission is on a competitive basis, and continuing CSULB students and transfer applicants will be considered equally.
Freshmen applying to the university as Art Education or Art History majors will be admitted as Pre-Art Education or Pre-Art History majors. Students applying to the B.A. in the Option in Studio Art or to one of the BFA degree options will be admitted as pre-Studio Art majors. Admission as a pre-Art Education, pre-Art History, or pre-Studio Art major does not guarantee admission to the major.

Continuing students must apply for admission to an option (Art Education, Art History or Studio Art) during the semester they have earned 45 units after all supplemental admission criteria has been met. Applications must be submitted at such a date so that students can be admitted to an option by the time they reach 60 units.

Transfer applicants must apply during the initial filing period and must designate the major on the application. Students who are not admitted to the major may be admitted to an alternate major if they have listed one on the application. (See CSULB Enrollment Services Website)

Transfer students who qualify for admission to the university may be admitted to the B.A. in the Option in Art Education, Art History or Studio Art, if they meet the supplemental admissions criteria for admission to the major. Students applying to a B.F.A. option must supply a portfolio of their creative work to the School of Art as part of the application process. (See CSULB Enrollment Services Website)

Students interested in a BFA program may apply to the BFA program (Art Photography, Ceramics, Drawing and Painting, Illustration, 3-D Media: Fiber, Metal or Wood, Printmaking, Sculpture, or Graphic Design Options) when they have completed a minimum of 60 units, but may not apply after they have completed more than a maximum of 96 units.

Admission Procedures for Change of Major

Currently enrolled students who are undeclared or majors in other departments and who wish to apply for admission to any of the degree option programs in Art must meet the current supplemental criteria for admission to major. (See CSULB Enrollment Services Website)

Students applying for the B.F.A. degree programs in Art must also submit a portfolio of their creative work.

Undergraduate Programs

Bachelor of Arts in Art

Option in Studio Art (120 units)

Requirements

Lower Division:

Take the following courses:

AH 111A Foundation Art History I (3)
**"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

AH 111B Foundation Art History II (3)
**"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

Take one of the following courses:

AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3);
Take 2 units of the following:
ART 101 Artists in Their Own Words (1)
Prerequisite/Corequisite: One GE Foundation course.

Take 1 unit of the following:
ART 121 Safety and Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.

Take the following courses:

ART 130 Foundation Two-Dimensional (3)
**"C" or better
Prerequisite: None

ART 131 Foundation Three Dimensional (3)
**"C" or better
Prerequisite: None

ART 181 Foundation Drawing (3)
Prerequisite: None

ART 184 Foundation Life Drawing (3)
Prerequisite: ART 181

ART 261 Introduction to Life Sculpture (3)
Prerequisite: ART 131 or ART 181 or consent of instructor

Take one course from the following:

ART 132, ART 149, ART 184, ART 223, ART 241, ART 270, ART 271, ART 287, ART 291

Take one course from the following:

ART 132, ART 149, ART 223, ART 241, ART 251A, ART 251B, ART 254, ART 257, ART 261, ART 263, ART 265, ART 270, ART 271, ART 287, ART 291

Upper Division:

Take 6 units of Art History;

Take one course from two of the following programs:
Drawing and Painting, Printmaking, Illustration/Animation, Photography, Graphic Design;

Take 9 units from any upper division courses in the following programs:

Take one Art or Art History GE Capstone course.

Option in Art History (120 units)

Requirements

Lower Division:

Take all the following:

AH 111A Foundation Art History I (3)
**"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

AH 111B Foundation Art History II (3)
**"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

ART 130 Foundation Two Dimensional (3)
**"C" or better
Prerequisite: None

ART 131 Foundation Three Dimensional (3)
**"C" or better
Prerequisite: None

Take one of the following:

HIST 131 Early Western Civilization (3)
Corequisite: ENGL 100
HIST 132 Modern Western Civilization (3)
Corequisite: ENGL 100
Take 3 courses from the following:
AH 112; either AH 113A or AH 113B; and either AH 114 or AH 116
Take one course from the following:
ART 181, ART 184, ART 263, ART 287

Upper Division Art History:
Take the following:
AH 447 Historiography of Art History (3)
Prerequisites: Undergraduate Art History major with senior standing or consent of instructor
Take one of the following:
ART 311 Writing about Art (3)
Prerequisites: BA or BFA student or consent of instructor. GE Foundation completed, upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
AH 446 Art History Methodologies and Writing (3)
Prerequisites: Undergraduate Art History major with junior standing. GE Foundation Completed. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
AH 453 Arts of the African Diaspora (3)
Prerequisites: GE Foundation completed. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. AH 111A, AH 111B, or consent of instructor.
Take one course from the following:
AH 415, AH 448, AH 449, AH 450
Take AH 497 plus seven courses from this list. Take at least one course from each group:
1. AH 416, AH 417, AH 465, AH 408, AH 409, AH 497
2. AH 410, AH 423, AH 424, AH 425, AH 426, AH 427, AH 497
4. AH 411, AH 430, AH 432, AH 433, AH 438, AH 439, AH 441, AH 497
5. AH 466, AH 467, AH 468, AH 469, AH 470A, AH 470B, AH 471A, AH 471B, AH 471C, AH 497
One of the 8 courses from these groups should be: AH 497

Foreign Language Requirement:
Complete three semesters of French or German (or other pre-approved foreign language) with a GPA of 2.75 or better.

Option in Art Education (120 units)

Requirements
Lower Division:
Take all of the following:
AH 111A Foundation Art History I (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
AH 111B Foundation Art History II (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
ART 130 Foundation Two Dimensional Design (3)
**“C” or better
Prerequisite: None
ART 131 Foundation Three Dimensional (3)
**“C” or better
Prerequisite: None
ART 181 Foundation Drawing (3)
Prerequisite: None
ART 184 Foundation Life Drawing (3)
Prerequisites: ART 181
ART 251A Introduction to Ceramics: Hand-building (3)
Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131
ART 251B Intro to Ceramics: Wheel Throwing (3)
Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131
ART 287 Introduction to Painting (3)
Prerequisites: ART 130, ART 181
Take 3 units of the following:
100-level AH (Non-West)

Upper Division:
Take all of the following:
ART 305 Art Disciplines and New Technology (3)
Prerequisites: Completion of 12 units of Art Foundation
ART 401 Cross-Cultural Perspective in Art Education (3)
Prerequisites: Completion of 12 units of Art Foundation
ART 407 Art Practicum (3)
Prerequisite: Completion of 12 units of Art Foundation
ART 408 Perspectives in Contemporary Art Education (3)
Prerequisite: None
ART 412 Aesthetic Theories in Art Education (3)
Prerequisite: None
ART 415 On-Site Studies in Art Education (3)
Prerequisite: None
Take one of the following:
AH 438 Art of Early to Mid Twentieth Century (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor
AH 439 Art of Mid to Late Twentieth Century (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor
Take one course from the following:
Take five courses from the following:

Single Subject Teaching Credential in Art
In addition to meeting the subject matter competence requirement for the Single Subject Teaching Credential in Art through the Option in Art Education major, prospective art teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses in their junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to
the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Before student teaching in art, students must pass a portfolio review. A passing score on the CBEST is also required. For information concerning requirements for the B.A. program, teacher preparation, as well as the fifth year for the credential, consult the art education advisor.

Bachelor of Fine Arts

The Bachelor of Fine Arts degree is offered for the student eventually seeking a Master of Fine Arts degree, the position of a professional artist or designer, and for teaching studio art within a selected specialization. The B.F.A. degree program is demanding, requiring high quality performance in order to develop the professional competence of talented students toward successful entrance into the professional art field.

To remain a B.F.A. candidate, a successful student must maintain a specified minimum GPA in their discipline. See Program Options for specific GPA requirements.

Option in 3-D Media (Fiber, Metal or Wood) (132 units)

Students who fall below a GPA of 3.0 in upper division courses in their area for two consecutive semesters will be removed from this B.F.A.

Requirements

Lower Division:

Take all of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>GE Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 111A Foundation Art History I (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> or better</td>
<td></td>
<td>Written Communication</td>
</tr>
<tr>
<td>AH 111B Foundation Art History II (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 130 Foundation Two Dimensional (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 131 Foundation Three Dimensional (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 181 Foundation Drawing (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 263 Introduction to Sculpture/4D (3)</td>
<td>ART 131</td>
<td></td>
</tr>
<tr>
<td>ART 287 Introduction to Painting (3)</td>
<td>ART 130</td>
<td></td>
</tr>
</tbody>
</table>

Take 2 units of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>GE Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101 Artists in Their Own Words (1)</td>
<td></td>
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</tr>
<tr>
<td>Prerequisite/Corequisite: One GE Foundation course.</td>
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<td></td>
</tr>
</tbody>
</table>

Take 1 unit of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>GE Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 121 Safety &amp; Sustainable Practices for Studio Artists (1)</td>
<td></td>
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<tr>
<td>Prerequisite/Corequisite: One GE Foundation course.</td>
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</tr>
</tbody>
</table>

For Wood Specialization Take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 254 Introduction to Wood (3)</td>
<td>ART 121, ART 131, or consent of instructor</td>
</tr>
</tbody>
</table>

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3);</td>
<td></td>
</tr>
</tbody>
</table>

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
<th>GE Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 251A Introduction to Beginning Ceramics: Handbuilding (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 251B Introduction to Beginning Ceramics: Wheel Throwing (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 257 Introduction to Metals (3)</td>
<td>ART 121, ART 131, or consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>ART 265 Introduction to Fiber (3)</td>
<td>ART 130, ART 131</td>
<td></td>
</tr>
</tbody>
</table>

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 261 Introduction to Life Drawing (3)</td>
<td>ART 181</td>
</tr>
<tr>
<td>ART 388 Advanced Studies in Color (3)</td>
<td>ART 130, ART 287; ART 131, ART 181, ART 130, ART 131, ART 116, ART 111A, ART 111B</td>
</tr>
</tbody>
</table>

Take one of the following specializations:

**Fiber**

Take all of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 316 Fiber: Pattern Design and Printing (3)</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 328A Fiber and Mixed Media: Sculptural Forms (3)</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 357A Metalsmithing (3)</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 358A Metalsmithing (3)</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 458A Adv Metalsmithing/Jewelry &amp; Enameling (3)</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
</tbody>
</table>

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 130, ART 131, ART 131, ART 287; ART 111A, ART 111B</td>
<td>ART 130, ART 131, ART 287; ART 111A, ART 111B</td>
</tr>
</tbody>
</table>

Take 9 units of AH

Take 6 units ART outside the specialization.

**Metal**

Take all of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 357A Metals and Jewelry (3)</td>
<td>ART 130, ART 131; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 357B Metal and Jewelry Design (3)</td>
<td>ART 130, ART 131; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 358A Metalsmithing (3)</td>
<td>ART 130, ART 131; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 358B Intermediate Metalsmithing (3)</td>
<td>ART 130, ART 131; ART 111A, ART 111B</td>
</tr>
<tr>
<td>ART 458A Adv Metalsmithing/Jewelry &amp; Enameling (3)</td>
<td>ART 130, ART 131; ART 111A, ART 111B</td>
</tr>
</tbody>
</table>

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 328B, ART 428B.</td>
<td></td>
</tr>
</tbody>
</table>

Take 9 units of AH

Take 6 units ART outside the specialization.
ART 458B Adv Metalsmithing/Jewelry & Enameling (3)
Prerequisites: ART 357B, ART 358B or consent of instructor

ART 491B 3-D Media: Senior Project (1)
Prerequisite: 3-D Media major or consent of instructor

Take 9 units from the following courses:
ART 355, ART 356, ART 359A, ART 359B, or ART 499J

Take 9 units AH
Take 6 units ART outside the specialization

**Option in Ceramics (132 units)**

Students who fall below a GPA of 3.0 in upper division courses in Ceramics for two consecutive semesters will be removed from this B.F.A. program.

**Requirements**

**Lower Division:**

Take all of the following courses:

**AH 111A Foundation Art History I (3)**
"C" or better  
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

**AH 111B Foundation Art History II (3)**
"C" or better  
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

**ART 130 Foundation Two Dimensional (3)**
"C" or better  
Prerequisite: None

**ART 131 Foundation Three Dimensional (3)**
"C" or better  
Prerequisite: None

**ART 181 Foundation Drawing (3)**
Prerequisite: None

**ART 251A Introduction to Ceramics: Handbuilding (3)**
Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131

**ART 287 Introduction to Painting (3)**
Prerequisites: ART 130, ART 181

Take 2 units of the following:
**ART 101 Artists in Their Own Words (1)**
Prerequisite/Corequisite: One GE Foundation course.

Take 1 unit of the following:
**ART 121 Safety & Sustainable Practices for Studio Artists (1)**
Prerequisite/Corequisite: One GE Foundation course.

Take one of the following courses:
**AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3);**

Take one of the following courses:
**ART 184 Foundation Life Drawing (3)**
Prerequisites: ART 181

**ART 261 Introduction to Life Sculpture (3)**
Prerequisite/Corequisite: ART 131 or ART 181 or consent of instructor.

**Upper Division:**

Take all of the following courses:
**ART 311 Writing about Art (3)**
Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

**ART 341A Intermediate Ceramics: Handbuilding (3)**
Prerequisites: ART 251A

**ART 341B Intermediate Ceramics: Wheel Throwing (3)**
Prerequisites: ART 251B

**ART 343A Ceramics Sculpture (3)**
Prerequisites: ART 341A

**ART 343B Advanced Wheel Throwing (3)**
Prerequisites: ART 341B

**ART 352A Ceramics: Glaze Technology (3)**
Prerequisites: ART 131, ART 251A or ART 251B; AH 111A or AH 111B.

**ART 352B Ceramics Plaster Shop (3)**
Prerequisites: ART 251A or ART 251B; AH 111A or AH 111B.

**ART 451A Advanced Ceramics (3)**
Prerequisite: BFA Ceramic major; ART 343A or ART 343B; completion of all 100 level degree requirements for ART and AH or consent of instructor.

**ART 451B Advanced Ceramics (3)**
Prerequisite: BFA Ceramic major; ART 451A or consent of instructor.

**ART 491A Ceramics: Senior Project (1)**
Prerequisite: ART 451A or ART 451B or consent of instructor

Take 9 units of AH. Only 3 units may be AH 438, AH 439 or AH 441
Take 3 units Upper Division ART.
Take 6 units ART outside the specialization.
Option in Drawing and Painting (132 units)

Students who fall below a GPA of 3.0 in upper division courses in Drawing and Painting for two consecutive semesters will be removed from this B.F.A. program.

Requirements

Lower Division:

Take all of the following course:

- AH 111A Foundation Art History I (3)
  **“C” or better**
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

- AH 111B Foundation Art History II (3)
  **“C” or better**
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

- ART 130 Foundation Two-Dimensional (3)
  **“C” or better**
  Prerequisite: None

- ART 131 Foundation Three Dimensional (3)
  **“C” or better**
  Prerequisite: None

- ART 181 Foundation Drawing (3)
  Prerequisite: None

- ART 184 Foundation Two-Dimensional (3)
  **“C” or better**
  Prerequisite: None

- ART 184 Foundation Life Drawing (3)
  Prerequisites: ART 181

- ART 287 Introduction to Painting (3)
  Prerequisites: ART 130, ART 181

Take 2 units of the following:

- ART 101 Artists in Their Own Words (1)
  Prerequisite/Corequisite: One GE Foundation course.

Take 1 unit of the following:

- ART 121 Safety and Sustainable Practices for Studio Artists (1)
  Prerequisite/Corequisite: One GE Foundation course.

Take one of the following courses:

- AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3)

Take one course selected from:

- ART 251A Introduction to Ceramics: Handbuilding (3)
  Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131

- ART 251B Introduction to Ceramics: Wheel Throwing (3)
  Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131

- ART 254 Introduction to Wood (3)
  Prerequisites/Corequisites: ART 121, ART 131, or consent of instructor.

- ART 257 Introduction to Metals (3)
  Prerequisites/Corequisites: ART 121, ART 131, or consent of instructor.

- ART 261 Introduction to Life Sculpture (3)
  Prerequisite/Corequisite: ART 131 or ART 181 or consent of instructor.

- ART 263 Introduction to Sculpture/4D (3)
  Prerequisites: ART 131 or consent of instructor

- ART 265 Introduction to Fiber (3)
  Prerequisite/Corequisite: ART 130, ART 131, or consent of instructor.

Upper Division:

Take 3 units from the following courses:

- ART 311 Writing about Art (3)
  Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing intensive Capstone.

- ART 333 Global Art Scenes (3)
  Prerequisites: Completion of GE Foundation and Upper Division standing.

Take all of the following courses:

- ART 381 Intermediate Drawing (3)
  Prerequisites: ART 130, ART 181, ART 184; AH 111A, AH 111B

- ART 383 Life Painting (3)
  Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B

- ART 384 Intermediate Life Drawing (3)
  Prerequisites: ART 130, ART 181, ART 184; AH 111A, AH 111B

- ART 387 Painting (3)
  Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B

- ART 388 Advanced Studies in Color (3)
  Prerequisites/Corequisites: ART 130, ART 287, AH 111A, AH 111B.

- ART 491G Drawing and Painting Senior Project (1)
  Prerequisite: ART 496A. Corequisite: ART 496B.

- ART 496A BFA Capstone: Drawing and Painting (3)
  Prerequisites: Drawing and Painting major. Completion of 6 to 12 units of required 400 level classes in Drawing and Painting including (but not limited to) ART 481 or ART 487 and ART 483 or ART 484

- ART 496B BFA Capstone: Drawing and Painting (3)
  Prerequisite: ART 496A. Corequisite: ART 491G

Take 9 units from the following courses:

- ART 481 Advanced Drawing (3)
  Prerequisite: ART 381

- ART 483 Advanced Life Painting (3)
  Prerequisite: ART 383

- ART 484 Advanced Life Drawing (3)
  Prerequisites: ART 384 or consent of instructor.

- ART 487 Advanced Painting (3)
  Prerequisite: ART 387

Take 9 units from the following courses:

- ART 481 Advanced Drawing (3)
  Prerequisite: ART 381

- ART 483 Advanced Life Painting (3)
  Prerequisite: ART 383

- ART 484 Advanced Life Drawing (3)
  Prerequisites: ART 384 or consent of instructor.

- ART 487 Advanced Painting (3)
  Prerequisite: ART 387

- ART 492F Concentrated Studies in Life Drawing (3)
  Prerequisites/Corequisites: ART 384 or consent of instructor

- ART 492G Concentrated Studies in Abstract Painting (3)
  Prerequisites/Corequisites: ART 387 or consent of instructor

- ART 492Z Concentrated Studies in Life Painting (3)
  Prerequisite: ART 383 or consent of instructor.
Take one of the following courses:
- ART 481 Advanced Drawing (3)
  Prerequisite: ART 381
- ART 487 Advanced Painting (3)
  Prerequisite: ART 387

Take 6 units of upper division AH.
Take 3 units upper division AH or ART outside the specialization

Option in Graphic Design (132 units)

Students who fall below a GPA of 3.2 in upper division courses in Graphic Design for two consecutive semesters will be removed from this B.F.A. program.

Requirements

Lower Division:
Take all of the following courses:
- AH 111A Foundation Art History I (3)
  "C" or better
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
- AH 111B Foundation Art History II (3)
  "C" or better
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
- ART 130 Foundation Two Dimensional (3)
  "C" or better
  Prerequisite: None
- ART 131 Foundation Three Dimensional (3)
  "C" or better
  Prerequisite: None
- ART 181 Foundation Drawing (3)
  Prerequisite: None
- ART 184 Foundation Life Drawing (3)
  Prerequisites: ART 181
- ART 223 Introduction to Typography (3)
  Prerequisite: For Art majors: ART 130, ART 181. For Design majors: DESN 120A and DESN 132A.

Take 2 units of the following:
- ART 101 Artists in Their Own Words (1)
  Prerequisite/Corequisite: One GE Foundation course.

Take 1 unit of the following:
- ART 121 Safety & Sustainable Practices for Studio Artists (1)
  Prerequisite/Corequisite: One GE Foundation course.

Take one of the following courses:
- AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3)

Take one of the following courses:
- ART 132 Foundation Color Theory (3)
  Prerequisite/Corequisite: ART 130
- ART 241 Introduction to Photography (3)
  Prerequisite: One G.E. Foundation Course
- ART 270 Introduction to Printmaking (3)
  Prerequisite: ART 181 or permission of instructor.
- ART 287 Introduction to Painting (3)
  Prerequisites: ART 130, ART 181

Upper Division:
Take all of the following courses:
- ART 318 Type II: Intermediate Typography (3)
  Prerequisites: For Art Majors: ART 130, ART 131, ART 181, ART 184, ART 223; ART 132, ART 241, ART 270 or ART 287; AH 111A, AH 111B or consent of instructor. For Design Majors:
- ART 321 Graphic Design I: Introduction to Graphic Design (3)
  Prerequisites: For Art Majors: ART 130, ART 131, ART 181, ART 184, ART 223; ART 132, ART 241, ART 270, or ART 287; AH 111A, AH 111B. For Design Majors: ART 223; DESN 120A, DESN 120B, DESN 132A, DESN 132B; AH 111A, AH 111B
- ART 327 Graphic Design II: Intermediate Graphic Design (3)
  Prerequisites: ART 223, ART 318, ART 321
- ART 331 Advertising I: Introduction to Concept Development (3)
  Prerequisites: ART 130, ART 131, ART 181, ART 184, ART 223, ART 318, ART 321; ART 132, ART 241, ART 270, or ART 287; AH 111A, AH 111B
- ART 334 Graphic Design III: Exploration and Experimentation (3)
  Prerequisites: ART 327 and 331, BFA Graphic Design Major or consent of instructor.
- ART 335 Advertising II: Intermediate Concept Development and Art Direction (3)
  Prerequisites: ART 327 and 331, BFA Graphic Design Major or consent of instructor.
- ART 336 Graphic Design IV: Development and Analysis (3)
  Prerequisites: ART 334, ART 335, or consent of instructor
- ART 337 Graphic Design V: Packaging Design (3)
  Prerequisites: BFA Graphic Design Major and ART 321, ART 334, ART 335, or consent of Instructor
- ART 419 Media Design: 5D; Designing the Future (3)
  Prerequisite: BFA Graphic Design Major or consent of instructor
- ART 423 Graphic Design VI: Advanced Topics (3)
  Prerequisites: ART 327 and 331, BFA Graphic Design Major of consent of instructor
- ART 424 Advertising III: Advanced Topics (3)
  Prerequisites: ART 335, ART 423

Take 6 units from the following courses:
- ART 365, ART 366, ART 420, ART 421, ART 442, ART 486, ART 499S

Take 3 units from the following courses:
- ART 311 Writing about Art (3)
  Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
- ART 333 Global Art Scenes (3)
  Prerequisites: Completion of GE Foundation and Upper Division standing

Take AH 444 History of Graphic Design (3)
Take 3 units of Art History (AH)
Take 3 units ART outside the specialization
Option in Illustration/Animation (132 units)

Students who fall below a GPA of 3.0 in upper division courses in Illustration/Animation for two consecutive semesters will be removed from this B.F.A. program.

Requirements

Lower Division:

Take all the following courses:

- AH 111A Foundation Art History I (3) **"C" or better**
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
- AH 111B Foundation Art History II (3) **"C" or better**
  Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
- ART 130 Foundation Two Dimensional (3) **"C" or better**
  Prerequisite: None
- ART 131 Foundation Three Dimensional (3) **"C" or better**
  Prerequisite: None
- ART 181 Foundation Drawing (3)
  Prerequisite: None
- ART 184 Foundation Life Drawing (3)
  Prerequisites: ART 181
- ART 271 Introduction to Rendering (3)
  Prerequisite: ART 130, ART 181.
- ART 287 Introduction to Painting (3)
  Prerequisites: ART 130, ART 181

Take (3) units of the following:
- 100-level AH

For Illustration Track also take:
- ART 223 Introduction to Typography (3)
  Prerequisites: For Art majors: ART 130, ART 181. For Design majors: DESN 120A and DESN 132A

For Animation Track also take:
- ART 227 History of Animation (3)
  Prerequisites: Completion of GE A1 requirement; sophomore standing
- ART 291 Introduction to Animation (3)
  Prerequisites: ART 130, ART 181

Take (3) units of the following:

- AH 111A Foundation Art History I (3) **"C" or better**
- AH 111B Foundation Art History II (3) **"C" or better**

Upper Division:

Take all the following:

- ART 371A Illustration (3)
  Prerequisites/Corequisites: ART 130, ART 131, ART 181, ART 184, ART 287; AH 111A, AH 111B.
- ART 372 Anatomy for Artists (3)
  Prerequisites: ART 130, ART 131, ART 181, ART 184; AH 111A, AH 111B.
- ART 491E Illustration/Animation Senior Project (1)
  Prerequisites: Senior Illustration/Animation Major
  Prerequisite(s)/Corequisite(s): For Illustration Track Majors: ART 471B. For Animation Track Majors: ART 499E
- ART 311 Writing about Art (3)
  Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Take 6 units AH

Animation Track

Take all the following courses:

- ART 390 Drawing: Figures in Context (3)
  Prerequisites: ART 371A or consent of instructor
- ART 391 Animation 1 (3)
  Prerequisites: ART 130, ART 181, ART 291 or consent of instructor.
  Prerequisite(s)/Corequisite(s): ART 131, ART 184, ART 287; AH 111A, AH 111B
- ART 472 Storyboarding for Film and Television (3)
  Prerequisites: BFA Illustration/Animation major.
  For Illustration Track: ART 371B, ART 372, or consent of instructor.
  For Animation Track: ART 391; ART 392 or ART 476; or consent of instructor.
- ART 499E Special Studies in Animation (3)
  Prerequisite: BFA Illustration/Animation Major, ART 311, or consent of instructor.

Take 3 units from the following courses:

- ART 392 Animation 2 (3)
  Prerequisite: ART 391
- ART 476 Experimental Animation 1 (3)
  Prerequisites: ART 130, ART 131, ART 181, ART 184

Take 3 units from the following courses:

- ART 393 Character Design (3)
  Prerequisites/corequisites: ART 371A or consent of instructor
- ART 418 Visual Development (3)
  Prerequisites: BFA Illustration/Animation Major.
  For Illustration Track: ART 371B, ART 372; or consent of instructor.
  For Animation Track: ART 391; ART 392 or ART 476; or consent of instructor.

Take 6 units from the following courses:

- ART 392, ART 393, ART 426, ART 476, ART 482

Take 9 units from the following courses:

- ART 261, ART 363C, ART 371B, ART 373, ART 382, ART 383, ART 384, ART 385, ART 416, ART 417, ART 418, ART 427, ART 478, ART 499E

Illustration Track

Take all the following courses:

- ART 371B Illustration (3)
  Prerequisite: ART 371A. Prerequisites/Corequisites: ART 223 or 291 and ART 271.
- ART 382 Production for Fine Arts (3)
  Prerequisites: ART 223 or consent of instructor
- ART 383 Life Painting (3)
  Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B
- ART 471A Advanced Illustration (3)
- ART 471B Advanced Illustration (3)
- ART 482 Sequential Imagery (3)
  Prerequisite: For Illustration Track majors: ART 223, ART 371B.
  For Animation Track majors: ART 371A.

Take one of the following courses:

- ART 374A Biomedical Rendering (3)
  Prerequisites: ART 130, ART 184, ART 287; AH 111A, AH 111B; or consent of instructor
- ART 499F Special Studies in Illustration (3)
  Prerequisite: Illustration major or consent of instructor

Take 9 units from the following courses:

- ART 291, ART 321, ART 373, ART 385, ART 418, ART 472, ART 476, ART 483
Take 3 units ART outside the specialization

Option in Art Photography (132 units)

B.F.A. students who fall below a GPA of 3.0 in upper division courses in Photography for two consecutive semesters will be removed from this BFA program.

Requirements

Lower Division:
Take all the following courses:
AH 111A Foundation Art History I (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
AH 111B Foundation Art History II (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
Take one of the following courses:
AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3)
Take 2 units of the following:
ART 101 Artists in Their Own Words (1)
Prerequisite/Corequisite: One GE Foundation course.
Take 1 unit of the following:
ART 121 Safety and Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.
Take all the following courses:
ART 130 Foundation Two Dimensional (3)
**“C” or better
Prerequisite: None
ART 131 Foundation Three Dimensional (3)
**“C” or better
Prerequisite: None
ART 181 Foundation Drawing (3)
Prerequisite: None
ART 241 Introduction to Photography (3)
Prerequisite: One G.E. Foundation Course

Upper Division:
Take all the following courses:
AH 400 19th Century Photography (3)
Prerequisites: AH 111B or consent of instructor
AH 411 20th Century Photography (3)
Prerequisites: AH 111B or consent of instructor
ART 340 Intermediate Photography (3)
Prerequisites: ART 130, 181, 241, and AH 111A or 111B
ART 342A Contemporary Practices in Color Photography (3)
Prerequisite/Corequisite: ART 340
ART 414 Documentary Photography (3)
Prerequisites: ART 340, ART 444, or consent of instructor
ART 444 Advanced Black and White Photography (3)
Prerequisite: ART 340
ART 447A Photography Studio Specialties (3)
Prerequisites: ART 340
ART 447B Advanced Studio Lighting (3)
Prerequisites: ART 241, ART 340, and ART 447A
ART 448 The Moving Image (3)
Prerequisites: ART 342A or consent of instructor
ART 449 Experimental Practices in Photography (3)
Prerequisites: ART 340
ART 473 Seminar in Photo-Based Art (3)
Prerequisite: ART 444 or consent of instructor.
ART 491C Senior Project (1)
Prerequisite: None
ART 499V Special Studies in Art Photography (3)
Prerequisites: ART 342A or consent of instructor.
Take 3 units from the following courses:
AH 438, AH 439, AH 441
Take 6 units ART outside specialization (lower or upper division)
Take one Art or Art History Capstone Course

Option in Printmaking (132 units)

Students who fall below a GPA of 3.0 in upper division courses in Printmaking for two consecutive semesters will be removed from this B.F.A. program.

Requirements

Lower Division:
Take all the following courses:
AH 111A Foundation Art History I (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
AH 111B Foundation Art History II (3)
**“C” or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
ART 130 Foundation Two Dimensional (3)
**“C” or better
Prerequisite: None
ART 131 Foundation Three Dimensional (3)
**“C” or better
Prerequisite: None
ART 181 Foundation Drawing (3)
Prerequisite: None
ART 241 Introduction to Photography (3)
Prerequisite: One G.E. Foundation Course

Take one course from the following:
ART 101 Artists in Their Own Words (1)
Prerequisite/Corequisite: One GE Foundation course.
ART 121 Safety and Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.
Take 2 units of the following:
ART 132 Foundation Color Theory (3)
Prerequisite/Corequisite: ART 130
ART 270 Introduction to Printmaking (3)
Prerequisites: ART 181 or permission of instructor.
ART 287 Introduction to Painting (3)
Prerequisites: ART 130, ART 181

Take 2 units of the following:
ART 101 Artists in Their Own Words (1)
Prerequisite/Corequisite: One GE Foundation course.

Take 1 unit of the following:
ART 121 Safety & Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.

Take one of the following courses:
AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3)

Take one of the following:
ART 149 Introduction to Computer Art (3)
Prerequisites: ART 130
ART 241 Introduction to Photography (3)
Prerequisites: One G.E. Foundation Course
Upper Division:

Take 3 units from the following courses:

ART 311 Writing about Art (3)
Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

ART 333 Global Art Scenes (3)
Prerequisites: Completion of GE Foundation and Upper Division standing

Take all of the following courses:

ART 370 Printmaking (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 376 Printmaking: Relief Printing (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 377 Printmaking: Silkscreen (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 378 Printmaking: Etching (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 379 Printmaking: Lithography (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 381 Intermediate Drawing (3)
Prerequisites: ART 130, ART 181, ART 184; AH 111A, AH 111B

ART 475 Printmaking: Photo and Digital Processes (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 480 Printmaking: Monotype/Monoprint (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B

ART 491P Printmaking: Senior Project (1)
Prerequisites: None

ART 499R Special Studies in Printmaking (6)
Prerequisite: Printmaking major or consent of instructor

AH 365 History of Prints and Drawings (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor

AH 439 Twentieth Century Art from 1945 (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor

Take 3 units elective upper division Art History (AH)
Take 9 units ART outside the specialization

Option in Sculpture (132 units)

Students who fall below a GPA of 3.0 in upper division courses in Sculpture for two consecutive semesters will be removed from this B.F.A. program.

Requirements

Take all of the following courses:

AH 111A Foundation Art History I (3)
"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

AH 111B Foundation Art History II (3)
"C" or better
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

ART 130 Foundation Two Dimensional (3)
"C" or better
Prerequisite: None

ART 131 Foundation Three Dimensional (3)

"C" or better
Prerequisite: None

ART 261 Introduction to Life Sculpture (3)
Prerequisites: ART 131 or ART 181 or consent of instructor.

ART 263 Introduction to Sculpture/4D (3)
Prerequisites: ART 131 or consent of instructor.

Take 2 units of the following:

ART 101 Artists in Their Own Words (1)
Prerequisites: Completion of GE Foundation course.

Take 1 unit of the following:

ART 121 Safety & Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.

Take one of the following courses:

AH 112 (3), AH 113A (3), AH 113B (3), AH 114 (3), AH 116 (3);

Take one of the following courses:

ART 181 Foundation Drawing (3)
Prerequisite: None

ART 184 Foundation Life Drawing (3)
Prerequisites: ART 181

Take 6 units from the following courses:

ART 132, ART 149, ART 181, ART 223, ART 241, ART 251A, ART 251B, ART 265, ART 270, ART 271, ART 287

Upper Division:

Take 3 units from the following courses:

ART 311 Writing about Art (3)
Prerequisites: Art Major or consent of instructor. GE Foundation completed, upper division standing. You must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

ART 333 Global Art Scenes (3)

Take all of the following courses:

ART 360A Sculpture/4D: Intermediate (3)
Prerequisites: ART 263; AH 111A or AH 111B, or consent of instructor.

ART 363A Sculpture/4D: Fabrication Lab A (3)
Prerequisites/Corequisites: ART 131; AH 111A or AH 111B, or consent of instructor.

ART 460A Advanced Sculpture (3)
Prerequisites: ART 360A or consent of instructor.

ART 474 Seminar in Sculpture and Time-Based Art (3)
Prerequisites: ART 261 or ART 263, or consent of instructor.

ART 491F Sculpture/4D Senior Project (1)
Prerequisites: Senior Sculpture major; consent of instructor

Take 6 units from the following courses:

AH 438, AH 439, AH 441

Take 6 units from the following courses:


Take 3 units of any upper division ART course.

Track A

Take 3 of the following Sculpture/4D courses:

ART 363B Sculpture/4D: Fabrication Lab B (3)
Prerequisite: ART 131; AH 111A or AH 111B, or consent of instructor.
ART 363C Digital Fabrication Lab (3)
Prerequisite: ART 131; AH 111A or AH 111B, or consent of instructor.

ART 367A Sculpture/4D: Mold Making Lab (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B.

ART 367B Sculpture/4D: Foundry Lab (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B, or consent of instructor.

Track B
Take 3 of the following Sculpture/4D courses;
ART 363C Digital Fabrication Lab (3)
Prerequisite: ART 131; AH 111A or AH 111B, or consent of instructor.

ART 364 Sculpture/4D: Electronics, Mechanics, Kinetics (3)
Prerequisites: AH 111A, AH 111B; ART 130, ART 131; ART 261 or ART 263; or consent of instructor.

ART 436A Video Art (3)
Prerequisites: None

ART 450A Sculpture/4D: Intermedia/New Genres (3)
Prerequisites: ART 241 or ART 263, or consent of instructor.

Certificate in Biomedical Art
This is an interdisciplinary program sponsored by the Art and Biological Sciences departments. Special permission is not required for a student to pursue the Certificate in Biomedical Art, however it is only available to students who are presently enrolled in a degree program in the biological sciences or in art at CSULB.

The student may apply for certification upon completion of the following:

Requirements
1. A major in art or biological sciences;
2. A 2.75 overall GPA and 3.25 in the major;

Take all the following courses (38 units):
ART 149 Foundation Computer Art (3)
Prerequisite: ART 130

ART 181 Foundation Drawing (3)
Prerequisite: None

ART 184 Foundation Life Drawing (3)
Prerequisite: ART 181

ART 271 Introduction to Rendering (3)
Prerequisites: ART 130, ART 181

ART 372 Anatomy for Artists (3)
Prerequisites: ART 130, ART 131, ART 181, ART 184; AH 111A, AH 111B

ART 374A Biomedical Rendering (3)
Prerequisites: ART 130, ART 184, ART 287; AH 111A, AH 111B; or consent of instructor

ART 374B Biomedical Rendering (3)
Prerequisites: ART 130, ART 184, ART 287; AH 111A, AH 111B; or consent of instructor

ART 426 Computer Animation 1 (3)
Prerequisite: ART 391 or ART 476 or consent of instructor

ART 476 Experimental Animation 1 (3)
Prerequisites: For ART 476: ART 130, ART 131, ART 181, ART 184. For ART 576: graduate student in Art or consent of instructor

ART 499F Special Studies in Illustration (3)
Prerequisite: Illustration major or consent of instructor

BIOL 200 General Biology (4)
Prerequisites: GE Foundation requirements

BIOL 208 Human Anatomy (4)
Prerequisites: Grade of "C" or better in one of the following:
ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

Note: BIOL 200 waived for Biology majors.

Questions may be addressed to: Robin Richesson, School of Art, robin.richesson@csulb.edu (562) 985-9068 or Kelly Young, Department of Biological Sciences, kelly.young@csulb.edu (562) 985-4859.

Graduate Programs

Master of Arts in Art-
Master of Fine Arts in Art

School Review Process
Admission to a degree program at CSULB is a two-part process that requires application to and acceptance by both the University and the School of Art into a specific degree program. (See the detailed information on CSULB graduate application and admission requirements earlier in this catalog.)

For graduate programs, the School of Art accepts applications for Fall admission only. Application forms and deadlines are available on the web (www.art.csulb.edu). School of Art application materials must be sent to the School of Art Advising Center, FA4 - 102.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

There is a $55.00 fee for the University application process. (Do not send the School of Art this fee.)

Some art programs may conduct applicant interviews, in which case program faculty will contact the applicant directly. Acceptance decisions are normally sent out by the second week of April.

Acceptance to Degree Program in Art
Graduate applications are reviewed within the School of Art by appropriate faculty. The admissions process for all graduate programs is highly competitive, and only those applicants who are recommended by the reviewing faculty may be admitted. Applicants are admitted as either Classified or Conditionally Classified. A Classified Graduate Student has been recommended for admission, and has satisfied all prerequisites. A Conditionally Classified Graduate Student has been recommended for admission, but has outstanding prerequisites to complete.

Acceptance is not complete until the applicant has received both notification of acceptance from the School of Art and official notification from the CSULB Office of Enrollment Services.

All applicants must be accepted by the School of Art in
order to be officially accepted by the University. There is no fee for the school's application process.

International Students must be accepted by the School of Art and pass the TOEFL examination (minimum score of 550) before they can be admitted to the University. International students must apply to CSULB through the Center for International Education at (562) 985-5476.

CSU general requirements include: a bachelor's degree from a regionally accredited institution; a grade point average of at least 2.5 in the last 60 semester units taken; and good standing at the last college attended.

MA and MFA Prerequisites

An applicant may be accepted if, in addition to having satisfied specific prerequisites set by the School of Art for each degree concentration, the applicant has satisfied the minimum university standards found in the Admission section of this catalog.

The School of Art requires a minimum GPA of 3.0 in upper-division (junior and senior level) art prerequisite units.

Special Action: In rare and compelling circumstances, an applicant who does not qualify for admission under the previous provisions may be admitted by special action if on recommendation of the appropriate faculty of the school/college concerned and in the judgment of the Associate Vice President for Graduate and Undergraduate Programs or his/her designee there exists acceptable evidence that the applicant possesses sufficient academic, professional, and other potential pertinent to her/his educational objectives to merit such action, as shown through aptitude scores, recent academic performance, and experiential background.

Concentrations Prerequisites

An applicant who has deficiencies in prerequisites for a concentration, but who in the judgment of the School of Art can meet these prerequisites with additional preparation specified at time of admission, may be admitted with conditionally classified graduate standing. Students who have deficiencies in prerequisites for a concentration, but who are willing to engage in additional preparation to meet prerequisites, may apply. 

NOTE: Courses taken as prerequisites for a graduate degree may not be counted toward the graduate degree program of study.

Art Education Prerequisites

Applicants must complete 36 units of coursework approved by the Art Education faculty and must have a minimum 3.0 GPA in prerequisite courses.

Take 15 units upper-division units approved by the Art Education faculty
Take 9 upper-division units of Art or Education electives
Take 12 units AH (6 may be lower division, 6 must be upper division)

Art History Prerequisites

Applicants must complete the following prerequisite coursework. Equivalents to listed prerequisites must be approved by the Art History faculty:

Take 3 units from the following courses: AH 448, AH 449, or AH 450 (theory/criticism) or the equivalent
Take 9 units additional upper-division Art or Art History

Take 9 units upper-division Art or Art History
Take four sequential semesters (or the equivalent) of college-level French, German, or a language appropriate to the applicant's intended area of research with a 3.0 grade point average or better in the language courses.

MA Art History applicants should have completed prerequisite coursework prior to beginning coursework in the MA program.

Applicants must have maintained a 3.0 GPA or better in all prerequisite coursework. Prerequisite coursework with grades lower than a C or grades of "pass" or "credit" will not be considered as having satisfied stated prerequisites.

The core Art History faculty functions as a committee of the whole in reviewing all materials and information in the application file. Applicants who have been recommended for admission by the Art History faculty, and who have met all university entrance requirements and have fulfilled all MA Art History prerequisites, shall be admitted with classified status.

In some instances, applicants who have not met all prerequisites may, upon the recommendation of the Art History faculty, be admitted to the MA program on a conditional basis, but must complete all prerequisites by the end of the second semester in the MA program. Students may complete the foreign language prerequisite by completing the required coursework, or by passing a departmentally administered foreign language exam in French, German, or other pre-approved language. Completion of all prerequisites by the end of the second semester is a requirement for the student to advance to candidacy and continue study in the MA program.

Studio Art Prerequisites

The School of Art prefers, but does not require, that Studio Art applicants have undergraduate degrees in art. Application to our graduate programs is competitive and most applicants to the studio programs will have an undergraduate degree in art, many with a BFA in their chosen media. For Studio Art admissions, all required application materials are mandatory in order for the applicant to be considered, but the part of the application that is given the most weight is the portfolio of work. The School of Art invites all applicants who feel they have strong portfolios to apply. If faculty feel the application is strong, but the applicant needs additional preparatory work, the School of Art may admit the applicant with conditionally classified graduate standing, with specific prerequisites stated on a case-by-case basis at the time of admission.

The School's Application Requirements

Prior to the fall term for which the applicant seeks admission, applicant must submit the school's application materials as follows:

Art Education: School of Art application, statement of purpose, writing sample, portfolio of studio work, transcripts, and two letters of recommendation
Art History: School of Art application, statement of purpose, writing sample, transcripts, and two letters of recommendation
Studio Art: School of Art application, statement of purpose, portfolio of studio work, transcripts, and two letters of recommendation

Applicants may contact the School of Art Graduate Advisor for additional information about applying. Additionally, faculty contacts for each of the programs can be found on the school website.
Transcripts

When you formally apply to the University, one official (sealed) set is required; send to Enrollment Services.

Transfer Units

Transfer units are allowed on a case-by-case basis. With faculty approval, up to 12 post-baccalaureate units from another university may be accepted into the MA degree program and up to 24 units (for example, from a previous MA degree) into the MFA degree program. In the case of an existing MA degree from CSULB with a concentration in Studio Art, up to 30 units may be accepted into the MFA degree.

MA and MFA Degree Requirements

1. A minimum overall GPA of 3.0, with no grade below a "C".
2. Successful fulfillment of the Graduation Writing Assessment Requirement (GWAR) by passing the Writing Proficiency Examination (WPE), usually completed in the first semester in residence at CSULB and required to be fulfilled prior to Advancement to Candidacy. Students unable to pass the WPE may be able to fulfill the requirement by completing a special GWAR course.
3. Successful completion of an Advancement to Candidacy review. Reviews generally occur when a student has completed between one third and one half of the units required for the degree, and require the submission of a complete list of coursework for the degree. Additional advancement requirements:
   - Art Education majors satisfy assigned written topics and prepare an oral defense of their research.
   - Art History majors present a qualifying paper and satisfy the language requirement in either French or German (or an approved substitution).
   - Studio Art majors participate in a group exhibition in the School of Art galleries and present an oral defense of their work.
If all scheduled units for the MA or MFA degree have been completed but the final written component has not been approved and submitted, registration in GS-700 (0 unit, no credit) through CCPE is required in order to maintain enrollment until the semester of graduation. Care should be taken not to exceed the University limit of seven years for all masters’ degrees.

Additional information may be found in the "School of Art Graduate Guidelines," given to each student accepted into a master’s program.

Art Education Concentration for the MA

32 approved units to include:
Take one of the following:

- ART 509A Research in Art Education (2)
  Prerequisites: Graduate student in Art or consent of instructor.
- ART 509B Research in Art Education (2)
  Prerequisites: Graduate student in Art or consent of instructor.
Take both of the following:

- ART 601A Seminar in Art Education (3)
  Prerequisite: Graduate student in Art Education or consent of instructor.
- ART 601B Seminar in Art Education (3)
  Prerequisite: Graduate student in Art Education or consent of instructor.

Take one of the following:

- ART 695 Graduate Studies: Field Problems (6)
  Prerequisites: None
- ART 697 Graduate Studies: Directed (6)
  Prerequisites: None
Take 3 units of graduate level Art History
Take 3 units of approved graduate or upper-division coursework
Take 6 units elective Art, Art Education, or Art History

Museum Studies Track

Take all of the following:

- AH 546 Art History Methodologies and Writing (3)
  Prerequisite: Graduate standing in Art History or consent of instructor.
- AH 547 Historiography of Art History (3)
  Prerequisites: Graduate standing in Art History or consent of instructor

Art History Concentration for the MA Core Requirements

36 approved units to include:

Take both of the following courses:

- AH 530 Introduction to Curatorial Practices (3)
  Prerequisite: Consent of instructor.
- AH 531 History of Museums and Exhibitions (3)
  Prerequisite: Consent of instructor.

Take 6 units Art or Art History
Take 3 units of the following:

- AH 694 Graduate Studies: Directed Research in Thesis Topic (3)
  Prerequisites: Art History MA Student and Consent of Thesis Committee Chair.
Take 6 units AH 698 Thesis as culminating experience within degree program.

Art History Track

Take 6 units of the following:

- AH 597 Seminar in Art History (3)
  Prerequisite: Consent of instructor.

Take 9 units in graduate-level Art History in area of specialization.

Museum Studies Track

Take all of the following:

- AH 530 Introduction to Curatorial Practices (3)
  Prerequisite: Graduate standing or consent of instructor.
- AH 531 History of Museums and Exhibitions (3)
  Prerequisite: Graduate standing or consent of instructor.
- AH 542 Internship in Museum Studies (3)
  Prerequisite: AH 530 or consent of instructor.
- AH 545A Museum-Gallery Practices (3)
  Prerequisite: Graduate standing or consent of instructor.
AH 545B Museum-Gallery Practices (3)
Prerequisite: AH 545A or consent of instructor.

Twenty-four of the 36 required units must be 500/600 level courses taken at CSULB.

Graduate-level or upper-division courses in other CSULB departments may be approved as course substitutions with approval of student's Thesis Committee.

Transferred units are allowed on a case-by-case basis. A minimum of 70% of units applied to degree must be 500/600 level courses taken at CSULB.

Undergraduate coursework applied to degree must be upper-division (300 or 400 level). Undergraduate courses may not be used as substitutes for any course specifically required by course number for degree. All double-numbered (400-level/500-level) courses applied to degree must be taken at the 500 level. All coursework applied to degree must be approved.

In addition to fulfilling university requirements for advancement to candidacy, MA Art History students must also complete the Writing Proficiency Exam (WPE), an approved qualifying research paper, and all unfinished degree program prerequisites. Advancement to candidacy signifies approval of a plan of study for completion of coursework and the production and supervision of the student's thesis. Students in the MA program are expected to complete all requirements for advancement by the end of the second semester of study in the program.

**Studio Art Concentration for the MA**

33 approved units to include:

- Take 21 units of Art
- Take 6 units of graduate-level Art History
- Take 6 units of the following:
  - ART 698B Project (culminating degree experience)
  Prerequisite: Advancement to Candidacy and an approved project statement. Execution and completion of an approved Studio Project and Project Report for the MA degree.

  Transferred units are allowed on a case-by-case basis. A minimum of 70% of units applied to degree must be 500 and 600 level courses taken at CSULB, including double-numbered courses (400/500). Undergraduate coursework applied to degree must be upper-division (300 or 400 level). Undergraduate courses may not be used as substitutes for any course specifically required by course number for degree. All double-numbered (400-level/500-level) courses applied to degree must be taken at the 500 level. All coursework applied to degree must be approved.

**Studio Art Concentration for the MFA**

60 units of approved graduate units.

Transferred units are allowed on a case-by-case basis. A minimum of 70% of units applied to degree must be 500 and 600 level courses taken at CSULB, including double-numbered courses (400/500).

Undergraduate coursework applied to degree must be upper-division (300 or 400 level). Undergraduate courses may not be used as substitutes for any course specifically required by course number for degree. All double-numbered (400-level/500-level) courses applied to degree must be taken at the 500 level. All coursework applied to degree must be approved.

At least 39 units must be in studio courses. No more than 3 units of ART 693 (teaching internship) may be applied to degree.

Students are admitted into discipline-specific tracks. All students take a core of 21 units. Each student takes an additional 39 units of approved coursework according to the track into which the student was admitted.

Additional information, expectations, recommendations and guidelines for each track are included in the “School of Art Graduate Guidelines” and are available on the School of Art web-site. www.art.csulb.edu.

**MFA Core Requirements**

3 units of graduate-level Art History.

12 units of ART 694 (Graduate Studies: Directed Studio) taken with members of student's Project Committee beginning five semesters prior to completion of degree, or semester prior to advancement, which ever comes first. (Student must continue to enroll in 3 units of ART 694 per semester for all semesters between advancement and semester of MFA project.)

6 units of ART 699 (Graduate Studies: MFA Project) taken in the final semester with members of student’s Project Committee.

**MFA Tracks**

In addition to the MFA Core requirements, each MFA student takes 39 additional approved units according to the following discipline-based tracks into which students are admitted.

NOTE: All 597, 598 and 599-numbered courses are studio-oriented variable-topic graduate courses, each with a discipline-specific focus, but with specific topic and structure varying from term to term.

**Ceramics Track:**

- Take 12 units from the following:
  - ART 597A, ART 598A, ART 599A
- Take 6 units from any of the following:
  - ART 597, ART 598 or ART 599 courses
- Take the following:
  - ART 681 in the first semester
  - ART 685 in the second semester
- Take 15 units additional coursework.

**Drawing and Painting Contemporary Practices Track:**

- Take 12 units from the following:
  - ART 597K, ART 598K, ART 599K
- Take 6 units from any of the following:
  - ART 597, ART 598 or ART 599 courses
- Take the following:
  - ART 681 in the first semester
  - ART 685 in the second semester
- Take 15 units additional coursework.

**Drawing and Painting Figurative Track:**

- Take 12 units from the following:
  - ART 597L, ART 598L, ART 599L (recommended in the first 3 semesters)
- Take 6 units from any of the following:
  - ART 597, ART 598 or ART 599 courses
- Take the following:
  - ART 681 in the first semester
  - ART 685 in the second semester
- Take 15 units additional coursework.

**Fiber Track:**

- Take 12 units from the following:
ART 597N, ART 598N, ART 599N
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take 15 units additional coursework.

Graphic Design Track:
Take 12 units from the following:
ART 597S, ART 598S, ART 599S
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 683, ART 684
Take 15 units additional coursework.

Illustration/Animation Track:
Take 12 units from the following:
ART 597F, ART 598F, ART 599F
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 683, ART 684
Take 15 units additional coursework.

Metal Track:
Take 12 units from the following:
ART 597J, ART 598J, ART 599J
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take 15 units additional coursework.

Photography Track:
Take 12 units from the following:
ART 597V, ART 598V, ART 599V
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take 6 units of the following:
ART 680
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take 3 units from the following:
ART 536A, ART 550, ART 680
Take 6 units additional coursework.

Printmaking Track A:
Take 12 units from the following:
ART 597R, ART 598R, ART 599R
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take 3 units from the following:
ART 575
Take one of the following:
ART 340, ART 349
Take 3 units from the following:
ART 449, ART 506A, ART 693
Take 3 units from the following:
ART 506B, ART 573, ART 693
Take 3 units from the following:
ART 499, ART 514, ART 680
Take 9 units additional coursework.

Printmaking Track B:
Take 12 units from the following:
ART 597R, ART 598R, ART 599R
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take 3 units from the following:
ART 536A, ART 550, or ART 680
Take 9 units additional coursework.

Printmaking Track C:
Take 12 units from the following:
ART 597R, ART 598R, ART 599R
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 685 in the second semester
Take the following:
ART 575
Take one of the following:
ART 340, ART 349
Take 3 units from the following:
ART 449, ART 506A, ART 693
Take 3 units from the following:
ART 506B, ART 573, ART 693
Take 3 units from the following:
ART 499, ART 514, ART 680
Take 9 units additional coursework.

Wood Track:
Take 12 units from the following:
ART 597O, ART 598O, ART 599O
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 680 Graduate Interdisciplinary Critique (3)
Prerequisites: None
ART 685 in the second semester
Take 3 units from the following:
ART 536A, ART 550, or ART 680
Take 9 units additional coursework.

Sculpture/4D Track:
Take 12 units from the following:
ART 597O, ART 598O, ART 599O
Take 6 units from any of the following:
ART 597, ART 598 or ART 599 courses
Take the following:
ART 681 in the first semester
ART 680 Graduate Interdisciplinary Critique (3)
Prerequisites: None
ART 685 in the second semester
Take 3 units from the following:
ART 536A, ART 550, or ART 680
Take 9 units additional coursework.
Graduate Certificate in Museum Studies
This certificate is primarily directed toward graduate students in Art History and the visual arts, but does not exclude students in other fields. The specifically tracked course of study has an emphasis placed primarily on contemporary art.

A student may pursue the Certificate in Museum Studies as a program of study in itself, or in combination with a program of study directed toward the achievement of one of the school’s degrees. A student may, with approval of both the Museum Studies Program and the student’s Project or Thesis Committee, count up to 15 units of coursework toward both the degree and the certificate.

Admission to the program is by permission of the Museum Studies faculty and the head of the Art History Program. Applicants wishing to pursue the Certificate Program in Museum Studies should apply for the desired degree program during the regular School of Art graduate application window, and should indicate interest in pursuing the Certificate Program in Museum Studies concurrently.

Applicants wishing to pursue the Certificate Program in Museum Studies separate from a degree program should contact the School of Art Graduate Advisor.

This certificate program is eligible for Financial Aid. Please see the school website for required Federal disclosure information.

Requirements
A total of 18 units to include:

Take all of the following courses:

- AH 530 Introduction to Curatorial Practices (3)
  Prerequisites: AH 111A, AH 111B, or consent of instructor
- AH 531 History of Museums and Exhibition (3)
  Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
- AH 545A Museum-Gallery Practices (3)
  Prerequisites: Graduate standing or consent of instructor.
- AH 545B Museum-Gallery Practices (3)
  Prerequisites: AH 545A or consent of instructor.
- AH 597 Seminar in Art History (3)
  Prerequisite: Consent of instructor.

Take one of the following courses:

- AH 547 Historiography of Art History (3)
  Prerequisite: ART 340
- AH 550 Western Art Theory and Criticism Mid-Twentieth Century to Present (3) (or approved substitution)
  Prerequisite: None

Single Subject Teaching Credential in Art
For information, refer to the undergraduate section in this school.

Foundation Art

The classes listed below are the foundation art classes that are required of most studio art majors. When foundation studio classes are chosen, be aware of the prerequisites; do not take the studio classes out of order.

AH 111A,B. Foundation Art History I, II

Art Courses (ART)

LOWER DIVISION

101. Artists in Their Own Words (1)
Prerequisite/Corequisite: One GE Foundation course.
Students learn from guest artists and arts scholars about their work, and how they have established and sustained a practice and career. Invited from across the spectrum of visual arts, each guest represents a case study in presentation and professionalism.
Credit/No Credit grading only. May be repeated to a maximum of 2 units in different semesters. (2 hours activity)

110. Introduction to the Visual Arts (3)
Prerequisite/Corequisite: One GE Foundation course.
Exploration of meanings, purposes, styles, materials and forms of art and architecture. Multicultural perspective. Development of awareness through examination and comparison of art and artifacts, past and present.

121. Safety and Sustainable Practices for Studio Artists (1)
Prerequisite/Corequisite: One GE Foundation course.
Students learn from guest artists and arts scholars about their work, and how they have established and sustained a practice and career. Invited from across the spectrum of visual arts, each guest represents a case study in presentation and professionalism.
Credit/No Credit grading only. May be repeated to a maximum of 2 units in different semesters. (2 hours activity)

130. Foundation Two-Dimensional (3)
Foundation course required to be taken by all majors within the School of Art prior to 200-level or above art courses. Exploration and application of principles, components and terminology of two-dimensional design via relational, problem-solving and visual-vocabulary exercises.
Letter grade only (A-F). (6 hours lab)

131. Foundation Three Dimensional (3)
Foundation course required to be taken by all majors within the School of Art prior to 200-level or above art courses. Exploration and application of principles, components and terminology of two-dimensional design via relational, problem-solving and visual-vocabulary exercises.
Letter grade only (A-F). (6 hours lab)

132. Foundation Color Theory (3)
Prerequisite/Corequisite: ART 130
Foundation course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Also satisfies requirements or choices in some BFA degrees. Focus on visual and aesthetic interactions of color. (Not open to students with credit for ART 182.)
Letter grade only (A-F). (6 hours lab)
149. Foundation Computer Art (3)
Prerequisites: ART 130.
Foundation course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Also satisfies requirements or choices in some BFA degrees. Project-based exploration of art-related digital imaging, layout, and vector software, and introduction to interactive and web-based media. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.) Not open for credit to students with credit in ART 349A.

181. Foundation Drawing (3)
Foundation course intended to be taken by all majors within the School of Art prior to 200-level or above art courses. Introduction to drawing with emphasis on perspective, light, shadow, and volume in composition using a variety of media. Letter grade only (A-F). (6 hrs. lab.)

184. Foundation Life Drawing (3)
Prerequisites: ART 181.
Foundation course required in the BA Studio Art. Also satisfies requirements or choices in all other undergraduate degrees in the School of Art. Introduction to drawing from the human figure. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

221. Shop Orientation (1)
Familiarization with student workshop facilities, specific instruction on safety procedures and methods in use of tools and equipment. Safety lectures and technical demonstrations followed by hands-on experience. Projects familiarize students with machinery and facilitate the acquisition of basic woodworking skills. Credit/No Credit grading only. (2 hours activity)

223. Introduction to Typography (3)
Prerequisite: For Art majors: ART 130, ART 181. For Design majors: DESN 120A and DESN 132A.
Introductory course in the fundamentals of typographic form. Close examination of the architecture of letterforms and alphabet construction. Letter grade only (A-F). (6 hours lab) Student-owned laptop computer is required. See School website for current hardward and software specifications.

227. History of Animation (3)
Prerequisites: Completion of GE A1 requirement; sophomore standing
Historical, theoretical and aesthetic developments of animation since its beginnings across cultures and within global contexts with consideration of cultural, social, political and technological influences. Letter grade only (A-F). Same course as FEA 227. Not open for credit to students with credit in FEA 227.

241. Introduction to Photography (3)
Prerequisite(s): One G.E. Foundation Course Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Also satisfies requirements or choices in some BFA degrees. Fundamentals of digital photography: cameras, digital darkroom techniques, photographic vision, critical issues. Letter grade only (A-F). Course fee and digital camera (DSLR) may be required. Information on fees related to this course can be found here. (6 hrs. lab.)

251A. Introduction to Ceramics: Handbuilding (3)
Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131.
Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Also satisfies requirements or choices in BA Art Education and some BFA degrees. Includes slab, coil, and molding techniques; glazing, firing. Letter grade only (A-F). (6 hrs. lab.)

251B. Introduction to Ceramics: Wheel Throwing (3)
Prerequisites/Corequisites: For non-Art majors: None. For Art majors: ART 131.
Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Satisfies requirements or choices in BA Art Education and some BFA degrees. Development of forms with potters wheel, glazing and firing. Letter grade only (A-F). (6 hrs. lab.)

254. Introduction to Wood (3)
Prerequisites: ART 121, ART 131 or consent of instructor.
Introduction to concepts, tools and techniques used in the creation of handcrafted, wooden objects. Basic construction and reductive shaping techniques including, lamination, milling, woodturning, carving, and joinery. Letter grade only (A-F). (6 hours lab)

257. Introduction to Metals (3)
Prerequisites: ART 121, ART 131, or consent of instructor.
Introduction to metal and jewelry processes; approaches include enameling, casting, forging, and fabrication. Letter grade only (A-F). (6 hours activity)

261. Introduction to Life Sculpture (3)
Prerequisite/Corequisite: ART 131 or ART 181 or consent of instructor.
Introduction to modeling from the human figure with emphasis on a range of approaches and techniques to figurative sculpture. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

263. Introduction to Sculpture/4D (3)
Prerequisites: ART 131 or consent of instructor.
Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Also satisfies requirements or choices in BA Art History and most BFA degrees. Exploration of art in three and four dimensions. Letter grade only (A-F). (6 hrs lab)

265. Introduction to Fiber (3)
Prerequisites: ART 130, ART 131
Introductory course satisfying a choice between requirements in the BA Studio Art. Satisfies requirements or choices in some BFA degrees. Introduction to mixed media and fiber/fabric materials, processes and approaches including surface design, papermaking, weaving, hand-construction. Letter grade only (A-F). (6 hours lab)

270. Introduction to Printmaking (3)
Prerequisites: ART 181 or permission of instructor.
Introductory course satisfying a choice between requirements in the BA Studio Art. Satisfies requirements or choices in some BFA degrees. Exploration of multiple printmaking processes and possibilities for producing art in multiples, variations, and unique works. Focus on non-toxic approaches. Letter grade only (A-F). (6 hrs lab.)

271. Introduction to Rendering (3)
Prerequisite: ART 130, ART 181
Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Satisfies requirements or choices in some BFA degrees. Graphic visualization for convincing representation. Letter grade only (A-F). (6 hrs. lab.)
287. Introduction to Painting (3)
Prerequisites: ART 130, ART 181.
Introductory course satisfying a choice between requirements in the BA Studio Art (Students choose from a group of courses). Satisfies requirements or choices in BA Art Education, BA Art History, and most BFA degrees. Introduction to painting problems using opaque media.
Letter grade only (A-F). (6 hrs. lab.)

291. Introduction to Animation (3)
Prerequisites: ART 130, ART 181
Introduction to frame-by-frame manipulation, including traditional, experimental, and digital animation, pre-production work, motion graphics, and brief history of animation. Survey course satisfying a choice between requirements in the BA Studio Art. Satisfies requirements or choices in some BFA degrees.
Letter grade only (A-F). (6 hours lab)

Art Education

(ART 407 & 499P acceptable for M.A., Art Educ Specialization)
ART 407. Art, Adolescence, and the Child
ART 408. Cross-Cultural Perspectives in Art Education
ART 409. Art Disciplines and New Technology
ART 410. Art and Social Action: A Global Perspective
ART 411. Cross Cultural and Community-based Practices
ART 412. Art Practicum
ART 413. Historical Perspectives in Contemporary Art Education
ART 414. Art Education Specialization
ART 415. On-Site Studies in Art Education
ART 416. Special Studies in Art Education

Art History

AH 364. History of Ceramics 1900 to Present
AH 365. History of Prints and Drawings
AH 367. History of Photography
AH 369. Romanesque Art
AH 370. Gothic Art
AH 371. History of Ceramics
AH 372. Issues in Art History: Theory and Practice
AH 373. Greek Art
AH 374. Roman Art
AH 375. Early Renaissance Art in Italy
AH 376. High Renaissance Art in Italy
AH 377. Northern Renaissance Painting
AH 378. Baroque Art in Spain, the Netherlands, and England
AH 379. Baroque Art in Italy, France, and Germany
AH 380. Museum Practices
AH 381. History of Museums and Exhibitions
AH 382. Museum and Gallery Practices
AH 383. Exhibition and Display Practices
AH 384. Neo-Classicism to Romanticism, 1789-1850
AH 385. Impressionism to Post-Impressionism, 1850-1900
AH 386. Art of Early to Mid Twentieth Century
AH 387. Art of Mid to Late Twentieth Century
AH 388. Contemporary Art in Context
AH 389. History of Graphic Design
AH 390. Art History Methodologies and Writing
AH 391. Historiography of Art History
AH 392. Western Art Theory & Criticism to Mid-19th Century

Ceramics

ART 341. Intermediate Ceramics: Handbuilding
ART 341B. Intermediate Ceramics: Wheel Throwing
ART 343A. Ceramics Sculpture
ART 343B. Advanced Wheel Throwing
ART 345. Ceramics: Glaze Technology
ART 351. Ceramics Plaster Shop
ART 451A. Advanced Ceramics
ART 452. Seminar in Ceramic Arts
ART 453. Ceramics: Senior Project
ART 454. Special Studies in Ceramics

Drawing and Painting

ART 381. Intermediate Drawing
ART 383. Life Painting
ART 384. Intermediate Life Drawing
ART 387. Painting
ART 388. Advanced Studies in Color
ART 389. Materials and Techniques of Drawing and Painting
ART 481. Advanced Drawing
ART 483. Advanced Life Painting
ART 484. Advanced Life Drawing
ART 487. Advanced Painting
ART 491G. Ceramics: Senior Project
ART 492F. Concentrated Studies in Life Painting
ART 492G. Concentrated Studies in Abstract Painting
ART 492Z. Concentrated Studies in Life Painting
ART 496A. BFA Capstone: Drawing and Painting
ART 496B. BFA Capstone: Drawing and Painting
ART 499D. Special Studies in Drawing
ART 499Q. Special Studies in Museum Studies

AH 449. West Art Theory & Criticism Mid-19th to Mid-20th Century
AH 450. West Art Theory & Criticism Mid-20th Century to Present
AH 453. Arts of the African Diaspora
AH 454. Contemporary Indigenous Arts in the United States and American Territories
AH 455. Traditional Art of Africa: A Thematic Approach
AH 456. Native American Art
AH 457A. Pre-Columbian Art: Mesoamerica
AH 457B. Pre-Columbian Art: The Andes
AH 457C. Pre-Columbian Art
AH 458. Art of Latin America: 1800-1940
AH 459. Art of Latin America: 1940 to Present
AH 460. Art of Mexico: 1780 to Present
AH 465. Ancient Art of the Near East
AH 466. Buddhist Art of India and S.E. Asia
AH 467. Hindu and Islamic Art of India
AH 468. Early Chinese Art
AH 469. Later Chinese Art
AH 470. Japanese Buddhist Art to 1500
AH 470B. Japanese Art 1500-1868
AH 471A. Modern Japanese Graphic Art
AH 471B. Modern Japanese Plastic Art
AH 471C. Modern Japanese Architecture
AH 472. Independent Study in Art History
AH 473. Special Studies in Art History
AH 474. Seminar in Art History
AH 475. Selected Topics in Art History
AH 476. Special Studies in Museum Studies
Fiber

ART 316. Fiber: Pattern Design and Printing
ART 317. Fiber: Textile Dyeing
ART 328A. Fiber and Mixed Media: Sculptural Forms
ART 328B. Fiber and Mixed Media: Sculptural Forms
ART 428A. Fiber: Weaving, Dyeing, Woven Structures
ART 428B. Fiber: Weaving, Dyeing, Woven Structures
ART 430. Fiber: Artist Books and Papermaking
ART 432. Fiber: Fiber and Mixed Media: Advanced
ART 491B. 3-D Media: Senior Project
ART 499N. Special Studies in Fiber and Mixed Media

Graphic Design

ART 318. TYPE II: Intermediate Typography
ART 321. Graphic Design I: Introduction to Graphic Design
ART 327. Graphic Design II: Intermediate Graphic Design
ART 331. Advertising I: Introduction to Concept Development
ART 332. Graphic Design: Professional Preparation
ART 334. Graphic Design III: Exploration and Experimentation
ART 335. Advertising II: Intermediate Concept Dev & Art Direction
ART 336. Graphic Design IV: Development and Analysis
ART 337. Graphic Design V: Packaging Design
ART 335. Media Design: Motion Graphics
ART 336. Media Design: Web and Interactive Design
ART 419/.519. Media Design: 5D; Designing the Future
ART 420. Graphic Design Workshop
ART 421. Advanced Typography
ART 423. Graphic Design VI: Advanced Topics
ART 424. Advertising III: Advanced Topics
ART 442. Internship in Graphic Design
ART 486. Media Design: Advanced Topics
ART 499S. Special Studies in Visual Communication Design

Illustration / Animation

ART 371A. Illustration
ART 371B. Illustration
ART 372. Anatomy for Artists
ART 373. Costumed Figure Drawing
ART 374A. Biomedical Rendering
ART 374B. Biomedical Rendering
ART 382. Production Fine Art
ART 385. Watercolor Painting
ART 390. Drawing Figures in Context
ART 391. Animation 1
ART 392. Animation 2
ART 393. Character Design
ART 416/.516. Animation 3
ART 417/.517. Animation 4
ART 418. Visual Development
ART 426/.526. Computer Animation 1
ART 427/.527. Computer Animation 2
ART 471A. Advanced Illustration
ART 471B. Advanced Illustration
ART 472/.572. Storyboarding for Film and Television
ART 476/.576. Experimental Animation 1
ART 478/.578. Experimental Animation 2
ART 482/.582. Sequential Imaging
ART 491E. Illustration/Animation Senior Project
ART 499E. Special Studies in Animation
ART 499F. Special Studies in Illustration

Metal

ART 355. Enameling
ART 356. Jewelry Casting
ART 357A-B. Metals and Jewelry
ART 358A-B. Metalsmithing
ART 359A. Architectural Metalwork and Blacksmithing
ART 359B. Sculptural Metalwork
ART 458A-B. Advanced Metalsmithing/Jewelry and Enameling
ART 491B. Senior Project
ART 499J. Special Studies in Metalsmithing and Jewelry

Museum Studies

AH 430/.530. Introduction to Curatorial Practices
AH 431/.531. History of Museums and Exhibitions
AH 499Q. Special Studies in Museum Studies

Photography

ART 340. Intermediate Photography
ART 342A. Contemporary Practices in Color Photography
ART 406A. Digital Imagery for the Arts
ART 406B. Advanced Digital Imagery for the Arts
ART 414/.514. Documentary Photography
ART 444. Advanced Black and White Photography
ART 447A. Photography Studio Specialties
ART 447B. Advanced Studio Lighting
ART 448 The Moving Image
ART 449. Experimental Practices in Photography
ART 473/.573. Seminar in Photo-Based Art
ART 491C. Photography - Senior Project
ART 499V. Special Studies in Art Photography

Printmaking

ART 370. Printmaking
ART 376. Printmaking: Relief Printing
ART 377. Printmaking: Silkscreen
ART 378. Printmaking: Etching
ART 379. Printmaking: Lithography
ART 475/.575. Printmaking: Photo and Digital Processes
ART 480/.580. Printmaking: Monotype/Monoprint
ART 491P. Printmaking: Senior Project
ART 499R. Special Studies in Printmaking

Sculpture

ART 360A. Sculpture/4D: Intermediate
ART 360B. Sculpture/4D: Intermediate
ART 361. Sculpture/4D: Observation
ART 367A. Sculpture: Mold Making Lab
ART 367B. Sculpture/4D: Foundry Lab
ART 363A. Sculpture/4D: Fabrication Lab A
ART 363B. Sculpture/4D: Fabrication Lab B
ART 363C. Digital Fabrication Lab
ART 364. Sculpture/4D: Electronics, Mechanics, Kinetics
ART 436A/.536. Sculpture/4D: Video Art
ART 436B/.536. Sculpture/4D: Video Art
ART 450A. Sculpture/4D: Intermedia/New Genres
ART 450B. Sculpture/4D: Intermedia/New Media
ART 460A,B Sculpture/4D: Advanced
317. Fiber: Textile Dyeing (3)
Prerequisites: ART 130, ART 131, ART 287; AH 111A, AH 111B.
Exploration of a variety of design concepts and dye processes
to include natural and chemical (acid and fiber reactive) dye
technology using discharge, shaped resists, batik, and direct painting
techniques.
Letter grade only (A-F). Not open for credit to students with credit in
ART 327B. (6 hrs. lab.)

318. TYPE II: Intermediate Typography (3)
Prerequisites: For Art Majors: ART 130, ART 131, ART 181, ART 184,
ART 223; ART 132, ART 241, ART 270 or ART 287; AH 111A, AH
111B or consent of instructor. For Design Majors: DESN 120A, DESN
132A, and ART 223.
Focus on the compositional use of type and its relationship to issues
of visual hierarchy, readability and page structure. Students continue
their exploration of typography as an expressive visual form.
Letter grade only (A-F). (6 hrs. lab.) Student-owned laptop computer
is required. See School website for current hardware and software
specifications.

321. Graphic Design I: Introduction to Graphic
Design (3)
Prerequisites: For Art Majors: ART 130, ART 131, ART 181, ART 184,
ART 223; ART 132, ART 241, ART 270, or ART 287; AH 111A, AH
111B. For Design Majors: ART 223; DESN 120A, DESN 120B, DESN
132A, DESN 132B; AH 111A, AH 111B.
Introductory course, exploring formal constructs of combining type
and image and of image creation. Enhance understanding of problem
definition and concept development. Explore the relationships of form
to content.
Letter grade only (A-F). (6 hours lab) Student-owned laptop computer
is required. See School website for current hardware and software
specifications.

327. Graphic Design II: Intermediate Graphic Design (3)
Prerequisites: ART 223, ART 318, ART 321
Intermediate course, developing formal and conceptual skills using
type and image, learning fundamentals of preparing art for print.
Letter grade only (A-F). (6 hrs lab) Student-owned laptop computer
is required. See School website for current hardware and software
specifications.

328A. Fiber and Mixed Media: Sculptural Forms (3)
Prerequisites: ART 130, ART 131, AH 111A, AH 111B.
Exploration of concepts and materials using non-loom textile
techniques. Development from 2-D relief surfaces to full 3-D forms.
May include basic fiber structures of stitching, wrapping, felting,
papermaking, twining, knitting, crochet, and coiling.
Letter grade only (A-F). (6 hrs. lab.)

328B. Fiber and Mixed Media: Sculptural Forms (3)
Prerequisites: ART 328A.
Designed to strengthen a working understanding on non-loom fiber
structures. Emphasis on development of personal expression within
media.
Letter grade only (A-F). (6 hrs. lab.)

331. Advertising I: Introduction to Concept Development
(3)
Prerequisites: ART 130, ART 131, ART 181, ART 184, ART 223, ART
318, ART 321; ART 132, ART 241, ART 270, or ART 287; AH 111A,
AH 111B
Introduction to learning how to think more conceptually through
creating print ads primarily by understanding the foundations of
setting an objective, planning a creative strategy, identifying a target;
and by learning various ways to think creatively.
Letter grade only (A-F). (6 hrs. lab.)
332. Graphic Design: Professional Preparation (3)
Prerequisites: ART 318, ART 321, ART 327, ART 331.
Engages topics regarding the profession of Graphic Design, including portfolio and resume development, presentations, interview skills, pricing and negotiating, ethical guidelines, and project organizational skills.
Letter grade only (A-F). (6 hrs. lab.)

333. Global Art Scenes (3)
Prerequisites: Completion of GE Foundation and upper-division standing.
Examination of the global field of contemporary art with emphasis on issues and structures that shape art scenes in different cultural contexts.
Letter grade only (A-F).

334. Graphic Design III: Exploration and Experimentation (3)
Prerequisite: ART 327 and 331, BFA Graphic Design Major or consent of instructor.
Advanced design course, examining and creating traditional, alternative and experimental solutions across a variety of media.
Letter grade only (A-F). (6 hrs. lab.) Student-owned laptop computer is required. See School website for current hardware and software specifications.

335. Advertising II: Intermediate Concept Development and Art Direction (3)
Prerequisite: ART 327 and 331, BFA Graphic Design Major or consent of instructor.
Development of concept and design advertising projects that are strategically sound, creatively unexpected, innovative and of portfolio quality.
Letter grade only (A-F). (6 hrs. lab.) Student-owned laptop computer is required. See School website for current hardware and software specifications.

336. Graphic Design IV: Development and Analysis (3)
Prerequisites: ART 334, ART 335 or consent of instructor.
Learn and practice in-depth research and analytical procedures that establish visual concept development and create systematic applications design.
Letter grade only (A-F). (6 hours lab) Student-owned laptop computer is required. See School website for current hardware and software specifications.

337. Graphic Design V: Packaging Design (3)
Prerequisites: BFA Graphic Design Major and ART 321, ART 334, ART 335, or consent of Instructor
Materials, processes and the design of packaging.
Letter grade only (A-F). (6 hours lab) Student-owned laptop computer is required. See School website for current hardware and software specifications.

340. Intermediate Photography (3)
Prerequisites: ART 130, 181, 241, and AH 111A or 111B
Introduction to black and white darkroom and camera work. Continuing study of photographic vision, and critical issues. Development of series and bodies of work.
Letter grade only (A-F). Course fee and 35mm camera may be required. Information on fees related to this course can be found here. (6 hrs. lab.)

341A. Intermediate Ceramics: Handbuilding (3)
Prerequisites: ART 251A
Design problems with handbuilt ceramic forms with emphasis on surface.
Letter grade only (A-F). (6 hrs. lab.)

341B. Intermediate Ceramics: Wheel Throwing (3)
Prerequisites: ART 251B
Design problems with wheel-thrown ceramic forms with emphasis on surface.
Letter grade only (A-F). (6 hrs. lab.)

342A. Contemporary Practices in Color Photography (3)
Prerequisite/Corequisite: ART 340
Contemporary approaches to art-based photography, theory of media and representation. Use and control of photographic color.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

343A. Ceramics Sculpture (3)
Prerequisites: ART 341A.
Advanced studies in ceramic sculpture.
Letter grade only (A-F). (6 hrs. lab.)

343B. Advanced Wheel Throwing (3)
Prerequisites: ART 341B.
Advanced studies in ceramic form employing the potters wheel.
Letter grade only (A-F). (6 hrs. lab.)

349. Computer Art (3)
Prerequisites: ART 149, 6 units from AH 113A, AH 113B, AH 111A, AH 111B.
Basic theory and hands-on use of microcomputers employing graphics in "Paint Programs" with color hardcopy output and animation production on video tape. Emphasis on computer graphic applications in students' individual studio art disciplines.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in ART 349B. (6 hrs. lab)

352A. Ceramics: Glaze Technology (3)
Prerequisites: ART 131, ART 251A or ART 251B; AH 111A or AH 111B.
Nature of raw materials as they relate to the development of clay bodies and ceramic glazes.
Letter Grade only (A-F). (6 Hrs. Lab)

352B. Ceramics Plaster Shop (3)
Prerequisites: ART 251A or ART 251B; AH 111A or AH 111B.
Use of plaster molds for making ceramic art including press molds, slip casting, and jiggering.
Letter grade only (A-F). (6 hrs. lab.)

353. Drafting and Model Making for 3D Art Objects (3)
Prerequisites: ART 130, ART 181, ART 254, AH 111B or consent of instructor.
Techniques and conventions of technical drawing by hand, 3-D model making, 2-D and 3-D digital rendering central to the generation, evaluation and communication of design concepts in the preliminary stages of 3-D art object making. (6 hours activity)
Letter grade only (A-F).

354A. Intermediate Wood A (3)
Prerequisites: ART 130, ART 131, ART 181; ART 221 or ART 254; AH 111A or AH 111B.
Intermediate study of tools and processes common in the production of wooden objects and structures. Hand tools and layout techniques are emphasized through the practice of historical joinery methods pertaining to furniture and architecture. Woodturning and milling are continued.
Letter grade only (A-F). (6 hrs. lab)
354B. Intermediate Wood B (3)
Prerequisite: ART 354A or consent of instructor.
Intermediate study of machines and processes used to create complex wooden structures with an emphasis on non-rectilinear forms and modern techniques. Bending, forming, and advanced lamination techniques will be introduced.
Letter grade only (A-F). (6 hrs. lab)

355. Enameling (3)
Prerequisites: ART 130, ART 131; AH 111A, AH 111B; or consent of instructor.
Techniques, materials, and concepts of enameling on metals. Introduction to tools and metalworking techniques associated with making enameled metal objects. Emphasis on exploration of characteristics of enamels and metals, stressing individual advancement of interest and expression.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 6 units. (6 hrs. lab.) Not open for credit to students with credit in ART 355A.

356. Jewelry Casting (3)
Prerequisite: ART 130, ART 131, ART 181; AH 111A, AH 111B; or consent of instructor.
Design and creation of jewelry through lost-wax casting techniques and processes. Exploration of wax-working techniques, mold making, found object casting, metal melting, and finishing techniques.
Course fee may be required. May be repeated to a maximum of 6 units. (6 hrs. lab.)

357A. Metals and Jewelry (3)
Prerequisites: ART 130, ART 131; AH 111A, AH 111B; or consent of instructor.
Exploration of small-scale metal forming and techniques used in the creation of jewelry, sculptural forms, and utilitarian objects. Concepts and experiences are designed to familiarize the student with basic metalworking, joining, and finishing techniques.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

357B. Metal and Jewelry Design (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B; or consent of instructor.
Further exploration of small-scale metal forming and techniques used in the creation of jewelry, sculptural forms and utilitarian objects. With an emphasis on design methodology and fabrication techniques.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

358A. Metalsmithing (3)
Prerequisites: ART 130, ART 131; AH 111A, AH 111B; or consent of instructor.
Introduction to large-scale metalsmithing processes, design concepts and techniques used in the creation of flatware and hollowware. Experiences are intended to familiarize the student with the design and creation of sculptural forms, vessels and utilitarian objects.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

358B. Intermediate Metalsmithing (3)
Prerequisite: ART 358A.
Exploration and refinement of large-scale metalsmithing processes, design concepts and techniques used in the creation of flatware and hollowware. Students will design and create complex sculptural forms, vessels, and utilitarian objects.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

359A. Architectural Metalwork and Blacksmithing (3)
Prerequisites: ART 130, ART 131, ART 181; AH 111A, AH 111B.
Techniques, materials and concepts of metal craft for developing art forms in larger scale and in architectural context. Hot forging and fabricating with ferrous metals. Basic techniques of cutting, forming, joining, welding and surface design of metals. Making of tools.
May be repeated to a maximum of 6 units. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

359B. Sculptural Metalwork (3)
Prerequisites: ART 130, ART 131, ART 181; AH 111A, AH 111B.
Introduction to metalforming and construction techniques in the design and creation of sculptural form and composition in metal on an architectural scale.
May be repeated to a maximum of 6 units. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

360A. Sculpture/4D: Intermediate (3)
Prerequisites: ART 263; AH 111A or AH 111B, or consent of instructor.
Exploration of a broad range of sculptural techniques and approaches from traditional 3D media to installation, site-specific and time-based practices.
(6 hrs. lab.) Letter grade only (A-F).

360B. Sculpture/4D: Intermediate (3)
Prerequisites: ART 360A or consent of instructor.
Exploration and refinement in a wide range of sculptural techniques and strategies. Introduction to installations and public work. Some work will be with time based kinetic art. Will include introduction to 3-D art theory.
(6 hrs. lab.) Letter grade only (A-F).

361. Sculpture/4D: Observation (3)
Prerequisites: ART 130, ART 131, ART 181, ART 261; AH 111A, AH 111B.
Historical, theoretical and technical emphasis on a range of approaches to observation-based art. Emphasis on figurative traditions, interpretive abstraction, in addition to considering the role of observational study in science and the broader social field. Non-medium specific.
Course fee may be required. (6 hours lab) Letter grade only (A-F).

363A. Sculpture/4D: Fabrication Lab A (3)
Prerequisites/Corequisites: ART 131; AH 111A or AH 111B, or consent of instructor.
Introduction to basic fabrication techniques, tools, building concepts and design principles using wood, metal and construction materials.
(6 hrs. lab.) Letter grade only (A-F). Not open for credit for students with credit in ART 363.

363B. Sculpture/4D: Fabrication Lab B (3)
Prerequisite: ART 131; AH 111A or AH 111B, or consent of instructor.
Exploration of advanced techniques in dimensional fabrication, from building in architectural scale to model making. Emphasis is on complex structures, installation building and formal issues related to traditional and construction materials.
Letter grade only (A-F) (6 hrs. lab)

363C. Digital Fabrication Lab (3)
Prerequisite: ART 131; AH 111A or AH 111B, or consent of instructor.
Exploration of advanced fabrication processes with plastics, subtractive tooling and Computer Aided Manufacturing. Synthesis of a broad range of techniques and technologies of manufacturing with emphasis on the production of art works.
Letter grade only (A-F) (6 hrs. Lab)
364. Sculpture/4D: Electronics, Mechanics, Kinetics (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B, or consent of instructor.
Exploration of basic electronics, mechanics, microcontroller interface, and simple software coding for the creation of works of art. Consideration of form, movement, light, sound, behavior, and interactivity.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

365. Media Design: Motion Graphics (3)
Prerequisite: ART 223, ART 321; or consent of instructor.
Learning the essentials of theory, practice, visual and verbal vocabulary of moving forms. Time, space, image and audio will be emphasized within the context of concept development and design aesthetics.
Not open for credit to students with credit in ART 386A. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

366. Media Design: Web and Interactive Design (3)
Prerequisite: ART 223, ART 321; or consent of instructor.
Develop skills and principles to design for non-linear environments. Students learn how to, conceptually, theoretically, and aesthetically, design for web standards, information progression, usability, and accessibility.
Not open for credit to students with credit in ART 386B. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

367A. Sculpture/4D: Mold Making Lab (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B.
Technical and historical introduction to all forms of mold making: rubber molds, rigid molds, vacuum forming, life casting, in addition to covering a broad range of casting materials such as resins, foams and composites.
Letter grade only (A-F). Course fee may be required. (6 hrs lab)

367B. Sculpture/4D: Foundry Lab (3)
Prerequisites: ART 130, ART 131; AH 111A or AH 111B, or consent of instructor.
Exploration of modeling positive forms, creating ceramic-shell molds and sand molds, and casting, finishing and patinating works in metal.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

370. Printmaking (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Studio course exploring a range of printmaking techniques and imagery, selected from the areas of etching, lithography, silkscreen, relief and monoprinting.
(6 hrs. lab.) Letter grade only (A-F).

371A, B. Illustration (3, 3)
For ART 371A: Prerequisites/Corequisites: ART 130, ART 131, ART 181, ART 184, ART 287; AH 111A, AH 111B.
For ART 371B: Prerequisite: ART 371A. Prerequisites/Corequisites: ART 223 or 291 and ART 271.
Editorial and advertising drawing, professional media, skills and techniques survey.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

372. Anatomy for Artists (3)
Prerequisites: ART 130, ART 131, ART 181, ART 184; AH 111A, AH 111B.
Skeletal and muscle structure emphasizing the development of skill in depicting the human figure. Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

373. Costumed Figure Drawing (3)
Prerequisites: ART 371A, ART 372; AH 111A, AH 111B.
Drawing from costumed models with props and controlled lighting. Emphasis on development of staging. Manipulation of composition, light, shadow, value, color, proportion, and scale are explored to achieve mood, gesture, drama, and attitudes related to human reactions, situations and character.
(6 hrs. lab.) Course fee may be required. Letter grade only (A-F).

374A, B. Biomedical Rendering (3,3)
Prerequisites: ART 130, ART 184, ART 287; AH 111A, AH 111B; or consent of instructor.
Introduction to and practice in techniques of descriptive drawing and press reproduction of drawing. Emphasis on skill.
(6 hrs. lab.) Letter grade only (A-F).

375. Art and Social Action: A Global Perspective (3)
Prerequisite: Upper-division standing.
Examines the interconnections among global processes and global social problems from the perspectives of art and sociology. Analyzes historical, geographical, class and status components of these problems, and the role of art to promote social change.
Same course as SOC 375. Not open for credit to students with credit in SOC 375.

376. Printmaking: Relief Printing (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in relief printing techniques and image development, including woodcut, wood engraving, linocut, collagraphs and alternative print surfaces. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

377. Printmaking: Silkscreen (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in fine art screen printing techniques and image development, including resist, paper, film, emulsion and alternative stencil methods.
(6 hrs. lab.) Letter grade only (A-F).

378. Printmaking: Etching (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in intaglio printing techniques and image development, including etching, engraving, dry-point, aquatint and alternative platemarking methods. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

379. Printmaking: Lithography (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in stone lithography techniques and image development, including crayon drawing, flats, washes, transfers and alternative drawing methods. In black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

381. Intermediate Drawing (3)
Prerequisites: ART 130, ART 181, ART 184; AH 111A, AH 111B.
Problems and concepts in drawing using a variety of media.
(6 hrs. lab.) Letter grade only (A-F).

382. Production for Fine Art (3)
Prerequisites: ART 223 or consent of instructor.
Exploration of printing and reproduction process related to needs of artist, illustrator, and museum professional. Introduction to skills and vocabulary necessary for preparation of art for print and electronic media. Emphasis on interaction with various commercial production professionals.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.
383. Life Painting (3)
Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B.
Painting from the human figure with emphasis on representing form in
space, structure, color, value, and composition.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

384. Intermediate Life Drawing (3)
Prerequisites: ART 130, ART 181, ART 184; AH 111A, AH 111B.
Continued study in drawing from the human figure from direct observation.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

385. Watercolor Painting (3)
Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B.
Nature and use of the watercolor media.
(6 hrs. lab.) Letter grade only (A-F).

387. Painting (3)
Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B.
Problems and concepts in space, form, structure, color and content in studio painting.
(6 hrs. lab.) Letter grade only (A-F).

388. Advanced Studies in Color (3)
Prerequisites/Corequisites: ART 130, ART 287, AH 111A, AH 111B.
Visual and aesthetic interactions of color in painting. Application of color theory including color properties, functions, and meaning. Combines lecture, demonstration, and critique with hands-on exploration, problem solving.
Not open for degree credit to students with credit in ART 132. Letter grade only (A-F). (6 hours lab)

389. Materials and Techniques of Drawing and Painting (3)
Prerequisites: ART 130, ART 181, ART 184, ART 287; AH 111A, AH 111B.
Theory and practice in the craft of drawing and painting.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (6 hrs. lab.)

390. Drawing: Figures in Context (3)
Prerequisites: ART 371A or consent of instructor
Drawing from life based on the nude and draped human form and animal forms. Focus on short pose gestural drawing, emphasizing dramatic exaggeration of form and shape, movement, body language and character.
(6 hours lab) Course fee may be required. Letter grade only (A-F).

391. Animation 1 (3)
Prerequisite(s): ART 130, ART 181, ART 291 or consent of instructor.
Prerequisite(s)/Corequisite(s): ART 131, ART 184, ART 287; AH 111A, AH 111B.
Introduction to basic principles of traditional hand-drawn animation and creation of basic movement cycles using specific coordinating computer software. Focus on elements of weight, movement, timing and exaggeration. Provides an overview of alternative approaches to animation.
Not open to students with credit in ART 391A. Letter grade only (A-F). (6 hours lab) Course fee may be required.

392. Animation 2 (3)
Prerequisite: ART 391.
Continued study of basic principles of traditional hand drawn animation and alternative approaches learned in ART 391. Focus on weight, movement, timing, exaggeration, dramatic staging, and narrative structure. Provides further development of animating skills. Specific coordinating computer software is used.
Not open for credit to students with credit in ART 391B. Letter grade only (A-F). (6 hours lab) Course fee may be required.

393. Character Design (3)
Prerequisite/Corequisite: ART 371A or consent of instructor.
Introduction to basic principles of character design. Overview of stylistic approaches for commercial and alternative applications. Focus on creating original and believable characters with drawing and use of relevant computer software.
(6 hours lab) Course fee may be required. Letter grade only (A-F).

401./501. Cross-cultural and Community-based Practices in Art (3)
Prerequisites: Completion of 12 units of Art Foundation. Study of theory and practice in art within a cross-cultural and social justice framework. Applies pedagogical and experiential methodologies to art education practices in a community-based setting. A minimum of 15 hours of community service learning required.
Letter grade only (A-F). (6 hrs. lab.)

406A./506A. Digital Imagery for the Arts (3)
Prerequisites: ART 149, ART 340, or consent of instructor.
Examination of digital imaging through Adobe Photoshop software. Emphasis on relationship of digital imaging to photography. Exercises to develop skills, strategies and fluency for working in digital media. Concentration on theory of media and representation as well as individual projects.
(6 hrs lab.) Letter grade only (A-F). Course fee may be required.

406B./506B. Advanced Digital Imagery for the Arts (3)
Prerequisites: ART 406A.
Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

407. Art Practicum (3)
Prerequisite: Completion of 12 units of Art Foundation. Attitude and skill development for production, evaluation, and appreciation of visual arts. Consideration for art processes and product in ethnically diverse societies. Inquiry methods of artists, critics, historians, and aestheticians examined for active learning. Art Education Bound Portfolio addressed.
Course fee may be required. (6 hrs lab) Letter grade only (A-F).

408./508. Perspectives in Contemporary Art Education (3)
Examines historical and philosophical foundations of art education globally from antiquity to the present, emphasizing developments in America. Social, political, and economic factors; theoretical developments; notable theoreticians are explored in relation to contemporary art education practice.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters.

409. Educational Practices in the Art Museum. (3)
Prerequisites: 12 units of art foundation or Permission of Instructor. History, theory, and application of art museum education practices with a significant museum fieldwork component. Designed for art students interested in learning about and working in the field of art museum education.
Letter grade only (A-F).
412. Aesthetic Theories and Art Education (3)
Prerequisites: Completion of 12 units of Art Foundation.
Past and current philosophical writings of aestheticians, critics, artists, and art educators will be investigated with theoretical, practical, and cross-cultural implications for the arts educator.
Letter grade only (A-F).

414. Documentary Photography (3)
Prerequisites: ART 340, ART 444, or consent of instructor.
History, theory, practice, and production of still documentary photographic works with emphasis on the photograph as an instrument for social influence and change.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

415. On-Site Studies in Art Education (3)
Prerequisites: Completion of 12 units of Art Foundation.
Theory generated and practiced during study and participation at approved sites including The Art Workshop for Youth and Art to Schools Program. Consideration to state and national standards involving multifaceted, cross-cultural, and interdisciplinary experiences with art.
(6 hrs lab) Letter grade only (A-F).

416. Animation 3 (3)
Prerequisites: ART 392.
Pursuit of advanced skills in traditional hand-drawn 2D animation principles and techniques that allow students to develop towards professional standards. Emphasis will be on character performance and acting, directing and film making, and creating a professional reel.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

417. Animation 4 (3)
Prerequisites: ART 416.
Further development in advanced traditional hand-drawn 2D animation principles and techniques that allow students to continue towards professional standards. Focus will be on completion of short animated projects for inclusion on a professional animation reel.
Letter grade only (A-F). (6 hrs. lab.)

418. Visual Development (3)
Prerequisite: BFA Illustration/Animation major.
For Illustration Track: ART 371B, ART 372; or consent of instructor.
For Animation Track: ART 391; ART 392 or ART 476; or consent of instructor.
Visual development of environments, backgrounds, architecture, and props using research, sketching, editing, lighting, and color to create dramatic, stylized designs for animation, live action, and gaming. Primary goal is to provide a clear methodology to generate original inventive work.
Letter grade only (A-F). (6 hrs lab)

419. Media Design: 5D; Designing the Future (3)
BFA Graphic Design Major of consent of instructor.
Advanced Media Design Course, emphasizing the invention of new design paradigms in the evolving landscape of immersive technologies.
Letter grade only (A-F). (6 hrs lab)

420. Graphic Design Workshop (3)
Prerequisite: Consent of instructor and portfolio review; majors only.
On-campus design studio experience oriented toward development of printed portfolio-quality design work. Professional designer/art director environment with involvement in actual projects with clients, budgets and deadlines. Students responsible for all project phases from design to production, print supervision and completion.
May be repeated to a maximum of 9 units. (6 hrs. lab.) Letter grade only (A-F).

421. Advanced Typography (3)
Prerequisite(s): ART 223 and 318, BFA Graphic Design Major or consent of instructor.
Emphasis on advanced/highly-detailed informational layout, traditional and experimental typeface design and exploration of historical and contemporary typographic forms.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

423. Graphic Design VI: Advanced Topics (3)
Prerequisites: ART 334, ART 335, ART 336, ART 337
Advanced projects in areas such as branding, design systems development and cross-media work.
Letter grade only (A-F). (6 hrs. lab.) Student-owned laptop computer is required. See School website for current hardware and software specifications.

424. Advertising III: Advanced Topics (3)
Prerequisites: ART 335, ART 423
Advanced advertising course allowing students to produce work based on their area of interest. It is public service oriented.
Letter grade only (A-F). (6 hrs. lab.) Student-owned laptop computer is required. See School website for current hardware/software specifications.

426. Computer Animation 1 (3)
Prerequisites: ART 391 or ART 476 or consent of instructor.
Introduction to animating with 3D computer animation software. Explores basic three-dimensional computer generated animation, including modeling, rigging, lighting, texturing and camera set-up with emphasis on character animation. Integration of elements within the animation process will be investigated.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

427. Computer Animation 2 (3)
Prerequisite: ART 426.
Continued investigation of 3D computer generated animation using industry standard computer software. Focus will be on advanced character animation with an emphasis on character performance and advanced computer animation techniques.
Letter grade only (A-F). Course fee may be required. (6 hrs lab)

428A. Fiber: Weaving, Dyeing, Woven Structures (3)
Prerequisites: ART 130, ART 131; AH 111A, AH 111B.
Exploration of weaving and dyeing methods using a wide variety of techniques and materials. Emphasis on personal expression within the contemporary idiom.
Letter grade only (A-F). (6 hrs. lab.)

428B. Fiber: Weaving, Dyeing, Woven Structures (3)
Prerequisites: ART 428A.
Focus on woven structural textiles of greater complexity. Includes dyed and woven Ikat, multi-layered construction, and use of the Compu-doby loom.
Letter grade only (A-F). (6 hrs. lab.)

430. Fiber: Artist Books and Papermaking (3)
Prerequisites: ART 130, ART 131; AH 111A, AH 111B.
Basic materials and techniques of papermaking and handmade artist books with an emphasis on concept and form development.
May be repeated to a maximum of 6 units in different semesters.
Letter grade only (A-F). (6 hrs. lab.)
432. Fiber and Mixed Media: Advanced (3)
Prerequisites: ART 130, ART 131, ART 181; ART 132 or ART 287;
ART 317 or ART 328A; ART 428A or ART 430.
Designed for the advanced Fiber students. Conceptual assignments use materials and media from a wide range of fiber processes. Reading assignments and group discussions. May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F). (6 hrs. lab.)

436A./536A. Sculpture/4D: Video Art (3)
Prerequisites: ART 130 or ART 131; AH 111A or AH 111B, or consent of instructor.
Historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media. Letter grade only (A-F). (6 hrs. lab.) Course fee may be required.

436B./536B. Sculpture/4D: Video Art (3)
Prerequisite: ART 436A.
Continuation of ART 436A with more advanced projects, introduction of more specialized software and equipment, and alternative modes of display. Letter grade only (A-F). (6 hrs. lab.) Course fee may be required.

440./540. Art in Public Places: Theory and Practice (3)
Prerequisites: ART 130, ART 131, and 6 units selected from AH 111A, AH 111B, or consent of instructor.
Exploration of theory and practice of developing, proposing and producing artist-initiated and commissioned temporary and permanent works for the public sphere. Historical overview of the field of public art. Consideration of viewpoints influencing evaluation, production, selection, and commissioning of works.

442. Internship in Graphic Design (3)
Prerequisite: Graphic Design Major or consent of instructor.
Student internship experience in selected studios, advertising agencies and in-house creative departments. Opportunity to work under supervision of professionals in the field for 6 hrs. per week.

444./544. Advanced Black and White Photography (3)
Prerequisite: ART 340.
Presentation of advanced printing techniques and darkroom skills. Including printing chemistry, refined negative making, printing materials and supports. Extensive exploration of the view camera. Letter grade only (A-F). Course fee may be required.

447A. Photography Studio Specialties (3)
Prerequisites: ART 340.
Designed to explore camera, laboratory techniques and professional practices as applied to studio work in photography. Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

447B. Advanced Studio Lighting (3)
Prerequisites: ART 241, ART 340, and ART 447A
Continuation of ART 447A. Advanced lighting, camera, laboratory techniques and professional practices as applied to studio and editorial work in photography. Letter grade only (A-F). (6 hours lab) Course fee may be required.

448. The Moving Image (3)
Prerequisite(s) ART 342A or consent of instructor.
Studio course examines relationship between photography and the moving image within the broader context of art. Students produce their own time-based projects through an exploration of cinema, video art, nonfiction, and new media forms. (6 hours activity)
Letter grade only (A-F).

449. Experimental Practices in Photography (3)
Prerequisites: ART 340.
Course work to generate experimental solutions to conceptual problems. Emphasis placed on contemporary approaches to the photograph and the exploration of new ideas for the development of photographic art.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

450A. Sculpture/4D: Intermedia/New Genres (3)
Prerequisites: ART 241 or ART 263, or consent of instructor.
Exploration of media and strategies including performance, installation, video, electronic and other time-based practice with emphasis on participatory, relational, installation and presentational concerns.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

450B. Sculpture/4D: Intermedia/New Media (3)
Prerequisite: ART 450A or consent of instructor.
Continuation of ART 450A. Exploration of media and strategies including performance, installation, video, electronic and other time-based practice with emphasis on newly developed and emergent media.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

451A-B. Advanced Ceramics (3-3)
Prerequisite: A. BFA Ceramic major; ART 343A or ART 343B; completion of all 100 level degree requirements for ART and AH or consent of instructor.
B. BFA Ceramic major; ART 451A, or consent of instructor.
Advanced study and individual problems in ceramics. Focus on production, contextualization, presentation and critique of advanced work.

453. Seminar in Ceramic Arts (3)
Prerequisite: Senior Ceramics major or consent of instructor.
Critical analysis of work of historical and contemporary ceramic artists; the changing role of ceramic art as it becomes part of the contemporary art mainstream.
May be repeated to a maximum of 6 units with different artists in different semesters. Letter grade only (A-F).

454A,B. Advanced Wood (3,3)
Prerequisites: ART 354A and ART 354B.
Development of individual problems and expression in creation of wooden art/craft structures. Emphasis on exploring personal expression through focused study of chosen techniques and discussion of related wood issues and aesthetics.

458A,B. Advanced Metalsmithing/ Jewelry and Enameling (3,3)
Prerequisites: ART 357B, ART 358B or consent of instructor.
Individual problems in metalsmithing, jewelry, enameling and architectural metalwork and blacksmithing.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).
460A. Sculpture/4D: Advanced (3)
Prerequisite: ART 360A or consent of instructor.
Advanced seminar/critique course for students working in a range of approaches to sculpture and 4D media. Emphasis on critical analysis of work, individual art practice, group discourse and current critical and theoretical issues.
(6 hrs. lab) Letter grade only (A-F).

460B. Sculpture/4D: Advanced (3)
Prerequisite: ART 460A or consent of instructor.
Within problem-solving assignments, students work with media and content of choice, exploring new materia. Utilize strategies such as installations, site work, time-based art, includes some theory and discussions on art-related issues.
(6 hrs. lab) Letter grade only (A-F).

461. Sculpture/4D: Advanced Sculpture from Observation (3)
Prerequisites: ART 361 or consent of instructor.
Historical, theoretical and technical emphasis on a wide array of approaches in observational study: from figurative traditions, to interpretive abstraction, as well as observational study as an exploration of the social field. Non-medium specific.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

471A. Advanced Illustration (3)
Prerequisites: For ART 471A: ART 371B: For ART 471B: ART 471A.
Illustration in part from live models.
ART 471B is open only to students in the Illustration option.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F).

472./572. Storyboarding for Film and Television (3)
Prerequisites: BFA Illustration-animation major.
For Illustration Track: ART 371B, ART 372, or consent of instructor.
For Animation Track: ART 391; ART 392 or ART 476; or consent of instructor.
Storyboarding for television and feature films application. Focus on sequential structure of film including pacing and continuity related to storytelling. Discussion of camera movement, use of storyboards. Emphasis on drawing skills needed to visually communicate ideas for entertainment industry.
(6 hrs. lab.) Letter grade only (A-F). Course fee may be required.

473./573. Seminar in Photo-Based Art (3)
Prerequisite: ART 444 or consent of instructor.
Critical analysis of work by contemporary photo-based artists and investigation of relevant theoretical issues.
May be repeated to a maximum of 6 units with rotating topics in different semesters. Letter grade only (A-F).

474./574. Seminar in Sculpture and Time-Based Art (3)
Prerequisites: ART 261 or ART 263, or consent of instructor.
Critical analysis of contemporary sculpture and time-based art practice, and investigation of key theoretical, historical and contemporary issues.
Letter grade only. May be repeated to a maximum of 6 units in different semesters.

475./575. Printmaking: Photo and Digital Processes (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in the photo printmaking processes for lithography, etching, and silkscreen using digital and analog techniques to explore photographic and non-photographic imagery.
(6 hrs. lab.) Letter grade only (A-F).

476./576. Experimental Animation 1 (3)
Prerequisites: ART 130, ART 131, ART 181, ART 184.
Investigation of a variety of basic animation techniques as alternatives to traditional hand-drawn character animation with emphasis on understanding movement, weight, timing, and sequential aesthetics.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

478./578. Experimental Animation 2 (3)
Prerequisite: For ART 478: ART 476. For ART 578: ART 576.
Further investigation of principles and techniques of alternative approaches to traditional hand-drawn character animation learned in ART 476. Focus on weight, movement, timing, and time-based aesthetic strategies. Provides continued development of animating skills. Specific coordinating computer software is used.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

480./580. Printmaking: Monotype/Monoprint (3)
Prerequisites: ART 130, ART 181; 3 units from AH 111A, AH 111B.
Instruction in all aspects of monotype and monoprint form of printmaking as expansive medium capable of diverse applications and linkages with other procedures and disciplines. Emphasis on extension and refinement of individual expression. Black and white and color.
(6 hrs. lab.) Letter grade only (A-F).

481. Advanced Drawing (3)
Prerequisite: ART 381.
Advanced problems and concepts in drawing designed to explore modes of representation and issues pertaining to contemporary drawing.
(6 hrs. lab.) Letter grade only (A-F). May be repeated to a maximum of 6 units.

482./582. Sequential Imagery (3)
Prerequisites: For Illustration Track majors: ART 223, ART 371B. For Animation Track majors: ART 371A.
Focuses on the book or magazine (electronic or print) as an art form and the image/word relationship within the context of sequential aesthetics. Addresses the editorial and visual issues of pacing, continuity, and closure.
Letter grade only (A-F). Course fee may be required. (6 hrs lab.)

483. Advanced Life Painting (3)
Prerequisite: ART 383.
Continued study in painting from the human figure with emphasis on pictorial structure, color and individual expression.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F). May be repeated to a maximum of 6 units.

484. Advanced Life Drawing (3)
Prerequisites: ART 384 or consent of instructor.
Continued study in drawing the human figure from observation with emphasis on structure, form and composition, as well as individual expression.
Course fee may be required. (6 hrs. lab.) Letter grade only (A-F). May be repeated to a maximum of 6 units.

486. Media Design: Advanced Topics (3)
Prerequisites: ART 365 or ART 366 or equivalent, or consent of instructor.
Advanced course developing student’s ability to create interactive experiences. Students start building smart interactions within non-linear environments and/or narrative structures.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)
487. Advanced Painting (3)
Prerequisite: ART 387.
Continued study in studio painting, exploring advanced modes of pictorial structure with emphasis on individual expression. (6 hrs. lab.) Letter grade only (A-F). May be repeated to a maximum of 6 units.

489. Selected Topics in Visual Art (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in the visual arts selected for intensive study.
May be repeated to a maximum of 12 units with different topics.
Topics announced in the Schedule of Classes.

490. Selected Topics in Studio Art (1-3)
Prerequisites: Consent of instructor.
Topics of current interest in the visual arts selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes. (6 hrs. lab.)

491A. Ceramics: Senior Project (1)
Prerequisite: ART 451A or ART 451B or consent of instructor.
Planning, preparation, completion, and photographic slide documentation of a creative exhibition and written thesis as approved by faculty.
Should be taken in last semester before graduation. Required of all BFA ceramics majors. Letter grade only (A-F). May be repeated to a maximum of 2 units.

491B. 3-D Media-Senior Project (1)
Prerequisite: 3-D Media major or consent of instructor.
Organizing, completing, and photographing (35mm slides) a creative exhibition of their work. Exhibition culminates with written thesis with faculty approval.
Should be taken in the last semester before graduation. Required of all 3-D Fiber, Wood, Metal and Integrated Media majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units in the same semester.

491C. Photography - Senior Project (1)
Prerequisite: Consent of instructor.
Planning, preparation, completion, and photographic slide documentation of a creative exhibition and written thesis as approved by faculty.
Should be taken in the last semester before graduation. Required of all Photography majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units.

491E. Illustration/Animation Senior Project (1)
Prerequisites: Senior Illustration/Animation Major.
Prerequisite(s)/Corequisite(s): For Illustration Track Majors: ART 471B. For Animation Track Majors: ART 499E
Planning, preparation, and participation in program group exhibition. Submission of digital files of artwork from exhibition to program head. Required by all Illustration/Animation majors. Should be taken in the final semester of student's BFA program. Credit/No Credit grading only. (2 hrs. lab)

491F. Sculpture/4D Senior Project (1)
Prerequisites: Senior Sculpture major; consent of instructor.
Students complete work, organize exhibition and write an Artist's Statement.
Required by all Sculpture majors. Should be taken in the final semester of a student's BFA program. Credit/No Credit grading only.

491G. Drawing and Painting: Senior Project (1)
Prerequisite: ART 496A. Corequisite: ART 496B.
Planning and installation of a public exhibition of creative work completed in ART 496 A-B. Credit/No credit grading only. (2 hours lab.)

491P. Printmaking: Senior Project (1)
Planning, preparation, completion, and photographic slide documentation of a creative exhibition and a written expanded artist's statement as approved by faculty.
Should be taken in the last semester before graduation. Required of all Printmaking majors. Credit/No Credit grading only. May be repeated to a maximum of 2 units.

492F. Concentrated Studies in Life Drawing (3)
Prerequisites/Corequisites: ART 384 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in life drawing.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. Course fee may be required. (6 hrs. lab.)

492G. Concentrated Studies in Abstract Painting (3)
Prerequisites/Corequisites: ART 387 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in abstract and nonobjective painting and drawing.
May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

492Z/592Z. Concentrated Studies in Life Painting (3)
Prerequisite: ART 383 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in painting the human figure. A more open relationship in attitudes and processes of working from the figure in class and total self-direction on work done outside the class.
Letter grade only (A-F). May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. Course fee may be required. (6 hrs. lab.)

495. Field Studies in Art (1-6)
Independent work with an instructor of student's choice, usually outside area of specialization.
School Chair or Undergraduate/Graduate Advisor approval, restricted to undergraduate and graduate art majors. (2-12 hrs. lab.) Letter grade only (A-F).

496A. BFA Capstone: Drawing and Painting (3)
Prerequisites: Drawing and Painting major. Completion of 6 to 12 units of required 400 level classes in Drawing and Painting including (but not limited to) ART 481 or ART 487 and ART 483 or ART 484.
Extensive work with faculty supervision on individual problems in drawing and/or painting. First of two sequential semesters, limited to three units each semester, totaling 6 units as the culmination of a student's BFA degree program in Drawing and Painting. Letter grade only (A-F) (6 hours lab.)

496B. BFA Capstone: Drawing and Painting (3)
Prerequisite: ART 496A. Corequisite: ART 491G.
Extensive work with faculty supervision on individual problems in drawing and/or painting. Second of two sequential semesters, limited to three units each semester, totaling 6 units as the culmination of a student's BFA degree program in Drawing and Painting.
Letter grade only. (6 hours lab.)
499A. Special Studies in Ceramics (3)
Prerequisite: Ceramics major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in ceramics.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Letter grade only (A-F).

499B. Special Studies in Wood (3)
Prerequisite: ART 354B or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems using wood as the media.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499D. Special Studies in Drawing (3)
Prerequisite: ART 381; Drawing and Painting Major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in drawing.
May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499E. Special Studies in Animation (3)
Prerequisite: BFA Illustration/Animation Major, ART 311, or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems related to animation.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499F. Special Studies in Illustration (3)
Prerequisite: Illustration major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in illustration or biomedical art.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499G. Special Studies in Metalsmithing and Jewelry (3)
Prerequisite: 3-D Media major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in metalsmithing and jewelry.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499H. Special Studies in Printmaking (3)
Prerequisite: Printmaking major or consent of instructor.
Opportunity for extensive contract work with faculty supervision on individual problems in printmaking.
Letter grade only (A-F). May be repeated to a total of 9 units in different semesters. (6 hrs. lab.)

499J. Special Studies in Painting (3)
Prerequisite: ART 387, Drawing and Painting Major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in painting.
Letter grade only (A-F). May be taken for a maximum of 3 units in the same semester and a maximum of 9 units in different semesters. (6 hours lab.)

499K. Special Studies in Life Sculpture (3)
Prerequisite: Sculpture major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in sculpture.
Letter grade only (A-F). May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Course fee may be required.

499L. Special Studies in Ceramics/4D (3)
Prerequisites: Sculpture major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in sculpture.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. Letter grade only (A-F). (6 hours lab.)

499M. Special Studies in Fiber and Mixed Media (3)
Prerequisite: 3-D Media major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in textile design.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. (6 hrs. lab.)

499N. Special Studies in Sculpture/4D (3)
Prerequisites: Sculpture major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in sculpture.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. Letter grade only (A-F). (6 hours lab.)

499P. Special Studies in Art Education (3)
Prerequisite: Art Education major or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in art education.
May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. Letter grade only (A-F). (6 hrs. lab.)

499Q. Special Studies in Graphic Design (3)
Prerequisite: Graphic Design major or consent of instructor.
Opportunity for extensive work with faculty supervision on problems in visual communications design.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and a total of 9 units in different semesters. (6 hrs. lab.)

499R. Special Studies in Art Photography (3)
Prerequisites: ART 342A or consent of instructor.
Opportunity for extensive work, with faculty supervision, on individual problems in photography as an art form.
Letter grade only (A-F). May be repeated to a total of 9 units in different semesters. Course fee may be required. (6 hrs. lab.)

GRADUATE LEVEL

501./401. Cross-cultural and Community-based Practices in Art (3)
Prerequisites: Graduate student in Art or consent of instructor.
Study of theory and practice in art within a cross-cultural and social justice framework. Applies pedagogical and experiential methodologies to art education practices in a community-based setting. A minimum of 15 hours of community service learning required.
Letter grade only (A-F). (6 hrs. lab.)

506A./406A. Digital Imagery for the Arts (3)
Prerequisites: Graduate student in Art or consent of instructor.
Examination of digital imaging through Adobe Photoshop software. Applications of digital imaging and advanced techniques. Emphasis on multimedia and individual projects.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.

506B./406B. Advanced Digital Imagery for the Arts (3)
Prerequisites: Graduate student in Art or consent of instructor.
Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.
508./408. Perspectives in Contemporary Art Education (3)
Examines historical and philosophical foundations of art education globally from antiquity to the present, emphasizing developments in America. Social, political, and economic factors; theoretical developments; notable theoreticians are explored in relation to contemporary art educational practice.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters.

509. Educational Practices in the Art Museum. (3)
History, theory, and application of art museum education practices with a significant museum fieldwork component. Designed for art students interested in learning about and working in the field of art museum education.
Letter grade only (A-F).

509A-B. Research in Art Education (2-2)
Prerequisites: Graduate student in Art or consent of instructor. Advanced individual graduate problems in art education with projects related to specific learning situations.
Letter grade only (A-F) May be repeated to a maximum of 9 units in different semesters.

512./412. Aesthetic Theories and Art Education (3)
Past and current philosophical writings of aestheticians, critics, artists, and art educators will be investigated with theoretical, practical, and cross-cultural implications for the arts educator.
Letter grade only (A-F).

514./414. Documentary Photography (3)
Prerequisite: Graduate student in Art or consent of instructor. History, theory, practice, and production of still documentary photographic works with emphasis on the photograph as an instrument for social influence and change.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

516./416. Animation 3 (3)
Prerequisite: Graduate student in Art or consent of instructor. Pursuit of advanced skills in traditional hand-drawn 2D animation principles and techniques that allow students to develop towards professional standards. Emphasis will be on character performance and acting, directing and film making, and creating a professional reel.
Letter grade only (A-F). Course fee may be required. (6 hrs. lab.)

519./419 Media Design: 5D; Designing the Future (3)
Advanced Media Design Course, emphasizing the invention of new design paradigms in the evolving landscape of immersive technologies.
Letter grade only (A-F). (6 hours lab)

521./421. Animation 4 (3)
Prerequisites: ART 516 or consent of instructor. Further development in advanced traditional hand-drawn 2D animation principles and techniques that allow students to continue towards professional standards. Focus will be on completion of short animated projects for inclusion on a professional animation reel.
Letter grade only (A-F). (6 hrs. lab.)

526./426. Computer Animation 1 (3)
Prerequisites: Graduate Student in Art or consent of instructor. Introduction to animating with 3D computer animation software. Explore basic three-dimensional computer generated animation, including modeling, rigging, lighting, texturing and camera set-up with emphasis on character animation. Integration of elements within the animation process will be investigated.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

527./427. Computer Animation 2 (3)
Prerequisite: ART 526. Continued investigation of 3D computer generated animation using industry standard computer software. Focus will be on advanced character animation with an emphasis on character performance and advanced computer animation techniques.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

536A./436A. Sculpture/4D: Video Art (3)
Prerequisites: Graduate student in Art or consent of instructor. Historical/theoretical and practical/technical introduction to digital video and other art practices involving digital media.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required.

536B./436B. Sculpture/4D: Video Art (3)
Prerequisites: ART 536A. Continuation of ART 536A with more advanced projects, introduction of more specialized software and equipment, and alternative modes of display.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.

540./440. Art in Public Places: Theory and Practice (3)
Prerequisites: Graduate student in Art or consent of instructor. Exploration of theory and practice of developing, proposing and producing artist-initiated and commissioned temporary and permanent works for the public sphere. Historical overview of the field of public art. Consideration of viewpoints influencing evaluation, production, selection, and commissioning of works.
Letter grade only (A-F). (6 hrs. Lab.) May be repeated to a maximum of 9 units in different semesters.

544./444. Fine Print Photography (3)
Prerequisites: Graduate student in Art or consent of instructor. Presentation of advanced printing techniques and darkroom skills. Including printing chemistry, refined negative making, printing materials and supports. Extensive exploration of the view camera.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.

547./447. Photo Studio Specialties (3)
Prerequisites: Graduate student in Art or consent of instructor. Designed to give exploration of camera and laboratory techniques as applied to studio work in photography. Related photo assignments of studio and location problems will be given
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.

549./449. Experimental/Alternative Practices in Photography (3)
Prerequisites: Graduate student in Art or consent of instructor. Experimental solutions to conceptual problems. Emphasis on Alternative Processes, non-traditional photographic processes, exploration of new ideas and procedures for the development of art work and meaning significant to each individual student.
Letter grade only (A-F). (6 hrs. lab.) Course fee may be required. May be repeated to a maximum of 9 units in different semesters.

550. Sculpture/4D: Intermedia/New Genres/New Media (3)
Prerequisites: Graduate student in Art or consent of instructor. Exploration of media and strategies including performance, installation, video, electronic and other time-based practice with emphasis on participatory, relational, instalational and presentational concerns and newly developed and emergent media.
Letter grade only (A-F). May be repeated to a maximum of 9 units in different semesters. Course fee may be required. (6 hours lab)
551A. Advanced Ceramics - Graduate (3)
Prerequisites: Graduate student in Art or consent of instructor.
Opportunity for beginning graduate students to do research employing various ceramics materials, processes and visual solutions in preparation for a more narrow and concentrated study.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

551B. Advanced Ceramics - Graduate (3)
Prerequisite: ART 551A.
Selection of a specific area of concentration in ceramics, limiting the materials and processes to develop a project which will reflect a predetermined statement.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

554A,B. Wood - Graduate (3,3)
Prerequisite: Graduate student in Art or consent of instructor.
Development of individual problems and expression in the creation of wooden art/craft structures. Emphasis on exploring personal expression through focused study of chosen techniques and the discussion of related wood issues and aesthetics.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

558A. Metalsmithing, Jewelry and Enameling (3)
Prerequisite: 3-D Media major or consent of instructor.
Individual graduate level studio projects involving investigation of materials, processes and visual solutions in preparation for more concentrated study in metalsmithing, jewelry, enameling, or architectural metalwork and blacksmithing.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 9 units in different semesters. (6 hrs. lab.)

558B. Metalsmithing, Jewelry and Enameling (3)
Prerequisite: 3-D Media major or consent of instructor.
Selection of a specific area of concentration in metalsmithing and jewelry, enameling, or architectural metalwork and blacksmithing; focus on creative objectives based on a projected theme.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 9 units in different semesters. (6 hrs. lab.)

564A,B. Advanced Wood Studio - Graduate (3,3)
Prerequisites: Graduate student in Art or consent of instructor.
Development of individual skill, technique, and concept through the exploration of a unique and personal language in wood. Creation of body of work supported by research projects on related work and concepts in the field.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

572./472. Storyboarding for Film and Television (3)
Prerequisites: Graduate student in Art or consent of instructor.
Storyboarding for television and feature films application. Focus on sequential structure of film including pacing and continuity related to storytelling. Discussion of camera movement, uses of storyboards. Emphasis on drawing skills needed to visually communicate ideas for entertainment industry.
Letter grade only (A-F). May be repeated to a maximum of 9 units in different semesters. Course fee may be required. (6 hrs. lab.)

573./473. Seminar in Photo-Based Art (3)
Prerequisite: Graduate student in Art.
Critical analysis of work by contemporary photo-based artists and investigation of relevant theoretical issues.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different artists in different semesters.

574./474. Seminar in Sculpture and Time-Based Art (3)
Prerequisites: Graduate student in Art or consent of instructor.
Critical Analysis of contemporary sculpture and time-based art practice, and investigation of key theoretical, historical and contemporary issues.
Letter grade only (A-F).

575./475. Printmaking: Photo and Digital Processes (3)
Prerequisites: Graduate student in Art or consent of instructor.
Instruction in the photo printmaking processes for lithography, etching, and silkscreen using digital and analog techniques to explore photographic and non-photographic imagery.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

576./476. Experimental Animation 1 (3)
Prerequisites: Graduate student in Art or consent of instructor.
Investigation of a variety of basic animation techniques as alternatives to traditional hand-drawn character animation with emphasis on understanding movement, weight, timing, and sequential aesthetics.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

578./478. Experimental Animation 2 (3)
Prerequisite: ART 576.
Further investigation of principles and techniques of alternative approaches to traditional hand-drawn character animation learned in Art 576. Focus on weight, movement, timing, and time-based aesthetic strategies. Provides continued development of animating skills. Specific coordinating computer software is used.
Letter grade only (A-F). Course fee may be required. (6 hours lab)

580./480. Printmaking: Monotype/Monoprint (3)
Prerequisites: Graduate student in Art or consent of instructor.
Instruction in all the aspects of the monotype and monoprint form of printmaking as an expansive medium capable of divergent applications and linkages with other procedures and disciplines. Emphasis will be on the extension and refinement of individual expression. In black and white and color.
Letter grade only (A-F). (6 hrs. lab.) May be repeated to a maximum of 9 units in different semesters.

582./482. Sequential Imagery (3)
Prerequisites: Graduate student in Art or consent of instructor.
Focuses on the book or magazine (electronic or print) as an art form and the image/word relationship within the context of sequential aesthetics. Addresses the editorial and visual issues of pacing, continuity, and closure.
Letter grade only (A-F). (6 hrs lab) May be repeated to a maximum of 9 units in different semesters. Course fee may be required.

583. Advanced Life Graduate Painting (3)
Prerequisites: Graduate student in Art or consent of instructor.
Intensive studio course in painting from the model for graduate students.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 9 units in different semesters. (6 hrs. lab.)

589. Selected Topics in Visual Art (1-3)
Prerequisites: Consent of instructor.
Topics of current interest in the visual arts selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes.
590. Selected Topics in Studio Art (1-3)
Prerequisites: Consent of instructor.
Special topics of current interest in studio art will be selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes.
(2-6 hrs. lab.)
A. Visiting Artists

592Z./492Z. Graduate Concentrated Studies in Life Painting (3)
Prerequisites: Graduate student in Art or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in painting the human figure. A more open relationship in attitudes and processes of working from the figure in class and total self-direction on work done outside class.
Letter grade only (A-F). May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. Course fee may be required. (6 hrs. lab)

597A. Graduate Studies: Ceramics (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Ceramics. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597B. Graduate Studies: Wood (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Wood. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597D. Graduate Studies: Drawing (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Drawing. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597F. Graduate Studies: Illustration/Animation (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Illustration/Animation. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597J. Graduate Studies: Metal (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Metal. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597K. Graduate Studies: Painting (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Painting. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597L. Graduate Studies: Life Drawing and Painting (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Life Drawing and Painting. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. Course fee may be required. (6 hrs. lab)

597M. Graduate Studies: Life Sculpture (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Life Sculpture. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597N. Graduate Studies: Fiber (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Fiber. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597O. Graduate Studies: Printmaking (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Printmaking. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597S. Graduate Studies: Visual Communication Design (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Visual Communication Design. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

597V. Graduate Studies: Photography (3)
Prerequisites: Graduate M.F.A student or consent of instructor.
Variable topics course within discipline of Photography. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598A. Graduate Studies: Advanced Ceramics (3)
Prerequisites: Graduate M.F.A student and 12 units ART 597A.
Variable topics course for advanced graduate study within discipline of Ceramics. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)
598B. Graduate Studies: Advanced Wood (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597B.
Variable topics course for advanced graduate study within discipline of Wood. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598D. Graduate Studies: Advanced Drawing (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597D.
Variable topics course for advanced graduate study within discipline of Drawing. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598F. Graduate Studies: Advanced Illustration/Animation (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597F.
Variable topics course for advanced graduate study within discipline of Illustration/Animation. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598J. Graduate Studies: Advanced Metal (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597J.
Variable topics course for advanced graduate study within discipline of Metal. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598K. Graduate Studies: Advanced Painting (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597K.
Variable topics course for advanced graduate study within discipline of Painting. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598L. Graduate Studies: Advanced Life Drawing and Painting (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597L.
Variable topics course for advanced graduate study within discipline of Life Drawing and Painting. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. Course fee may be required. (6 hrs. lab)

598M. Graduate Studies: Advanced Life Sculpture (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597M.
Variable topics course for advanced graduate study within discipline of Life Sculpture. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598N. Graduate Studies: Advanced Fiber (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597N.
Variable topics course for advanced graduate study within discipline of Fiber. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598O. Graduate Studies: Advanced Sculpture/4D (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597O.
Variable topics course for advanced graduate study within discipline of Sculpture/4D. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598R. Graduate Studies: Advanced Printmaking (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597R.
Variable topics course for advanced graduate study within discipline of Printmaking. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

598S. Graduate Studies: Advanced Visual Communication Design (3)
Prerequisites: Graduate M.F.A. student and 12 units ART 597S.
Variable topics course for advanced graduate study within discipline of Visual Communication Design. Studio, activity, critique, and discussion course with focus and assignments changing each semester.
Letter grade only (A-F). May be repeated to a maximum of 12 units; 9 units in the same semester with different instructors. (6 hrs. lab)

599. Graduate Studies: Special Studio (3)
Prerequisites: Graduate M.F.A. student and consent of Instructor and consent of School of Art Graduate Advisor.
Specialized graduate study projects, with faculty supervision, in a specific discipline.
Letter grade only (A-F). May be repeated to a maximum of 9 units with same topic in the same semester. Area will be designated by letter at time of registration. (6 hrs lab)

F. Illustration/Animation

601A-B. Seminar in Art Education (3-3)
Prerequisite: Graduate student in Art Education or consent of instructor.
Special studies, research and evaluation of the role of the art teacher. ART 601A is required for the M.A. in Art Education; ART 601B may be required by the student’s M.A. committee. Letter grade only (A-F).

651. Seminar in Ceramic Art (3)
Prerequisite: Graduate student in Ceramics or consent of instructor.
Critical analysis of work of historical and contemporary ceramic artists; the changing role of ceramic art as it becomes part of the contemporary art mainstream.
May be repeated to a maximum of 12 units with different artists in different semester. Letter grade only (A-F).

680. Graduate Interdisciplinary Critique (3)
Critique and discussion forum for graduate students in all areas of studio practice, and from all School of Art programs. Emphasis on development of critical discussion and writing skills. Group meetings and individual meetings with instructor.
Letter grade only (A-F). May be repeated to a maximum of 9 units in different semesters. Not open for credit to students with credit in ART 591.
681. Graduate Studies: Art Theory/Criticism (3)
Prerequisite: Graduate M.F.A. student or consent of instructor
Seminar involving selected reading and writing concerning topics relevant to student’s specific disciplines on the visual arts with an opportunity for interdisciplinary discussion.
Letter grade only (A-F). Not open for credit to students with credit in ART 690A. May be repeated to a maximum of 6 units in different semesters.

682. Graduate Studies: Professional Practices for Studio Art (3)
Prerequisite: Graduate M.F.A. student or consent of instructor.
Seminar involving professional preparation for studio artists stressing practical concerns as well as current trends in art practices, theory and criticism.
Letter grade only (A-F). Not open for credit to students with credit in ART 690B.

683. Graduate Studies: Image as Text (3)
Prerequisites: Graduate M.F.A. student or consent of instructor.
Seminar focusing on issues of readability, signification meaning and ramifications of the construction and organization of visual imagery with emphasis on visual communications applications.
Letter grade only (A-F).

Prerequisites: Graduate M.F.A. student or consent of instructor.
Seminar involving professional preparation for illustrators, graphic designers, and individuals interested in entering visual communications fields.
Letter grade only (A-F).

685. Writing for Artists (3)
Prerequisite: Graduate MFA student or consent of instructor.
Graduate-level writing course from the artist’s point of view. Topics include writing artist’s statements, reading critically, analysis of research reflective of a studio practice, organizing and developing thoughts and arguments, self-editing and exploration of writing styles.
Letter grade only (A-F).

690M. 3-D Graduate Seminar (3)
Graduate seminar for 3D students. Examination of media, concerns, strategies relevant to the spectrum of contemporary three-dimensional art production. Includes critique of student work, readings, discussion and written assignments.
May be repeated to a maximum of 3 units in one semester and 9 units in different semesters. Letter grade only (A-F).

692. Project Exhibition (3)
Prerequisite: Advancement to Candidacy and a registration in ART 698 or ART 699. Open only to M.A. and M.F.A. candidates with Project Statement approval, consent of their graduate committee and an assigned exhibition date.
Planning, preparation, and installation of a public exhibition of creative work done for ART 698 or 699.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

693. Teaching Internship (3)
Opportunity to work with full-time Art faculty mentor on course preparation and instruction. Required for eligibility for Graduate Teaching Associate positions.
Restricted to graduate art majors. Letter grade only (A-F). May be repeated to a maximum 6 units. Only 3 units may be counted toward degree. (6 hrs. lab.)

694. Graduate Studies: Directed Studio (1)
Independent studies in creative studio.
School Chair or Graduate Advisor approval, restricted to graduate art majors. Student must enroll in three sections concurrently. Nine units required for MFA degree. No more than 9 units may be applied to MFA degree.
Letter grade only (A-F). May be repeated to a maximum of 12 units in the same semester.

695. Graduate Studies: Field Problems (1-6)
Opportunity to study artistic monuments, objects, theories, techniques or literature at appropriate off campus locations.
School Chair or Graduate Advisor approval, restricted to graduate art majors. Letter grade only (A-F). May be repeated to a maximum of 12 units in different semesters. (2-12 hrs. lab.)

697. Graduate Studies: Directed (1-3)
Independent studies in technical and/or historical aspects of art.
School Chair or Graduate Advisor approval, restricted to graduate art majors. Letter grade only (A-F). May be repeated to a maximum of 12 units in the same semester. (2-6) hrs. lab.

698A. Art Education Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and an approved Thesis or Project Statement.
Execution and completion of an approved thesis, or project, project report, documentation, orals and comprehensive exam. Open only to Art Education students. Required of all candidates for the MA in Art, specialization in Art Education.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.

698B. Studio Project (1-6)
Prerequisite: Advancement to Candidacy and an approved project statement. Execution and completion of an approved Studio Project and Project Report for the MA degree.
Open only to Studio Art students. Required of all candidates for the MA in Art, specialization in Studio Art.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.

699. Graduate Studies: MFA Project (2)
Prerequisite: MFA Art Student, Advancement to Candidacy and an approved Project Statement.
Execution and completion of a Studio Project and Project Report for the M.F.A. degree. Student must enroll in three sections concurrently. To be taken with each of three M.F.A. committee members for a total of 6 units in the final semester of study. No more than 6 units may be applied to the M.F.A. degree.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.

Art History Courses (AH)

LOWER DIVISION

111A. Foundation Art History I (3)
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
Chronological survey of art as an integral part of Western Culture from pre-History through the Middle Ages.
Not open for credit to students with credit in AH 115B.
111B. Foundation Art History II (3)
Prerequisite: Completion/current enrollment in GE A1 (Written Communication) requirement
Chronological survey of art as an integral part of Western Culture from Proto-Renaissance to contemporary.
Not open for credit to students with credit in AH 115C.

112. Foundation Art History: Latin American Arts and Architecture (3)
Prerequisite: Completion/current enrollment in GE A1 (Written Communication) requirement
Survey of arts and architecture of Mexico, Central America, and South America from 1200 BC to the late 20th century.
Letter grade only (A-F).

113A. Survey Asian Art: Early Sacred Cultures (3)
Prerequisite/Corequisite: Completion/current enrollment in GE A1 (Written Communication) requirement.
Survey of art as an integral part of Asian culture: India and SE Asia, China, and Japan from earliest times to c. 1000.
Not open for credit to students with credit in ART 113A.

113B. Survey Asian Art: Later Traditions (3)
Prerequisite/Corequisite: One GE Foundation course.
Survey of art as an integral part of Asian culture: India and SE Asia, China, and Japan from earliest times from c. 1000 to 1900.
Not open for credit to students with credit in ART 113B.

114. Foundation Art History: Arts of Africa, Oceania, and Indigenous North America (3)
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
Survey of architecture, urban planning, art, and other aspects of visual culture in Africa, Oceania, and indigenous North America.
Letter grade only (A-F).

116. Foundation Art History: Arts of Islamic Regions (3)
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.
Survey of architecture and visual culture in Islamic cultures from the 7th century to the present in North Africa, Spain, Southeast Asia, and the Islamic diaspora.
Letter grade only (A-F).

UPPER DIVISION

364. History of Ceramics 1900 to Present (3)
Survey of ceramic art in the United States from 1900 to the present. Consideration of American ceramic art within the context of contemporary art history, and of significant ceramic works in relation to modern and postmodern movements in art.
Letter grade only (A-F).

365. History of Prints and Drawings (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Historical survey of prints and drawings, with emphasis on technical and stylistic developments and on the role played by these media in relation to other arts through the 20th century.
Not open for credit to students with credit in ART 365. Letter grade only (A-F).

400/500. 19th Century Photography (3)
Prerequisite: AH 111B or consent of instructor.
Examination of 19th century photography.
Letter grade only (A-F).

401/501. American Art to 1900 (3)
Prerequisites: AH 111A, AH 111B or consent of instructor.
Survey of American art from the time of European settlement to roughly 1900 with special focus on cultural, political, and historical contexts. Combines slide lecture with discussion of primary and secondary readings.
Letter grade only (A-F).

408/508. Early Christian and Byzantine Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Architecture, mosaics and sculpture of Rome, Ravenna and Constantinople from the decline of the Roman Empire to the end of the Byzantine era.
Not open for credit to students with credit in ART 408 or 598B.
Letter grade only (A-F).

409/509. Romanesque Art (3)
Prerequisites: AH 111A, or consent of instructor.
Arts of Northern Europe from Merovingian through the Romanesque periods.
Not open for credit to students with credit in ART 409 or ART 598C.
Letter grade only (A-F).

410/510. Gothic Art (3)
Architecture, sculpture, and painting in western Europe from the 12th through the 14th centuries, with special attention to the construction and decoration of the great cathedrals, and to the development of new approaches to style and content in the figural art of the 14th-century Italy.
Not open for credit to students with credit in ART 410 or ART 598D.
Letter grade only (A-F).

411/511. 20th Century Photography to the Present (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
History of 20th and 21st c. photography. Emphasis on critical issues ranging from the fine art print to photo-based arts, from the "truth" of documentary to constructed realities. Study of the camera's impact on modern and postmodern visual culture.
Not open for credit to students with credit in ART 411 or ART 511.
Letter grade only (A-F).

415/515. Issues in Art History: Theory and Practice (3)
Prerequisites: AH 111A or AH 11B, Art Major or consent of instructor.
Theoretical and practical considerations in the discipline of art history, specifically issues relating to art interpretation, classification, valuation, and circulation.
Letter grade only (A-F).

416/516. Greek Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Survey of Greek Art from beginnings in Aegean period through late Hellenistic period. Key monuments of architecture, sculpture, painting, vase-painting, and so-called minor arts discussed relative to contemporary theories, criticism, and history. Focus on techniques and materials of various arts.
Not open for credit to students with credit in ART 416 or ART 598E.
Letter grade only (A-F).

417/517. Roman Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Survey of Italian arts before the Romans, including indigenous art of the Italic peoples and the Etruscans, and Roman Art from early Republic to Age of Constantine. Discussion of major art forms of architecture, painting, sculpture and so-called minor arts.
Not open for credit to students with credit in ART 417 or ART 598L.
Letter grade only (A-F).
423./523. Early Renaissance Art in Italy (3)
Examination of stylistic and technical developments of fifteenth-century Italian painting, sculpture, and architecture, as well as interaction of cultural, social, and religious developments with visual arts. Special attention to the revival of classicism, and influence of private patrons.
Not open for credit to students with credit in ART 423 or ART 598F. Letter grade only (A-F). Course fee may be required.
424./524. High Renaissance Art in Italy (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of sixteenth-century Italian painting, sculpture, and architecture, emphasizing that of Florence, Venice, and Rome. Historical, cultural, religious, and theoretical framework. Special attention to works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists).
Not open for credit to students with credit in ART 424 or ART 598G. Letter grade only (A-F).
425./525. Northern Renaissance Painting (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. Historical, cultural, and religious and theoretical framework. Special attention to iconography, and the changing role of the artist in society.
Not open for credit to students with credit in ART 425 or ART 598H. Letter grade only (A-F).
426./526. Baroque Art in Spain, the Netherlands, and England (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of intertwined political and artistic situations in Netherlands (Flanders and Holland), England and Spain during seventeenth and early eighteenth centuries. Emphasis on relationship between Rubens and Velasquez, contrast between Rubens and Rembrandt, and Flemish influence in England.
Not open for credit to students with credit in ART 426 or ART 598J. Letter grade only (A-F).
427./527. Baroque Art in Italy, France, and Germany (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Explores birth of Baroque in Rome, and role of Counter-Reformation in shaping artistic genres in Italy and France in early 17th century. Covers influence of Versailles court of “Sun King,” Louis XIV, in late 17th and early 18th centuries, especially in independent Teutonic states.
Not open for credit to students with credit in ART 427 or ART 598K. Letter grade only (A-F).
430./530. Introduction to Curatorial Practices (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Study of contemporary art display theory/practice including exhibition typologies, curatorial models, and recent transformations in museums, galleries and the art market. Designed for Museum and Curatorial Studies Certificate students and others interested in studying museum practices within a broader context. Not open for credit to students with credit in AH 435B/535B.
Letter grade only (A-F).
431./531. History of Museums and Exhibitions (3)
Prerequisites: AH 111A, AH 111B or consent of advisor and instructor.
Study of history of art museums and how displays reflect social and cultural conditions and political ideologies. Attention to controversial exhibitions, and recent transformations in the field. Class is required of students seeking Museum Studies Certificate and those pursuing MA with emphasis in Museum Studies. Not open for credit to students with credit in ART 435; AH 435, AH 435A, or AH 535A. Letter grade only (A-F).
432. Museum and Gallery Practices (3)
Prerequisites: GE foundation completed. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone; AH 111B or consent of instructor.
Pre-professional training in exhibition and display practices: administration, curating, exhibition planning and design, budgeting, public relations, project completion, documentation, and publication. The University Art Museum serves as lab for practical experience, with a strong focus on writing.
Letter Grade Only (A-F)
433. Exhibition and Display Practices (3)
Prerequisites: GE foundation completed, AH 111B or consent of instructor. GE Advanced Skills Capstone.
Pre-professional training in exhibition and display practices: curating, administration, exhibition planning and design, budgeting, public relations, project completion, documentation, and publication. The University Art Museum serves as lab for special activities, with a strong focus on planning, design, and production.
Letter grade only (A-F).
436./536. Neo-Classicism to Romanticism, 1789-1850 (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of Neo-Classicism, Realism, Romanticism, photography and the academic tradition in art and culture of Europe from 1789-1850.
Not open for credit to students with credit in ART 436 or ART 598M. Letter grade only (A-F).
437./537. Impressionism to Post-Impressionism, 1850-1900 (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Analysis of the development of Impressionism and Post-Impressionism in France from 1850 to 1900.
Not open for credit to students with credit in ART 437 or ART 598N. Letter grade only (A-F).
438./538. Art of Early to Mid Twentieth Century (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of key developments, trends, movements of the period including Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism.
Letter grade only (A-F). Not open for credit to students with credit in ART 438 or ART 598P.
439./539. Art of Mid to Late Twentieth Century (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Examination of key developments, trends, movements of the period including Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art.
Letter grade only (A-F). Not open for credit to students with credit in ART 439 or ART 598Q.
441./541. Contemporary Art in Context (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
International survey focusing on developments in art from late twentieth century to present. Examination of precedents, traditions, legacies behind current art. Consideration of critical/theoretical issues and factors influencing production and reception of current art.
Letter grade only (A-F).

444./544. History of Graphic Design (3)
Prerequisites: AH 111A and 111B, or consent of instructor.
The thematic approach to Graphic Design history, with consideration of pioneering designers, movements, and cultural, social, political and technological influences in the evolution of graphic design.
Not open for credit to students with credit in AH 366. Letter grade only (A-F).

446. Art History Methodologies and Writing (3)
Prerequisites: Undergraduate Art History major with junior standing. GE Foundation completed. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Practice in writing and conducting research in art history.
Introduction to disciplinary debates and methodologies, including formalism, semiotics, gender studies, psychoanalysis, Marxism, post-colonialism, and visual culture studies. This course qualifies as a Writing Intensive, Advanced Skills, and Integrative Learning Capstone.
Letter grade only (A-F).

447./547. Historiography of Art History (3)
Prerequisites: Undergraduate Art History major with senior standing or consent of instructor.
Study of the history of art history as intellectual discipline.
Reading- and writing-intensive seminar designed specifically for undergraduate art history majors in final year of study and for graduate students in M.A. in Art History program.
Letter grade only (A-F). Not open for credit to students with credit in ART 307 or AH 307.

448./548. Western Art Theory and Criticism to the Mid-Nineteenth Century (3)
Prerequisites: Undergraduate School of Art major and AH 111A and AH 111B, or consent of instructor.
A text-based examination of western art theory and criticism up to the mid-nineteenth century.
Letter grade only (A-F). Not open for credit to students with credit in AH 308.

449./549. Western Art Theory and Criticism Mid-Nineteenth to Mid-Twentieth Century (3)
Prerequisites: Undergraduate School of Art major and AH 111A and AH 111B, or consent of instructor.
A text-based examination of western art theory and criticism from the mid-nineteenth to mid-twentieth centuries. Not open for credit to students with credit in AH 309.
Letter grade only (A-F).

450./550. Western Art Theory and Criticism Mid-Twentieth Century to Present (3)
Prerequisites: Undergraduate School of Art major and AH 111A and AH 111B, or consent of instructor.
A text-based examination of western art theory and criticism from the mid-twentieth century to the present.
Letter grade only (A-F). Not open for credit to students with credit in AH 310.

453. Arts of the African Diaspora (3)
Prerequisites: GE Foundation completed. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. AH111A, AH111B, or instructor consent.
Examination of the global influence of African diasporic arts and their cross-fertilization with Indigenous and Euro-American cultures/traditions. This course qualifies as a GE Writing Intensive capstone.
Letter grade only (A-F).

454. Contemporary Indigenous Arts in the United States and American Territories (3)
Prerequisites: GE Foundation completed. AH 111A and AH 111B, or instructor consent.
Analysis of Indigenous arts in the United States and American territories, emphasizing Native American and Pacific Islander cultures, from 1950 to the present. This course satisfies the GE Human Diversity requirement.
Letter grade only (A-F). Same class as AIS 454. Not open for credit to students with credit in AIS 454.

455./555. Traditional Art of Africa: A Thematic Approach (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Exploration from a Western perspective of the conceptual, expressive, and aesthetic aspects of traditional African art as related to its cultural context and to Western concepts of art. Focus on West Africa.
Not open for credit to students with credit in ART 455 or ART 598R.
Letter grade only (A-F).

456./556. Native American Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Introduction to the arts of Native American cultures in the U.S. and Canada from pre-contact to contemporary practices. Traditional arts, new media, and new markets will be studied within their social and historical contexts.
Not open for credit to students with credit in ART 456 or ART 598S.
Letter grade only (A-F).

457A./557A. Pre-Columbian Art: Mesoamerica (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Art, architecture, and urban planning in Mesoamerica from 1200 BCE to the Spanish conquest of 1519-1521, with emphasis on religious, political, and economic functions, as well as interpretive assumptions and methods of scholars in the field.
Letter grade only (A-F).

457B./557B. Pre-Columbian Art: The Andes (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Art, architecture, and urban planning in the Andean region from 1200 BCE to the Spanish conquest of 1532, with emphasis on religious, political, and economic functions, as well as interpretive assumptions and research methods of scholars in the field.
Letter grade only (A-F).

457C./557C. Pre-Columbian Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
A survey of art and architecture in Mesoamerica and the Andean region of South America from about 1000 BC to the Spanish conquest. Special attention will be focused on the social, political and economic contexts of objects and architecture from this period, as well as on the research methods and theoretical assumptions of scholars investigating this field.
Letter grade only (A-F). Not open for credit to students with credit in AH 457.
458./558. Art of Latin America: 1800-1940 (3)
Prerequisite: AH 111A, AH 111B, or consent of instructor.
Investigation of developments in visual culture in Latin America from the late-18th century to the mid-20th century, with special emphasis on artists in Argentina, Brazil, Colombia, Mexico, Uruguay, and Venezuela.
Letter grade only (A-F).

459./559. Art of Latin America: 1940-Present (3)
Prerequisite: AH 111A, AH 111B, or consent of instructor.
Investigation of developments in visual culture in Latin America from the mid-20th century to the present, with special emphasis on artists in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, and Venezuela, as well as Latino/Latina artists.
Letter grade only (A-F).

460./560. Art of Mexico: 1780 to Present (3)
Prerequisite: AH 111A, AH 111B, or consent of instructor.
Fine art, graphic art, photography, popular art, and architecture produced by artists of/in Mexico from 1780 to the present, with emphasis on historical contexts, the varied functions objects were made to serve, and debates concerning production, circulation, and/or reception.
Letter grade only (A-F).

465./565. Ancient Art of the Near East (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Near Eastern, Egyptian and Aegean art.
Not open for credit to students with credit in ART 465 or ART 598U. Letter grade only (A-F).

466./566. Buddhist Art of India and S.E. Asia (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Formation and development of Buddhist art in India and subsequent metamorphoses in Cambodia, Thailand and Indonesia examined.
Not open for credit to students with credit in ART 466 or ART 598V. Letter grade only (A-F).

467./567. Hindu and Islamic Art of India (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Formation and development of Hindu art in India and the genesis, as well as transformation, of Islamic art of India compared to pan-Islamic characteristics will be examined.
Not open for credit to students with credit in ART 467 or ART 598W. Letter grade only (A-F).

468./568. Early Chinese Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Formation and development of Chinese art from third millennium to 10th century A.D.
Not open for credit to students with credit in ART 468 or ART 598X. Letter grade only (A-F).

469./569. Later Chinese Art (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Development of Chinese art from the 11th century A.D. through the culmination of the tradition and its transformation in the 20th century will be explored.
Not open for credit to students with credit in ART 469 or ART 598Y. Letter grade only (A-F).

470A./570A. Japanese Buddhist Art to 1500 (3)
Prerequisite: One of the following: AH 113A, AH 113B, AH 111A, AH 111B, A/ST 393, A/ST 451, consent of instructor.
Survey of sacred architecture, sculpture, painting, gardens and decorative art from neolithic culture through Zen Buddhism, reading images in regard to religious, political and social values.
Not open for credit to students with credit in AH 470. Letter grade only (A-F).

470B./570B. Japanese Art 1500-1868 (3)
Prerequisites: AH 113A, AH 113B, AH 111A, AH 111B, A/ST 393, A/ST 451, or consent of instructor.
Analysis of secular painting, architecture, ceramics and garden design in the Momoyama and Edo periods, linking the wide variety of subjects and styles to the competing values of samurai, priest, aristocrat or merchant class patrons.
Not open for credit to students with credit in AH 470. Letter grade only (A-F).

471A./571A. Modern Japanese Graphic Art (3)
Prerequisite: One of the following: AH 113A, AH 113B, AH 111A, AH 111B, A/ST 393, A/ST 451, or consent of instructor.
Examination of painting, prints, photography and graphic design in regard to the issues of individual and national identity in an era when being modern was often linked to being Western. We also consider manga in regard to earlier modern adaptations of traditional design.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

471B./571B. Modern Japanese Plastic Art (3)
Prerequisite: One of the following: AH 113A, AH 113B, AH 111A, AH 111B, A/ST 393, A/ST 451, or consent of instructor.
Investigation of architecture, gardens, sculpture and ceramics in light of debates over internationalism or nationalism, modernity or tradition. The political and economic implications of design choices will be highlighted.
Not open for credit to students with credit in AH 471. Letter grade only (A-F).

471C./571C. Modern Japanese Architecture (3)
Prerequisites: AH 113A or AH 113B or AH 111A; AH 111B.
Analysis of "Japaneseness" and "foreign-ness" in Japan between 1868 and 1970. Examination of Japanese creations of and reactions to "modernity" in regard to national identity as expressed in architecture and gardens. Related consideration of urbanism and nationalism.
Letter grade only (A-F).

495. Independent Study In Art History (1-6)
Independent research conducted under supervision of faculty member. Student and instructor must have on file in School of Art office signed written agreement, established at beginning of course, outlining description of work, specific tasks required, nature of final report, and basis for determining final grade.
Letter grade only (A-F).

496. Special Studies in Art History (3)
Prerequisite: AH 447 or consent of instructor.
Opportunity for extensive work with faculty supervision on individual problems in art history.
Topics announced in the Schedule of Classes. May be repeated to a maximum of 9 units. Not open for credit to students with credit in ART 496. Letter grade only (A-F).

497./597. Seminar in Art History (3)
Prerequisite: Consent of instructor.
Directed individual research and group discussion concerning a topic in art history.
Topics announced in the Schedule of Classes. May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. Not open for credit to students with credit in ART 497 or 611 beyond combined maximum units. Letter grade only (A-F).
498. Selected Topics in Art History (3)  
Prerequisite: Consent of instructor.  
Topics from selected areas of Art History. Content may vary each semester.  
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and a total of 12 units in different semesters. Topics announced in the Schedule of Classes.

499Q. Special Studies in Museum Studies (3)  
Prerequisites: AH 431 or consent of instructor.  
Opportunity for extensive individual work with faculty supervision on problems in museum studies, including utilizing the resources of The Center for Southern California Studies in the Visual Arts.  
Letter grade only (A-F). May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Not open for credit to students with credit in ART 499Q.

GRADUATE LEVEL

500./400. 19th Century Photography (3)  
Prerequisites: AH or ART graduate student, or consent of instructor.  
Examination of 19th century photography.  
Letter grade only (A-F).

501./401. American Art to 1900 (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Survey of American art from the time of European settlement to roughly 1900 with special focus on cultural, political, and historical contexts. Combines slide lecture with discussion of primary and secondary readings.  
Letter grade only (A-F).

508./408. Early Christian and Byzantine Art (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Architecture, mosaics and sculpture of Rome, Ravenna and Constantinople from the decline of the Roman Empire to the end of the Byzantine era.  
Not open for credit to students with credit in ART 408 or ART 598B.  
Letter grade only (A-F).

509./409. Romanesque Art (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Arts of Northern Europe from Merovingian through the Romanesque periods.  
Not open for credit to students with credit in ART 409 or ART 598C.  
Letter grade only (A-F).

510./410. Gothic Art (3)  
Prerequisite(s): Graduate standing in Art or Art History, or consent of instructor.  
Architecture, sculpture, and painting in western Europe from the 12th through the 14th centuries, with special attention to the construction and decoration of the great cathedrals, and to the development of new approaches to style and content in the figural art of the 14th-century Italy.  
Not open for credit to students with credit in ART 410 or ART 598D.  
Letter grade only (A-F).

511./411. 20th Century Photography to the Present (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
History of 20th and 21st c. photography. Emphasis on critical issues ranging from the fine art print to photo-based arts, from the "truth" of documentary to constructed realities. Study of the camera's impact on modern and postmodern visual culture.  
Not open for credit to students with credit in ART 411 or ART 511.  
Letter grade only (A-F).

515./415. Issues in Art History: Theory and Practice (3)  
Prerequisites: Graduate standing in Art History, Art Studio, or Art Education or consent of instructor.  
Theoretical and practical considerations in the discipline of art history, specifically issues relating to art interpretation, classification, valuation, and circulation.  
Letter grade only (A-F).

516./416. Greek Art (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Survey of Greek Art from beginnings in Aegean period through late Hellenistic period. Key monuments of architecture, sculpture, painting, vase-painting, and so-called minor arts discussed relative to contemporary theories, criticism, and history. Focus on techniques and materials of various arts.  
Not open for credit to students with credit in ART 416 or ART 598E.  
Letter grade only (A-F).

517./417. Roman Art (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Survey of Roman art from the days of the Republic to Age of Constantine. Discussion of major art forms of architecture, painting, sculpture and so-called minor arts.  
Not open for credit to students with credit in ART 417 or ART 598L.  
Letter grade only (A-F).

523./423. Early Renaissance Art in Italy (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Examination of stylistic and technical developments of fifteenth-century Italian painting, sculpture, and architecture, as well as interaction of cultural, social, and religious developments with visual arts. Special attention to the revival of classicism, and influence of private patrons.  
Not open for credit to students with credit in ART 423 or ART 598F.  
Letter grade only (A-F). Course fee may be required.

524./424. High Renaissance Art in Italy (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Examination of sixteenth-century Italian painting, sculpture, and architecture, emphasizing that of Florence, Venice, and Rome. Historical, cultural, religious, and theoretical framework. Special attention to works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists).  
Not open for credit to students with credit in ART 424 or ART 598G.  
Letter grade only (A-F).

525./425. Northern Renaissance Painting (3)  
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.  
Examination of artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. Historical, cultural, and religious and theoretical framework. Special attention to iconography, and the changing role of the artist in society.  
Not open for credit to students with credit in ART 425 or ART 598H.  
Letter grade only (A-F).
526./426. Baroque Art in Spain, the Netherlands, and England (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examines the closely intertwined political and artistic situations in the Netherlands (Flanders and Holland), England and Spain during the 17th and early 18th centuries. Emphasis on the relationship between Rubens and Velasquez, and the contrast between Rubens and Rembrandt; also Flemish influence in England, due especially to Anthony van Dyck.
Not open for credit to students with credit in ART 426 or ART 598J.
Letter grade only (A-F).

527./427. Baroque Art in Italy, France, and Germany (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Explores the birth of the Baroque in Rome, and the role of the Counter-Reformation in shaping artistic genres in Italy and France in the early 17th century. Also covers the influence of the Versailles court of the "Sun King," Louis XIV, in the late 17th and early 18th centuries, especially in the independent Teutonic states.
Not open for credit to students with credit in ART 427 or ART 598K.
Letter grade only (A-F).

530./430. Introduction to Curatorial Practices (3)
Prerequisites: AH 111A, AH 111B, or consent of instructor.
Study of contemporary art display theory/practice including exhibition typologies, curatorial models, and recent transformations in museums, galleries and the art market. Designed for Museum and Curatorial Studies Certificate students and others interested in studying museum practices within a broader context.
Letter grade only (A-F). Not open for credit to students with credit in AH 435B./535B.

531./431. History of Museums and Exhibitions (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Study of history of art museums and how displays reflect social and cultural conditions and political ideologies. Attention to controversial exhibitions, and recent transformations in the field.
Letter grade only (A-F). Not open for credit to students with credit in ART 435 or ART 598K.
Letter grade only (A-F).

536./436. Neo-Classicism to Romanticism, 1789-1850 (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examination of Neo-Classicism, Realism, Romanticism, photography and the academic tradition in art and culture of Europe from 1789-1850.
Not open for credit to students with credit in ART 436 or ART 598N.
Letter grade only (A-F).

537./437. Impressionism to Post-Impressionism, 1850-1900 (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Analysis of the development of Impressionism and Post-Impressionism in France from 1850 to 1900.
Not open for credit to students with credit in ART 437 or ART 598N.
Letter grade only (A-F).

538./438. Art of Early to Mid Twentieth Century (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examination of key developments, trends, movements of the period including Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism.
Letter grade only (A-F). Not open for credit to students with credit in ART 438 or ART 598P.

539./439. Art of Mid to Late Twentieth Century (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examination of key developments, trends, movements of the period including Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art.
Letter grade only (A-F). Not open for credit to students with credit in ART 439 or ART 598Q.

541./441. Contemporary Art in Context (3)
Prerequisites: Graduate standing in Art History or consent of instructor.
International survey focusing on developments in art from late twentieth century to present. Examination of precedents, traditions, legacies behind current art. Consideration of critical/theoretical issues and factors influencing production and reception of current art.
Letter grade only (A-F)

542. Internship in Museum Studies (3)
Prerequisites: AH 430/530 or consent of instructor.
Supervised internship in selected museums, college and community art centers appropriate to student's particular academic interest. Opportunity to work with museum professionals in the field to expand student understanding of the complexities, discipline and challenges in the profession.
Letter grade only (A-F). May be repeated to a maximum of 3 units in the same semester and 9 units in different semesters. (6 hrs. lab.) Not open for credit to students with credit in ART 542.

544./444. History of Graphic Design (3)
Prerequisites: Graduate standing in School of Art, or consent of instructor.
Thematic approach to Graphic Design history, with consideration of pioneering designers, movements, and cultural, social, political and technological influences in the evolution of graphic design.
Not open for credit to students with credit in AH 366. Letter grade only (A-F).

545A. Museum-Gallery Practices (3)
Prerequisites: Graduate Standing or consent of instructor.
Pre-professional training in museum-gallery practices: administration, curating, exhibition planning and design, budgeting, public relations, project completion, documentation, publication. The University Art Museum serves as lab for practical experience, with a strong focus on writing.
Letter grade only (A-F).

545B. Museum-Gallery Practices (3)
Prerequisites: AH 545A or consent of instructor.
Pre-professional training in museum-gallery practices: administration, curating, exhibition planning and design, budgeting, public relations, project completion, documentation, publication. The University Art Museum serves as lab for practical experience, with a strong focus on writing.
Letter grade only (A-F).

545C. Museum-Gallery Practices (3)
Prerequisites: AH 545B or consent of instructor. Third in a four-course sequence.
Pre-professional training in museum-gallery practices: administration, curating, exhibition planning and design, budgeting, public relations, project completion, documentation, publication. University Art Museum and other venues serve as labs for practical experience in developing and realizing exhibitions.
Letter grade only (A-F).
545D. Museum-Gallery Practices (3)
Prerequisites: AH 545C or consent of instructor. Fourth in a four-course sequence.
Pre-professional training in museum-gallery practices: administration, curating, exhibition planning and design, budgeting, public relations, project completion, documentation, publication. University Art Museum and other venues serve as labs for practical experience in developing and realizing exhibitions.
Letter grade only (A-F).

546. Art History Methodologies and Writing (3)
Prerequisites: Graduate standing in Art History or consent of instructor.
Advanced practice in writing and conducting research in art history. Focus on current disciplinary debates and methodologies, including formalism, semiotics, gender studies, psychoanalysis, Marxism, post-colonialism, and visual culture studies. Students work on developing a graduate thesis topic.
Letter grade only (A-F).

547./447. Historiography of Art History (3)
Prerequisites: Graduate student in Art History or consent of instructor.
Study of the history of art history as intellectual discipline. Reading- and writing-intensive seminar designed specifically for undergraduate art history majors in final year of study and for graduate students in M.A. in Art History program.
Letter grade only (A-F). Not open for credit to students with credit in ART 307 or AH 307.

548./448. Western Art Theory and Criticism to the Mid-Nineteenth Century (3)
Prerequisites: Graduate student in Art History or consent of instructor.
A text-based examination of western art theory and criticism up to the mid-nineteenth century.
Letter grade only (A-F). Not open for credit to students with credit in AH 308.

549./449. Western Art Theory and Criticism Mid-Nineteenth to Mid-Twentieth Century (3)
Prerequisites: Graduate student in Art History or consent of instructor. A text-based examination of western art theory and criticism from the mid-nineteenth to mid-twentieth centuries.
Letter grade only (A-F). Not open for credit to students with credit in AH 309.

550./450. Western Art Theory and Criticism Mid-Twentieth Century to Present (3)
Prerequisites: Graduate Student in Art or Art History or consent of instructor. A text-based examination of western art theory and criticism from the mid-twentieth century to the present.
Letter grade only (A-F).

555./455. Traditional Art of Africa: A Thematic Approach (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Exploration from a Western perspective of the conceptual, expressive, and aesthetic aspects of traditional African art as related to its cultural context and to Western concepts of art. Focus on West Africa.
Not open for credit to students with credit in ART 455 or 598R.
Letter grade only (A-F).

556./456. Native American Art (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Introduction to the arts of Native American cultures in the U.S. and Canada from pre-contact to contemporary practices. Traditional arts, new media, and new markets will be studied within their social and historical contexts.
Not open for credit to students with credit in ART 456 or 598S.
Letter grade only (A-F).

557A./457A. Pre-Columbian Art: Mesoamerica (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Art, architecture, and urban planning in Mesoamerica from 1200 BCE to the Spanish conquest of 1519-1521, with emphasis on religious, political, and economic functions, as well as interpretive assumptions and methods of scholars in the field.
Letter grade only (A-F).

557B./457B. Pre-Columbian Art: The Andes (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Art, architecture, and urban planning in the Andean region from 1200 BCE to the Spanish conquest of 1532, with emphasis on religious, political, and economic functions, as well as interpretive assumptions and research methods of scholars in the field.
Letter grade only (A-F).

557C./457C. Pre-Columbian Art (3)
Prerequisite: Graduate standing in Art or Art History, or consent of instructor.
Survey of art and architecture in Mesoamerica and Andean region of South America from 1000BC to Spanish conquest. Special attention to social, political and economic contexts, as well as research methods and theoretical assumptions of scholars investigating this field.
Letter grade only (A-F). Not open for credit to students with credit in AH 557.

558./458. Art of Latin America: 1800-1940 (3)
Prerequisite: Graduate standing in Art or Art History, or consent of instructor.
An investigation of developments in visual culture in Latin America from the late-18th century to the mid-20th century, with special emphasis on artists in Argentina, Brazil, Colombia, Mexico, Uruguay, and Venezuela.
Letter grade only (A-F).

559./459. Art of Latin America: 1940-Present (3)
Prerequisite: Graduate standing in Art or Art History, or consent of instructor.
An investigation of developments in visual culture in Latin America from the mid-20th century to the present, with special emphasis on artists in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, and Venezuela, as well as Latino/Latina artists.
Letter grade only (A-F).

560./460. Art of Mexico: 1780 to Present (3)
Prerequisites: Graduate Standing in Art or Art History, or consent of instructor.
Fine art, graphic art, photography, popular art, and architecture produced by artists of/in Mexico from 1780 to the present, with emphasis on historical contexts, the varied functions objects were made to serve, and debates concerning production, circulation, and/or reception.
Letter grade only (A-F).
565./465. Ancient Art of the Near East (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Prehistoric, Near Eastern, Egyptian and Aegean art.
Not open for credit to students with credit in ART 465 or 598U.
Letter grade only (A-F).

566./466. Buddhist Art of India and S.E. Asia (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examination of formation and development of Buddhist art in India and its subsequent metamorphoses in Cambodia, Thailand and Indonesia.
Not open for credit to students with credit in ART 466 or ART 598V.
Letter grade only (A-F).

567./467. Hindu and Islamic Art of India (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Examination of formation and development of Hindu art in India and the genesis; transformation, of Islamic art of India compared to pan-Islamic characteristics.
Not open for credit to students with credit in ART 467 or ART 598W.
Letter grade only (A-F).

568./468. Early Chinese Art (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
The formation and development of Chinese art from the third millennium to the 10th century A.D.
Not open for credit to students with credit in ART 468 or ART 598X.
Letter grade only (A-F).

569./469. Later Chinese Art (3)
Prerequisites: Graduate standing in Art or Art History, or consent of instructor.
Development of Chinese art from the 11th century A.D. through the culmination of the tradition and its transformation in the 20th century will be explored.
Not open for credit to students with credit in ART 469 or ART 598Y.
Letter grade only (A-F).

570A./470A. Japanese Buddhist Art to 1500 (3)
Prerequisite: One of the following: AH 113A, AH 113B, AH 111A, AH 111B, A/ST 393, A/ST 451, or consent of instructor.
Survey of sacred architecture, sculpture, painting, gardens and decorative art from neolithic culture through Zen Buddhism, reading images in regard to religious, political and social values.
Not open for credit to students with credit in AH 470.
Letter grade only (A-F).

570B./470B. Japanese Art 1500-1868 (3)
Prerequisite: Graduate student in Art or Art History or consent of instructor.
Analysis of secular painting, architecture, ceramics and garden design in the Momoyama and Edo periods, linking the wide variety of subjects and styles to the competing values of samurai, priest, aristocrat or merchant class patrons.
Not open for credit to students with credit in AH 470.
Letter grade only (A-F).

571A./471A. Modern Japanese Graphic Art (3)
Prerequisite: Graduate student in Art or Art History or consent of instructor.
Examination of painting, prints, photography and graphic design in regard to the issues of individual and national identity in an era when being modern was often linked to being Western. We also consider manga in regard to earlier modern adaptations of traditional design.
Not open for credit to students with credit in AH 471.
Letter grade only (A-F).

571B./471B. Modern Japanese Plastic Art (3)
Prerequisite: Graduate student in Art or Art History or consent of instructor.
Investigation of architecture, gardens, sculpture and ceramics in light of debates over internationalism or nationalism, modernity or tradition. The political and economic implications of design choices will be highlighted.
Not open for credit to students with credit in AH 471.
Letter grade only (A-F).

571C./471C. Modern Japanese Architecture (3)
Prerequisites: Graduate standing in Art History.
Analysis of "Japaneseness" and "foreign-ness" in Japan between 1868 and 1970. Examination of Japanese creations of and reactions to "modernity" in regard to national identity as expressed in architecture and gardens. Related consideration of urbanism and nationalism.
Letter grade only (A-F).

595. Independent Study in Art History (1-6)
Independent, in-depth research projects to be conducted by students under the supervision of a faculty member.
As per university policy on independent studies courses, students enrolled in this course must have an agreement, or contract on file in the school office. Agreement is made between student and instructor at the beginning of course, and must include: a description of work to be accomplished, specific information on tasks required; nature of final report, and basis for determining final grade. Agreement must be signed by both instructor and student.
Letter grade only (A-F). May be repeated to maximum of 12 units in the same semester.

596. Special Studies in Art History (3)
Graduate level variable directed study projects providing a way for students to independently pursue special research topics in art history under instructor supervision.
Letter grade only (A-F). Topics announced in the Schedule of Classes. May be repeated to a maximum of 12 units in the same semester.

597./497. Seminar in Art History (3)
Prerequisite: Consent of instructor.
Directed individual research and group discussion concerning a topic in art history.
Letter grade only (A-F). Topics announced in the Schedule of Classes. May be repeated to a maximum of 6 units in the same semester and 9 units in different semesters. Not open for credit to students with credit in ART 497 or ART 611 beyond combined maximum units.

598. Selected Topics in Art History (3)
Prerequisite: Consent of instructor.
Topics from selected areas of Art History. Content may vary each semester.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester and a total of 12 units in different semesters. Topics announced in the Schedule of Classes.

599Q. Special Studies in Museum Studies (3)
Prerequisite: Consent of instructor.
Advanced individual graduate projects, with faculty supervision, in museum studies.
Letter grade only (A-F). May be repeated to a maximum of 6 units in same semester and a total of 12 units in different semesters. (6 hrs. lab.)
693. Teaching Internship (3)
Opportunity to work with a full time faculty mentor on course preparation and instruction. Required for eligibility for Graduate Teaching Associate positions.
Restricted to graduate art history majors.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

694. Graduate Studies: Directed Research (3)
Prerequisites: Art History MA Student and Consent of Thesis Committee Chair.
Preliminary research and writing relating to Masters Thesis topic. Three units required for MA in Art History degree. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

698. Thesis (1)
Prerequisite: Art History MA student, advancement to Candidacy and an approved Thesis Statement.
Execution and completion of an approved thesis. Student must enroll in three sections concurrently. To be taken with each of student’s three MA Thesis Committee members over two semesters for a total of 6 units.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.
ARTS, COLLEGE OF THE

Dean: Cyrus Parker-Jeannette
Associate Dean: Margaret Black
Executive Assistant to the Dean: Emily Colville
Director, University Art Museum: TBA
Executive Director, Carpenter Performing Arts Center: Michele Roberge
College Office: Academic Services 115
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Departments/Schools

School of Art:
Dr. Karen Kleinfelder, Director (562) 985-7908
Department of Dance:
Andy Vaca, Chair (562) 985-4747
Department of Design:
Martin Herman, Chair (562) 985-5046
Department of Film and Electronic Arts:
Jerry Mosher, Chair (562) 985-2247
The Bob Cole Conservatory of Music:
Carolyn Bremer, Director (562) 985-4781
Department of Theatre Arts:
TBA

Introduction

The mission of the College of the Arts is to provide a dynamic, contemporary learning environment that honors tradition, embraces diversity, inspires innovation, and strives for excellence. Our faculty of artists, educators, and scholars is committed to challenging students intellectually, creatively, and professionally, while encouraging them to find their individual artistic voices. The College produces and brings the highest level of art, teaching, and scholarship to our community in the form of concerts, exhibitions and installations, films, performances, publications, and emerging media.

Programs at a Glance

Bachelor of Arts:
Art
- Options in: Studio Art, Art History, Art Education
Dance
- Dance
- Option in Dance Science
Design
Film and Electronic Arts
- Options in: Theory and Practice of Cinema, Narrative Production
Music
Theatre Arts
- Options in: Performance, Technical Theatre

Bachelor of Fine Arts:
Art
- Options in: Art Photography, Ceramics, Drawing and Painting, Graphic Design, Illustration/Animation, 3-D Media (Fiber, Metal or Wood), Printmaking, Sculpture
Dance
- Interior Design

Bachelor of Music:
- Options in: Choral-Vocal Music, Composition, History and Literature, Instrumental Music, Performance

Bachelor of Science:
- Industrial Design

Certificates:
- Biomedical Illustration (undergraduate) (Art)
- Museum Studies (graduate) (Art)

Minors:
- Dance
- Film and Electronic Arts
- Music
- Theatre Arts

Single Subject Teaching Credentials:
- Art
- Music

Master of Arts:
- Art
- Dance
- Music

Master of Fine Arts:
- Art
- Dance
- Theatre Arts
- Options in: Theatre Management, Technical Theatre, Acting

MBA/MFA in Theatre Management

Accreditation

The following disciplines are accredited by the noted specialized accrediting agency:

School of Art
- The National Association of Schools of Art and Design
Department of Dance
- The National Association of Schools of Dance
Department of Design
- The National Association of Schools of Art and Design
The Bob Cole Conservatory of Music
- The National Association of Schools of Music
Department of Theatre
- The National Association of Schools of Theatre

Exhibitions and Performances

Major performance and exhibition facilities include the University Art Museum, five School of Art Galleries, the University Theatre, performances by the California Repertory Company (the Theatre Arts Department’s graduate and professional theatre program), the Studio Theatre, the Royal Theatre at the Queen Mary, the Gerald R. Daniel Recital Hall, the Martha B. Knoebel Dance Theater, and the Richard and Karen Carpenter Performing Arts Center. In these and other venues, the College of the Arts hosts over 500 exhibitions, performances, and other special events each year.
College of the Arts Courses (COTA)

UPPER DIVISION

300. Writing in the Arts (3)
Prerequisites: Must have attempted and failed the WPE once, major in a COTA department, junior standing, and consent of instructor.
Multi-disciplinary elective that may be used to fulfill the GWAR. Analysis and practice of writing for and about the arts, including the visual arts, dance, design, film, music and theatre. Exploration of critical thought in the arts while practicing writing skills. Credit/No Credit grading only. May be used to satisfy the GWAR.

400. Introduction to Interdisciplinary Arts: Theory and Practicum (3)
Prerequisites: Junior, Senior or Graduate Standing. Students must receive a recommendation from department faculty.
An introduction to interdisciplinary arts practices and historical contexts through exploration, collaboration, artistic process, social practice, and/or community engagement. Visual art, dance, design, film, fine art, literature, music, performance, and theater are included.
Letter Grade only (A-F)(6 hours activity).
ASIAN AND ASIAN AMERICAN STUDIES
College of Liberal Arts

Department Chair: Teri Yamada
Vice Chair: Barbara W. Kim
Department Office: Faculty Offices FO3-340
Telephone: (562) 985-4645
FAX: (562) 985-1535
Center: Center for Asian Pacific American Studies
Website: http://www.cla.csulb.edu/departments/aaas/

Faculty: Ruixi Ai, Kiyomi Chinen, Masako O. Douglas, Linda N. España-Maram, Hiroko Kataoka, Hsin-sheng C. Kao (Emerita), Barbara W. Kim, Yoko Pusavant (Emerita), San-Pao Li (Emeritus), Dean S. Toji, John N. Tsuchida (Emeritus), Haiping Wu, Tianwei (Tim) Xie (Emeritus), Teri Yamada

Advisors:
Graduate: Teri Yamada and Barbara Kim
Undergraduate: Barbara Kim
Undergraduate: Dean Toji (Asian American Studies)
Undergraduate: Teri Yamada (Asian Studies)
Undergraduate: Ruixi Ai (Chinese Studies)
Undergraduate: Hiroko Kataoka (Japanese)

Associate Faculty: Kendall Brown (Art History), Chi-Ah Chun (Psychology), Frank Gossette (Geography), Lisa Grobar (Economics), Jack W. Hou (Economics), Margaret Kuo (History), Guotong Li (History), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), Karen Quintilliani (Anthropology), George Scott (Anthropology), Michiko Takeuchi (History), Teresa Wright (Political Science), Oliver Wang (Sociology), R. Scott Wilson (Anthropology)

Administrative Support Coordinator: Ann Chau

Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
Social Scientist • Archivist • Social Worker • Journalist • Counselor • Teacher • Public Relations Consultant • Mass Media • Foreign Business and Trade • Community Organizer • School Administrator • Linguist • Parole Officer • Probation Officer • Editor • Writer • Urban/Regional Planner • Public Policy Administrator • Foreign Policy Officer • NSA, FBI Interpreter • Researcher (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Asian and Asian American Studies fosters multi-ethnic and cross-cultural understanding from a global, multi-disciplinary perspective and pursues an active language education program to promote cross-cultural awareness and intercultural understanding.

Through courses of its own and those of cooperating departments, the Department of Asian and Asian American Studies offers a B.A. in Asian American Studies, a B.A. and M.A. in Asian Studies, a B.A. in Chinese Studies, a Single Subject Teaching Credential in Japanese, a B.A. in Japanese, a Minor in Asian American Studies, a minor in Chinese Language and Culture, a minor in Japanese Language and Culture, and a Certificate in Asian Studies. Information and advice relative to the programs are available through the department office, FO3-340.

Undergraduate Programs

Bachelor of Arts in Asian Studies (120 units)

The Bachelor of Arts in Asian Studies is an interdisciplinary degree program that combines the study of Asian culture and identity with a choice of three concentrations: Asia and Business; Asia and Globalization; Chinese or Japanese Studies. Students are encouraged to study abroad in Asia as a means to partially fulfill their language requirement. Information about these study-abroad programs can be obtained at the AAAS office (FO3-340) or the Center for International Education (BH 201).

Asian Studies students are interested in a wide range of professions in both the Liberal Arts and Sciences that require a cultural knowledge of Asia, trade in the region, and globalization. The core program provides students with the tools to understand the complex cultures of Asia, and the guidance to focus their interest and accomplish their goals. It prepares CSULB graduates for good jobs in international trade and business, non-profit work, international affairs, diplomacy, policy and public relations, and education. Students should select their concentration, foreign language study, and senior research project with their career objectives in mind.

Asian Studies uses an outcomes-based approach to education and incorporates the use of technology in the classroom. The pedagogical focus is on collaborative, project-based learning and communication associated with a twenty-first century skill set. Since both statistics and economics are important for this major, students are advised to take either ECON 101 or STAT 108 as part of their under-division GE requirements.

Requirements
A minimum of 39 units distributed as follows:

Major Requirements
Foreign Language (12 units)
Take at least three semesters (or the equivalent) of a single Asian language. Language choices are Chinese, Japanese, or an Asian language approved by the AAAS undergraduate advisor (typically Korean, Vietnamese, Filipino, or Cambodian). Students are encouraged to take their language courses early in their academic career and plan to study one or more semesters abroad in Asia to meet this requirement. Those with an Asian language competency may test out of this requirement. Visit the Department for further information.

Lower-Division:
Core courses - 6 units
Take the following course:
AAAS 100 Asian Eats (3)
Prerequisites: None
Take one of the following (3 units):
ASAM 120 Asian American History (3)
Prerequisite/Co-requisite: One GE Foundation course.

AST 200 Popular Culture in East Asia (3)
Prerequisite: ENGL 100 or its equivalent.

Upper-Division (Minimum of 21 units: 9 units of core courses and 12 units of upper division electives):
Core courses - 9 units
Take one of the following (3 units):
AST 306 Traditional Asia (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.

Take one of the following (3 units):
AST 309 Asia and Globalization (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.

Take the following course:
AAAS 492 Senior Research Seminar (3)
Prerequisites: Upper-division standing in Asian Studies, Japanese, Chinese Studies, Asian American Studies or consent of the instructor.

Concentrations
Take a minimum of 12 units of upper-division electives from one of the following three concentrations:

Asia and Business concentration (any four courses below):
Economics and Finance:
A/ST 490, A/ST 499; ECON 300; ECON 310, ECON 311, ECON 341, ECON 366, ECON 372, ECON 465, ECON 470, ECON 471; FIN 300, FIN 360, FIN 460

Management and Information Systems:
A/ST 490, A/ST 499; CBA 300; HRM 360; MGMT 300; IS 300, IS 310, IS 310; I/ST 319, I/ST 350, I/ST 419

Design and Marketing:
A/ST 490, A/ST 499; DESN 368, DESN 370; GEOG 319; MKTG 300; BLAW 320

Asia and Globalization concentration (any four courses below):
ANTH 307; ASAM 335, ASAM 407; A/ST 320, A/ST 336; A/ST 490, A/ST 499; HIST 412, HIST 440; I/ST 320, I/ST 355, I/ST 463; JOUR 312, POSC 371, POSC 463; SOC 317, SOC 318, SOC 350, SOC 375, SOC 430

China or Japan concentration (any four courses below):
China: ANTH 332; ASAM 331; A/ST 490, A/ST 495, A/ST 499; CHIN 370, CHIN 380, CHIN 390, CHIN 421, CHIN 451, CHIN 462; GEOG 315; HIST 382A, HIST 382B, HIST 388, HIST 406, HIST 412; POSC 362; R/ST 341
Japan: ASAM 330; A/ST 49; A/ST 499; JAPN 311, JAPN 312, JAPN 350; CWL 403; GEOG 315; HIST 383A, HIST 383B, HIST 384, HIST 406, HIST 407; R/ST 341, R/ST 344

Certificate in Asian Studies
Certificate in Asian Studies (23 units)
A student may earn a Certificate in Asian Studies with a focus on Asian language and global issues. Where applicable, courses used to meet the certificate requirements also may be used to satisfy the General Education requirements, and the major or minor degree requirements of the other departments whose courses are listed as electives for this Certificate.

Requirements
1. A bachelor’s degree, with a major in a discipline other than Asian Studies. May be completed concurrently;
2. A minimum of two semesters or its equivalent of one of the following Asian languages at CSU Long Beach: Chinese, Khmer, Japanese, Korean, Filipino, or Vietnamese. Lower division units (8) for this Certificate must be fulfilled by language courses in one Asian language. Students may fulfill lower division language units in their selected Asian language through community college transfer, AP credit, or study abroad language courses;
3. Upper division electives (15 units): Select five courses from the following options.

Bachelor of Arts in Asian American Studies (120 units)
This program provides an interdisciplinary approach to explore the diverse histories, cultures, communities, and contemporary realities in Asian America. Admission to the program requires completion of the GE Foundation courses.

Requirements
A major in Asian American Studies requires a minimum of 36 units.
Lower-Division Core Courses (9 units):
Take all of the following:
AAAS 100 Asian Eats (3)
Prerequisites: None
ASAM 120 Asian American History (3)
Prerequisite/Corequisite: One GE Foundation course.
Take one of the following courses:
ASAM 121 Contemporary Issues in Asian America (3)
Prerequisite/Corequisite: One GE Foundation course.
ASAM 200 Asian American Interethnic Relations (3)
Upper-Division Core Courses (12 units):
Take all of the following courses:
A/ST 307 Modern Asia (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
A/ST 309 Asia and Globalization (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
ASAM 335 Asian and Latino Immigration Since World War II (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
AAAS 492 Senior Research Seminar (3)
Prerequisites: Upper-division standing in A/ST, ASAM, CHIN, or JAPN, or consent of the instructor.

Upper-Division Electives (15 units)
Selected from at least two (2) of the following areas, with no more than six (6) units from Group 4, Asia and Globalization:
Group 1. Specific Ethnic Group Focus:
ASAM 330, ASAM 331, ASAM 332, ASAM 333, ASAM 334, ASAM 352, ASAM 353, ASAM 354
Group 2. Gender Studies:
ASAM 340, ASAM 345, ASAM 370, ASAM 381
Group 3. Asian Americans in Comparative Perspectives:
ASAM 305, ASAM 319, ASAM 341, ASAM 346, ASAM 350, ASAM 407, ASAM 490, ASAM 499
Group 4. Asia and Globalization:

Minor in Asian American Studies

Requirements
The Minor in Asian American Studies is available to all majors except those in ASAM. A minimum of 18 units which must include:
1. Take the following course:
   ASAM 120 Asian American History (3)
   Prerequisite/Corequisite: One GE Foundation course
   Take one of the following courses:
   ASAM 121 Contemporary Issues in Asian America (3)
   Prerequisites: One GE Foundation course.
   ASAM 200 Asian American Interethnic Relations (3)
   Prerequisite: Completion of at least one GE Foundation course.
2. 12 units selected from among the following:

Minor in Chinese Language and Culture

Program Description
A minimum of 18 units in Chinese Studies: 12 lower-division Chinese language units and 6 upper division elective units. The Minor in Chinese Language and Culture is available to any non-Chinese Studies major. A “C” grade in all required and elective classes in the Minor is required for continuation in the program.

Requirements
Take all the following courses:
CHIN 101: Fundamentals of Chinese (4)
Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for CHIN 101.
CHIN 102: Fundamentals of Chinese (4)
Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
CHIN 201: Intermediate Chinese (4)
Prerequisites: GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Take any two of the following upper-divison courses:
CHIN 380: Languages and Dialects in China (3)
Prerequisites: CHIN 102 or equivalent.
CHIN 421: Current Affairs in China (3)
Prerequisite: Consent of instructor.
CHIN 451: Chinese Culture and Tradition (3)
Prerequisite: Consent of instructor.
CHIN 462: Contrastive Analysis of Chinese and English (3)
Prerequisite: Consent of instructor.

Minor in Japanese Language and Culture

Program Description
This Minor requires a minimum of 18-26 units of required and elective courses focusing on the study of Japanese culture, communication, and language. These courses should be selected in consultation with the Japanese program adviser. Students may use AP credit or test out of JAPN 101 and 102 (8 units). This Minor is available to any student not majoring in Japanese. A “C” grade in all required and elective classes in the Minor is required for continuation in the program.

Requirements
Take all the following courses:
JAPN 101: Fundamentals of Japanese (4)
Prerequisite: One GE Foundation (may be taken concurrently) or formal prerequisites and/or competency equivalent for JAPN 101.
JAPN 102: Fundamentals of Japanese (4)
Prerequisites: JAPN 101; one GE Foundation course (may be taken concurrently) or formal prerequisites and/or competency equivalent for advanced study in Japanese.
JAPN 201: Intermediate Japanese (4)
Prerequisites: JAPN 102; GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
JAPN 202: Intermediate Japanese (4)
Prerequisites: JAPN 201; GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
JAPN 301: Advanced Japanese (3)
Prerequisites: JAPN 202 or equivalent as determined by instructor.
JAPN 497: Directed Studies (1)
Prerequisite: Consent of instructor.

Choose any two from the following courses:
JAPN 302: Advanced Japanese (3)
Prerequisites: JAPN 301 or equivalent as determined by instructor.
JAPN 311: Advanced Spoken Japanese (3)
Prerequisites: JAPN 202 or equivalent as determined by instructor.
JAPN 312: Advanced Spoken Japanese (3)
Prerequisites: JAPN 311 or equivalent as determined by instructor.
JAPN 350: Japanese Language, Culture, and Communication (3)
A/ST 393: Japan: Continuities and Transformations (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper division standing.

*If the student is placed in a level above JAPN 201 in the placement test, s/he can take any other 300 or 400 level Japanese courses to replace the skipped course(s).

Graduate Programs

Master of Arts in Asian Studies
The Master of Arts (MA) in Asian Studies provides a comparative understanding of the cultural, economic, and socio-political significance of Asia in the 21st century. It requires competency in one or more Asian languages. To achieve this, MA students are encouraged to study abroad for part of their course work. Graduates from the MA program in Asian Studies can expect to be much more competitive for positions in the Foreign Service, State Department, K-12 and community college education and administration, international finance and industry, non-governmental organizations, academic publishing, professional translation work, and Ph.D. programs in Chinese, Japanese, or Asian Studies.

Admission Requirements
1. A Bachelor’s degree in a major in Asian Studies, or a field with an emphasis on Asia, including Cultural Geography, International Business, and International Studies and Linguistics.
2. A 3.0 (“B”) GPA in Asia and Asian language related courses taken as an undergraduate. (A student whose GPA is less than 3.0 may appeal to the Department’s Graduate Committee for a possible waiver of this requirement.)
3. English language competency:
   - International students must take either the TOEFL or the IELTS exam. For admission to graduate study, a minimum score of 80 on the iBT TOEFL is required. TOEFL official score results must be submitted from the Educational Testing Service (ETS). The CSULB institution code for TOEFL reporting is 4389. If you choose to take the IELTS, a minimum score of 6.0 in each sub-section is required. Upon admission, your English competency will be assessed by the AAAS Department and an additional two English language courses may be required (English 301A, 301B).
4. Asian language requirement:
   - For the MA in Asian Studies and the Chinese Studies option, non-native speakers should be competent in an Asian language to the Intermediate-low level according to the 2012 ACTFL Proficiency Guidelines.* Non-native speakers who have lived abroad may be tested for this competency and should contact the Department for further information.
5. Two letters of recommendation (preferably from academic sources).
6. A short statement of the candidate’s objectives in pursuing the A/ST MA degree.

Requirements for the MA:
1. By the completion of his or her A/ST MA program, the language competency of a non-native speaker is expected to be at least equivalent to the Intermediate-High level according to the ACTFL Proficiency Guidelines.
2. A minimum of 30 units of 400-level upper-division and graduate courses, of which 70% must be at the 500-600 level in a program approved by the Graduate Advisor and 50% must be in courses organized primarily for graduate students.
3. A graduate student must obtain a B or better grade in core courses to continue in the program.

MA in Asian Studies (30-42 units)
The MA in Asian Studies provides a comparative understanding of the cultural, economic, and socio-political significance of Asia in the 21st century. It requires competency in one or more Asian languages. It culminates with an MA comprehensive exam and a project in A/ST 697 that demonstrates the knowledge and skills which students have both brought to and acquired through the core curriculum.

The Asian Studies four core courses are required for all students.

MA in Asian Studies course requirements: 12 units of A/ST core courses and 18 units of electives, selected with consultation of the graduate advisor:

Required Core Courses (12 units):
A/ST 600. Asian Studies and Languages: Research and Methodologies (3)
Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 620. Comparative Traditional Cultures of Asia (3)
Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 630. Asia and Globalization (3)
Prerequisite: A/ST 600 or consent of instructor.
A/ST 697. Research Capstone and Practicum (3)
Prerequisites: A/ST 600; A/ST 620 or A/ST 630.

Electives (18 units):
From six-twelve units of electives from 400-level or graduate language courses in Chinese or Japanese.
Students are required to bring their Asian language competency in Japanese or Chinese to the Intermediate-High level or above according to the ACTFL Proficiency Guidelines. They are also encouraged to study two Asian languages. Asian languages, other than Chinese and Japanese, may meet this requirement in consultation with the graduate advisor.

Chinese
CHIN 410./510. Chinese Information Processing (3)
Prerequisite: Consent of instructor.
CHIN 421. Current Affairs in China (3)
Prerequisite: Consent of instructor.
CHIN 451./551. Chinese Culture and Tradition (3)
Prerequisite: Consent of instructor.
CHIN 462/562. Contrastive Analysis of Chinese and English (3)
Prerequisite: Consent of instructor.
CHIN 485./585. Masterpieces from China
Prerequisites: Consent of instructor.
CHIN 490./590. Selected Topics in Chinese Studies (3)
Prerequisite: Consent of instructor.
CHIN 561. Structure of Modern Chinese Language (3)
Prerequisite: Consent of instructor.

Japanese
(All Japanese courses, including content courses, are taught in Japanese.)
JAPN 421/521. Selected Readings/Writing in Japanese (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 422/522. Technical Japanese (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 451/551. Japanese Civilization (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 452. Japan: Its Land, People and Culture (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 453 Japanese Culture as Social Process (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as determined by instructor.
JAPN 461/561. The Structure of the Japanese Language (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 462/562. Contrastive Analysis of English and Japanese (3)
Prerequisites JAPN 302 and 312 or equivalent as determined by instructor.
JAPN 471. Readings in Modern and Contemporary Japanese Literature (3)
Prerequisite: JAPN 302 and JAPN 312, or equivalent as determined by instructor.
JAPN 482/582. Pedagogical Grammar (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.
JAPN 490. Selected Topics in Japanese (3-6)
Prerequisite: Consent of instructor.
JAPN 695. Directed Reading (1-6)
Prerequisites: Consent of graduate advisor
JAPN 697. Directed Research (1-6)

Prerequisites: Consent of graduate advisor

Remaining elective units may be fulfilled from the following courses:
ANTH 413. Language and Culture (3)
Prerequisites: ANTH 170 or LING 170 or consent of instructor.
ANTH 421. Education Across Cultures (3)
Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.
ANTH 441./541. Ethnographic Film Production I (4)
Prerequisite: ANTH 120 or consent of instructor.
ANTH 442.542. Ethnographic Film Production II (4)
Prerequisite: ANTH 120 and ANTH 441/541 or consent of instructor.
ANTH 501. Current Trends in Anthropological Theory (3)
Prerequisites: ANTH 401 or equivalent, and graduate standing.
ANTH 560. Ethnographic Research Methods (3)
Prerequisite: Graduate standing or consent of instructor.
A/ST 610. Seminar in Asian Studies (3)
Prerequisite: Graduate Standing in Asian Studies.
A/ST 695. Directed Readings (1-6)
Prerequisite: Graduate standing in Asian Studies and consent of graduate advisor.
GEOG 596. Geographic Thought and Literature (3)
Prerequisite: Consent of instructor.
GEOG 650. Seminar in Cultural Geography (3)
Prerequisite: Consent of instructor.
GEOG 666. Seminar in Urban Geography (3)
Prerequisite: Consent of instructor.
GEOG 696. Seminar in Geographical Research Methods (3)
Prerequisites: GEOG 596, graduate standing in geography, and consent of instructor.
HIST 440/550. The Silk Roads (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
HIST 442/552. The Indian Ocean in World History (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
HIST 501. Theories and Methodologies of History (3)
Prerequisite: Graduate standing in History.
HIST 512. Migration and Ethnicity in Modern China (3)
Prerequisite: Graduate standing.
HIST 518. Central Asia and Afghanistan, Twentieth Century (3)
Prerequisite: Upper Division Standing.
HIST 590. Selected Topics in Comparative History (3)
Prerequisite: Graduate standing in History.
HIST 682. Seminars in Asian History (3)
Prerequisites: Six units of upper division Asian history or consent of instructor.
LING 413. Language and Culture (3)
Prerequisites: LING/ANTH 170 or consent of instructor.
LING 425. Education Across Cultures (3)
Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.
LING 533. Ethnography of Communication (3)
   Prerequisite: Graduate standing.
LING 561. Second Language Curriculum Development (3)
   Prerequisite: LING 325 or consent of instructor.
SOC 430. Sociology of Globalization (3)
   Prerequisites: SOC 100 and upper division standing.
SOC 536. Sociology of Race, Racism, and Racial Relations (3)
   Prerequisite: SOC 656 and SOC 696 or consent of instructor.
SOC 540. Urban Sociology (3)
   Prerequisites: SOC 356, SOC 357 or consent of instructor.
*Courses in other disciplines, such as the MBA program, may be substituted as electives in consultation with the graduate advisor.

Option in Chinese Studies (30 units)
This option includes a choice between two tracks:
1) Chinese Language and Culture
2) Teaching Chinese as a Foreign Language

Track 1: “Chinese Language and Culture” is tailored for non-native speakers of Chinese who would like to explore more about Chinese language and culture, without the intention to become a Chinese language instructor.

Track 2: “Teaching Chinese as a Foreign Language” targets native speakers or near-native speakers of Chinese who would like to become a Chinese language instructor either in the United States or in China.

Requirements
Required Core Courses (12 units):
A/ST 600. Asian Studies and Languages: Research and Methodologies (3)
   Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 620. Comparative Traditional Cultures of Asia (3)
   Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 630. Asia and Globalization (3)
   Prerequisite: A/ST 600 or consent of instructor.
A/ST 697. Research Capstone and Practicum (3)
   Prerequisites: A/ST 600; A/ST 620 or A/ST 630.

18 units from the following electives, selected with consultation of the graduate advisor:
CHIN 410/510. Chinese Information Processing (3)
   Prerequisite: Consent of instructor.
CHIN 430A/530A. Classical Chinese Fiction (3)
   Prerequisite: Upper division standing or consent of instructor.
CHIN 430B/530B. Classical Chinese Drama (3)
   Prerequisite: Upper division standing or consent of instructor.
CHIN 451/551. Chinese Culture and Tradition (3)
   Prerequisite: Consent of instructor.
CHIN 561. Structure of Modern Chinese Language (3)
   Prerequisite: Consent of instructor.
CHIN 582. Contrastive Analysis of Chinese and English (3)
   Prerequisite: Consent of instructor.
CHIN 581. Principles and Practice of Teaching Chinese (3)
   Prerequisite: Consent of instructor.
CHIN 485/585. Masterpieces from China (3)
   Prerequisite: Consent of instructor.
CHIN 490/590. Selected Topics in Chinese Studies (3)
   Prerequisite: Consent of instructor.
CHIN 599. Directed Studies in Chinese (1-6)
   Prerequisites: Consent of instructor.
LING 561. Second Language Curriculum Development (3)
   Prerequisite: LING 325 or consent of instructor.
LING 562. Second Language Testing and Assessment (3)
   Prerequisite: LING 325 or consent of instructor.

Suggested electives for the Chinese Language and Culture track: CHIN 530A; CHIN 530B; CHIN 530C; CHIN 551, CHIN 561 (required for this track); CHIN 585; CHIN 599.

Suggested electives for the Teaching Chinese as a Foreign Language track: CHIN 510; CHIN 551; CHIN 561 (required for this track); CHIN 562; CHIN 581 (required for this track); CHIN 599; LING 561; LING 562.

Option in Japanese Language and Pedagogy (JLP) (33 units)

Program Description
The JLP option provides students with a vigorous training in pedagogy to teach Japanese as a foreign and heritage language while they further develop Japanese language ability. The JLP option has two goals. Upon successful completion of the option, students should be able to (1) apply their pedagogical knowledge and skills, which they have acquired in the course work, to their teaching, and (2) develop Advanced-level proficiency of Japanese language based on ACTFL’s Proficiency Guidelines. All courses are taught in Japanese.

Requirements
Required Core Courses (12 units):
A/ST 600. Asian Studies and Languages: Research and Methodologies (3)
   Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 620. Comparative Traditional Cultures of Asia (3)
   Prerequisite: Graduate standing in Asian Studies or consent of instructor.
A/ST 630. Asia and Globalization (3)
   Prerequisite: A/ST 600 or consent of instructor.
A/ST 697. Research Capstone and Practicum (3)
   Prerequisites: A/ST 600; A/ST 620 or A/ST 630.

21 units from the following courses and electives, selected
with consultation of the graduate advisor:

Five Required Japanese Courses (15 units; JAPN 681 is repeated for six of the 15 units)

JAPN 463/563. Acquisition of Japanese as a Second/Foreign Language: Theory and Practice (3)
Prerequisites: LING 101 or LING 170 or JAPN 461, together with JAPN 302 and JAPN 312, or Placement Test for JAPN 302 and 312.

JAPN 461/561. The Structure of the Japanese Language (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

OR
JAPN 482/582. Pedagogical Grammar (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 481/581. Principles and Practice of Teaching Japanese (3)
Prerequisites: JAPN 302 and 312, and at least one-400-level course as determined by the instructor.

OR
JAPN 483/583. Curriculum and Materials Development (3)
Prerequisites: JAPN 302 and 312, or equivalent as determined by instructor.

JAPN 681. Practicum (3-6)
Prerequisites: two of the above courses (JAPN 463/563, JAPN 481/581, JAPN 483/583) or consent of instructor.

Two electives (6 units)

JAPN 421/521. Selected Readings/Writing in Japanese (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 422/522. Technical Japanese (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 451/551. Japanese Civilization
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 452. Japan: its land, people, and culture (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 453. Japanese Culture as Social Process (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as determined by instructor.

JAPN 461/561. The Structure of the Japanese Language (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 462/562. Contrastive Analysis of English and Japanese (3)
Prerequisites: JAPN 302 and 312 or equivalent as determined by instructor.

JAPN 471. Readings in Modern and Contemporary Japanese Literature (3)
Prerequisite: JAPN 302 and JAPN 312, or equivalent as determined by instructor.

JAPN 481/581. Principles and Practice of Teaching Japanese (3)

Prerequisites: JAPN 302 and 312, and at least one 400-level course as determined by the instructor.

JAPN 482/582. Pedagogical Grammar (3)
Prerequisites: JAPN 302 and 312, or consent of instructor.

JAPN 483/583. Curriculum and Materials Development (3).
Prerequisites: JAPN 302 and 312, or equivalent as determined by instructor.

Advancement to Candidacy

Students should see the Graduate Advisor to file Advancement to Candidacy after at least 6 units but no more than 15 units of graduate coursework are completed. We encourage students to complete their MA within two-three years. Students must have taken A/ST 600 as well as have fulfilled the Graduation Writing Assessment Requirement (GWAR). For the GWAR requirement see http://www.csulb.edu/divisions/aa/gwar/.

Advancement must take place at least two semesters prior to taking the Comprehensive Exams. The Comprehensive Examination Approval Form must be filed with the department at the time of Advancement to Candidacy is a formal contract listing courses the student has taken, is taking, and will take. Changes to contract may be made in consultation with the Graduate Advisor.

The comprehensive examination is two questions selected from a set of five questions established by the candidate’s comprehensive examination committee of three faculty members. The candidate has six hours to complete the comprehensive exam.

Asian and Asian American Studies Courses (AAAS)

LOWER DIVISION

100. Asian Eats (3)
A survey of Asian foodways that explores the political, economic, religious, social and cultural context of food in Asia and its globalization. This exploration also focuses on specific foods, such as rice and spices, in the context of ethnic and national identities.

UPPER DIVISION

492. Senior Research Seminar (3)
Prerequisites: Upper-division standing in Asian Studies, Japanese, Chinese Studies, Asian American Studies, or consent of the instructor.
Letter grade only (A-F).

Asian Studies Courses (A/ST)

LOWER DIVISION

190. Introduction to Eastern Ways of Thinking (3)
Prerequisites/Corequisite: ENGL 100 or GE Composition (Area A).
Explores how reasoning in Buddhism, Confucianism, and Daoism compares with traditional Western concepts of logic.
200. Popular Culture in East Asia (3)
Prerequisite: ENGL 100 or its equivalent.
Introduction to popular culture in East Asia (such as television dramas, music, films, and comics) and how it is shaped by, reflects, and in turn shapes broader social, cultural, political, and economic processes in Asia and the wider world.
Letter grade only (A-F).

290. Selected Topics in Asian Studies (3)
Prerequisite: Consent of instructor.
Topics of special interest in Asian Studies selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

299. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

306. Traditional Asia (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
An interdisciplinary examination of the traditional civilizations of Asia focusing on the transfer of culture and technology along the Spice Route, Silk and Tea Roads linking the region to the wider world prior to 1500 CE.
Not open to students with credit in Asian Studies 300I.

307. Modern Asia (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
An interdisciplinary examination of cultural change and globalization of Asia through the exchange of ideas, commodities, and technology since 1500 CE.
Not open to students with credit in Asian Studies 301I.

309. Asia and Globalization (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
A comparative analysis of the political and economic systems of Asia, with a focus on East Asian sphere of influence and its contribution to globalization.
Letter grade only (A-F).

310. United States and Asia (3)
Prerequisite: GE Foundation requirements.
Examines themes including key religious, social and political movements, patterns of migrations, transnational cultural productions, and Asian-U.S. global economic relations since 1945.

315. Modern Korea (3)
Prerequisite: GE Foundation requirements and one or more Exploration courses.
An interdisciplinary examination of major historical, political, social, and cultural themes and changes in the Korean peninsula since the early 20th century.
Both grading options. (3 hours lecture/discussion)

320. East Asian Fiction and Film (3)
Prerequisite: Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Introduces the historical background and cultural context of fiction and film in East Asia and how they reflect changes in individual and national identities since the twentieth century.
Letter grade only (A-F).

336. Southeast Asian Literature and Political Culture (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
The course introduces the historical background and political context of Southeast Asian modern literature during the twentieth century.

393. Japan: Continuities and Transformations (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper division status.
Introduction to the cultural legacies of Japan's historical development, including the emergence of social classes and contacts with other cultures, as evidenced in religion, visual and performing arts. Lecture 3 hours, or blended learning.
Letter grade only (A-F).

490. Selected Topics in Asian Studies (1-5)
Topics of special interest in Asian Studies selected for intensive study.
May be repeated to a maximum of 10 units with different topics in different semesters. Topics announced in the Schedule of Classes.

495. China Heritage (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses; upper-division standing.
Cultural heritage explored through history, philosophy, religion and science, side by side with the fine arts; seen as the totality of a people's humanistic experience. (Lecture, discussion and film) (Lecture, discussion, film.)

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

GRADUATE LEVEL

Graduate course descriptions are found in the departmental listings in which they are offered. Graduate courses applicable for the degree (only when the focus is on Asia) are: AH 566, AH 567, AH 568, AH 569, AH 570, AH 571, AH *596, AH *597; A/S T 610, A/S T 695, A/S T 697, A/S T 698; ANTH 516, ANTH 517, ANTH 519, ANTH 597, ANTH 697; ART 611; ASAM 595; CHIN 530A,B,C, CHIN 551, CHIN 590, CWL 503, CWL 522, CWL 548, CWL 550; ECON 690; GEOG 650, GEOG 697; HIST 505, HIST 509, HIST 510(G), HIST 682, HIST 695, HIST 697; JAPN 551, JAPN 562, JAPN 581, JAPN 592, JAPN 695, JAPN 697; PHIL 697; POSC 590, POSC 599, POSC 600, POSC 610, POSC 670, POSC 697; R/ST 646, R/ST *690, R/ST *697.

600. Asian Studies and Languages: Research and Methodologies (3)
Prerequisite: Graduate standing in Asian Studies or consent of instructor.
This course introduces the current trends in research for Asian Studies and languages. It also examines the basic qualitative and quantitative research methods for the disciplines associated with these fields. It requires the development of a concept for the culminating project in A/S T 697.
Letter grade only (A-F).
610. Seminar in Asian Studies (3)
Prerequisite: Graduate standing in Asian Studies.
Selected topics in Asian Studies. Area and discipline of emphasis will vary from year to year. Open to graduate students of Asian Studies. Graduate students in other disciplines may enroll with consent of instructor.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

620. Comparative Traditional Cultures of Asia (3)
Prerequisite: Graduate standing in Asian Studies or consent of instructor
A comparative analysis of traditional Asian cultures—religion and values, social class and caste, family structure and gender roles, political organization and economics—and how these have either changed or still influence opportunities in contemporary Asia.
Letter grade only (A-F).

630. Asia and Globalization (3)
Prerequisites: A/ST 600 or consent of instructor
This course focuses on an analysis of the economic and cultural impact of the inter-regional trade zone (ASEAN) being established in Asia as well as the cultural, social, and economic consequences and trends of globalization on various Asian countries.
Letter grade only (A-F).

692. Directed Research for Comprehensive Examination (3)
Prereq: Graduate Standing and Consent of Instructor
Directed Research under the supervision of a faculty member in preparation of an MA student's Comprehensive Examination.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

695. Directed Readings (1-6)
Prerequisites: Graduate standing in Asian Studies and consent of graduate advisor.
Prerequisites: A/ST 610, or consent of graduate advisor and faculty member supervising the readings.
Direct research to permit individual students to pursue topics of special interest in Asian Studies.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

697. Research Capstone and Practicum (3)
Prerequisites: A/ST 600; A/ST 620 or A/ST 630.
This course prepares the MA student for the presentation of his or her culminating project at the end of this course and for academic conferences. It also informs students about the publication process for scholarly journals and insures that their culminating project is academically rigorous. It guides the student in job searches and prepares the student for interviews across professional fields.
Letter grade only (A-F).

698. Thesis (3)
Prerequisite: Advancement to candidacy, consent of graduate advisor and faculty member supervising the thesis.
Planning, preparation, and completion of a thesis in Asian Studies.
May be repeated for a maximum of 6 units with same topic in different semesters.

Asian American Studies Courses (ASAM)

LOWER DIVISION

100. Composition II (3)
Prerequisites: Score of 147 or higher on the English Placement Test; “C” or better in ASAM 100S, AFRS 100S, CHLS 104S, ENGL 100S, ALI 150; or consent of instructor.
Composition II does not count toward meeting the major requirements. It does count toward graduation and will be included in the overall GPA.
Expository writing course designed for first-year students. Satisfies one of the writing requirements for general education at CSULB. Emphasizes academic writing, focusing primarily on analytical reading and thesis-driven writing.
Same course as ENGL 100, AFRS 100, CHLS 104. Not open for credit to students with credit in: ENGL 100, AFRS 100, CHLS 104.

100S. Composition I (3)
Prerequisites: Students who score 146 or below on the English Placement Test and who have not taken equivalent courses in another department are eligible for enrollment in this course.
Composition I does not count toward meeting the major requirements. It does count toward graduation and will be included in the overall GPA. Must have a “C” or better to earn credit in GE. Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading, as well as to developing stronger reading comprehension for specific writing tasks.
Same course as AFRS 100S, CHLS 104S, ENGL 100S. Not open for credit to students with credit in ASAM 1, AFRS 1, CHLS 1, ENGL 1, AFRS 100S, CHLS 104S, ENGL 100S, ESW 100S.

120. Asian American History (3)
Prerequisite/Corequisite: One GE Foundation course.
Overview of experiences of people of Asian ancestry in the United States. Major themes include: immigration (labor migration and refugee resettlement), racism and economic conflict, resistance to discrimination, and community building.
Not open for credit to students with credit in ASAM 220.

121. Contemporary Issues in Asian America (3)
Prerequisite/Corequisite: One GE Foundation requirement.
Examination of contemporary issues, including immigration, labor, family, public policy, popular culture, the media, and political activism in Asian America. Focuses on the U.S. in the context of the global economy and Asian diasporas.
Not open for credit to students with credit in ASAM 221.

200. Asian American Intercultural Studies (3)
Prerequisites: Completion of at least one GE Foundation course.
Introduction to a comparative survey of racial/ethnic experiences in the U.S., with a focus on Asian Americans.
Not open for credit to students with credit in AFRS 319, AIS 319, ASAM 319, B/ST 319, CHLS 319, C/LA 319, WGSS 319, W/ST 319. Letter grade only (A-F).
215. U.S. Diversity and the Ethnic Experience (3)
Prerequisites: Open only to Integrated Teacher Education Program students.
Survey of American Indian, African American, Latino American, and Asian Americans in American society from the colonial era to present. Special attention to the formation and transformation of each ethnic group and their roles in the development of the United States.
Letter grade only (A-F). Same course as AIS 215, AFRS 215, CHLS 215.
Not open for credit to student with credit in AIS 215, AFRS 215, ASAM 215, CHLS 215.

260. Introduction to Asian American Literature (3)
Prerequisites: Completion of at least one Foundation course.
Introduction to representative works by Asian Pacific American authors. Emphasizes interpretation of historical and contemporary Asian American experiences in various literary genres.
Letter grade only (A-F).

290. Selected Topics in Asian American Studies (3)
Prerequisite: Consent of instructor.
Topics of current interest in Asian American Studies selected for intensive development.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

299. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and or competency equivalent for advanced study.

305. Theories and Methods in Asian Studies and Asian American Studies (3)
Prerequisites: Upper-division standing or consent of instructor, GE Foundation requirements; ASAM 120 or ASAM 200.
Explores theories and interdisciplinary methodologies employed in Asian Studies and Asian American Studies. Students will have opportunities to conduct research on topics of their interest.
Letter grade only (A-F).

319. The Ethnic Experience in the U.S. (3)
Prerequisite: GE Foundation requirements.
Examines the dynamics of our multicultural society, emphasizing ways in which Asian American, Black American, Mexican American, and American Indian experiences have shaped cultural diversity in the U.S.
Same course as AIS 319, AFRS 319, and CHLS 319. Not open for credit to student with credit in AFRS 319, AIS 319, CHLS 319, or WGSS 319. (Lecture/Discussion.)

330. Japanese American Experience (3)
A study of the culture, history, and literature of Japanese in America, emphasizing immigrant experience, agricultural contributions, World War II, generational issues, women in transition and family.

331. Chinese American Experience (3)
A study of the culture, history, and literature of Chinese in America, emphasizing immigrant experience, generational issues, women in transition and family.

332. Korean American Experience (3)
Examines major historical, social, political, and cultural themes that have shaped Korean American experiences, with attention to intersections of race, ethnicity, gender, and class in the U.S. Emphasizes contemporary issues in local communities and transnational connections in the Korean diaspora.

333. Vietnamese American Experience (3)
A study of the culture, history, and literature of Vietnamese in America, emphasizing refugee and immigrant experience, generational issues, women in transition and family.

334. Cambodian American Experience (3)
A study of the culture, history, and literature of Cambodians in America, emphasizing refugee and immigrant experiences, generational issues, women in transition and family.

335. Asian and Latino Immigration Since World War II (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the causes of massive Asian and Latino immigration as well as major contemporary issues in the Asian and Latino communities.
Same course as CHLS 335. Not open for credit to student with credit in CHLS 335. (Lecture and discussion, 3 hours)

340. Asian American Family (3)
Prerequisites: GE Foundation requirements and upper-division standing.
Provides perspectives on the varieties of Asian American families by examining the social, economic, political, and cultural factors crucial in the development of conventional as well as alternative familial units.

341. Asian American/Chicano and Latino Cinema (3)
Prerequisites: GE Foundation requirements.
A team-taught course that explores connections between Asian American and Chicano/Latino cinema, with emphases given to grounding issues presented in films within historical, literary, and cultural studies frameworks.
Same course as CHLS 341. Not open for credit to students with credit in ASAM 403 or CHLS 403 or CHLS 341.

345. Asian American Community Analysis (4)
Examines socioeconomic, political and cultural profile of Asian American communities, as well as role and function of community organizations. Training in community surveys and service.
(Lecture, activity)

346. Asian Americans and the Law (3)
Examines how laws have been used to restrict Asian Americans’ social, political, educational, and economic activities, as well as how this ethnic group has utilized the legal system to fight discrimination and seek justice.

350. Environmental Justice (3)
Prerequisite: Completion of GE Foundation
Examines social justice aspects of environmental issues (e.g., exposure to environmental hazards and burdens), and the ability and opportunities to cope with and mitigate such problems, as influenced by race, ethnicity, gender, and class.
Letter grade only (A-F).

352. Filipino/a American Experiences (3)
Focusing on social, economic, political, and cultural dimensions of Filipino/a experiences in the United States, this course examines major issues, including legacies of imperialism, transnational patterns of capital and labor, colonial and post-colonial identities, resistance to oppression, and literary expressions.
353. Filipino American Contemporary Issues (3)  
Prerequisite: Upper-division standing. Recommended: ASAM 352  
Interdisciplinary approach used to examine the social, economic, political, and cultural dimensions of Filipino/a experiences in the United States from 1965 to the contemporary period. Emphases on issues of post-colonial identities, the Philippine Diaspora, patterns of labor, strategies of resistance, and cultural practices.

354. Transnational Filipino Communities (3)  
Prerequisite: Upper-division standing. Recommended: ASAM 352.  
Examines the social, economic, political, and cultural realities in the Philippines and their relationship with the formation of transnational Filipino/a communities.

370. Gender and Sexuality in Asian America (3)  
Prerequisites: GE Foundation requirements and upper-division standing.  
Explores the diverse historical and contemporary experiences of Asian Americans with respect to gender roles and relationships, family, expressions of desire, as well as the relationships among gender, sexuality, and racial/ethnic identity.

381. Asian American Women (3)  
Reconstructs and examines Asian American women’s history and contemporary experiences. Assesses the complexities of intersecting social categories of oppression and Asian American women’s active pursuit of equality and dignity. 
Not open for credit to student with credit in HIST 381, WGSS 381. (Lecture)

407. Asians in Latin America (3)  
Prerequisites: Upper-division standing or consent of instructor. Recommended: HIST 161.  
Examines the diverse histories and experiences of Asians in Latin America. Emphases placed on patterns of labor and settlement, socio-economic development of local and transnational communities, formation of ethnic identities, and expressive cultures.  
Letter grade only (A-F).

490. Selected Topics in Asian American Studies (3)  
Prerequisite: Consent of instructor.  
Topics of current interest in Asian American Studies selected for intensive development.  
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)  
Prerequisite: Consent of instructor.  
Directed studies to permit individual students to pursue topics of special research interest.  
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

595. Seminar in Asian American Studies (3)  
Selected topics in Asian American Studies. Area and topics of emphasis will vary from year to year.  
Letter grade only (A-F). May be repeated to a maximum of 6 units.

599. Directed Studies (1-3)  
Prerequisite: Consent of instructor  
Directed studies to permit individual students to pursue topics of special research interest.  
May be repeated to a maximum of 6 units in different semesters.  
Letter grade only (A-F).
Department Chair: Teri Yamada
Vice Chair: Barbara W. Kim
Department Office: Faculty Offices FO3-340
Telephone: (562) 985-4645
FAX: (562) 985-1535
Website: http://www.cla.csulb.edu/departments/aaas/
Faculty: Ruixi Ai, Kiyomi Chinen, Masako O. Douglas, Linda N. España-Maram, Hiroko Kataoka, Hsin-sheng C. Kao (Emerita), Barbara W. Kim, Yoko Pusavant (Emerita), San-Pao Li (Emeritus), Dean S. Toji, John N. Tsuchida (Emeritus), Haiping Wu, Tianwei (Tim) Xie (Emeritus), Teri Yamada
Advisors:
Graduate: Teri Yamada and Barbara Kim
Undergraduate: Barbara Kim
Undergraduate: Dean Toji (Asian American Studies)
Undergraduate: Ruixi Ai (Chinese Studies)
Undergraduate: Hiroko Kataoka (Japanese)
Associate Faculty: Kendall Brown (Art History), Chi-Ah Chun (Psychology), Frank Gossette (Geography), Lisa Grobar (Economics), Jack W. Hou (Economics), Margaret Kuo (History), Guotong Li (History), Jyotsna Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), Karen Quintiliani (Anthropology), George Scott (Anthropology), Michiko Takeuchi (History), Teresa Wright (Political Science), Oliver Wang (Sociology), R. Scott Wilson (Anthropology)
Administrative Support Coordinator: Ann Chau
Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • Foreign Business and Trade • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Asian and Asian American Studies fosters multi-ethnic and cross-cultural understanding from a global, multi-disciplinary perspective and pursues an active language education program to promote cross-cultural awareness and intercultural understanding.

Through courses of its own and those of cooperating departments, the Department of Asian and Asian American Studies offers a B.A. in Asian American Studies, a B.A. and M.A. in Asian Studies, a B.A. in Chinese Studies, a Single Subject Teaching Credential in Japanese, a B.A. in Japanese, a Minor in Asian American Studies, a Minor in Chinese Language and Culture, a Minor in Japanese Language and Culture, Certificate in Asian Studies, and a Certificate in Asian American Studies. Information and advice relative to the programs are available through the department office, FO3-340.

Minor in Korean Language, Culture and Society
The Minor in Korean Language and Culture focuses on the study of Korean language, culture, and society. It is available to any CSULB student. A minimum of 18 units is required. Students are required to take three core courses in the Korean language. They may choose two upper-division electives in consultation with the program advisor. A C grade in all required and elective classes in the minor is required for continuation in the program.

Required courses:
KOR 102: Fundamentals of Korean (4)
KOR 201: Intermediate Korean (4)
KOR 202: Intermediate Korean (4)

Choose any two from the following courses:
A/ST 307: Modern Asia (3)
A/ST 309: Asia and Globalization (3)
A/ST 315: Modern Korea (3)
A/ST 320: East Asia in Fiction and Film (3)
ASAM 332: Korean American Experience (3)
HIST/WGSS 406A: Asian Women: East and Northeast Asia (3)

Cambodian Courses (KHMR)

LOWER DIVISION

111. Accelerated Study of Khmer for Heritage Speakers I (4)
Prerequisites: Linguistic competency equivalent of a beginning Khmer speaker; one GE Foundation course that may be taken concurrently.
Linguistic and cultural aspects of Khmer language for heritage speakers. Oral and written communication skills in Khmer. Intensive study of literary, historical, social, and aesthetic traditions of Cambodia as seen through Khmer language and literary texts.
Letter grade only (A-F).

211. Accelerated Study of Khmer for Heritage Speakers II (4)
Prerequisites: KHMR 111 linguistic competency or equivalent. Intermediate level linguistic study and cultural aspects of Khmer for heritage speakers. Oral and written communication skills and intensive study of literary, historical, social, and aesthetic traditions of Cambodia through the Khmer language and literary texts.
Letter grade only (A-F).
Korean Courses (KOR)

101. Fundamentals of Korean (4)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to the writing system, pronunciation, vocabulary, and grammar of the Korean language and Korean culture.
Students with previous training or native speakers of Korean may not enroll.

102. Fundamentals of Korean (4)
Prerequisites/Corequisites: One GE Foundation course.
Completion of KOR 101 or competency equivalent to KOR 101.
Introduction to the Korean grammar, reading, writing, and conversation and Korean culture.
Students with previous training or native speakers of Korean may not enroll.

201. Intermediate Korean (4)
Prerequisite: KOR 102 or competency equivalent to KOR 102.
Continuation of fundamentals of Korean. Further development of the grammar, reading, writing, and conversation skills. Exploration of Korean culture and contemporary society. Not open to native speakers of Korean.
Letter grade only (A-F).

202. Intermediate Korean (4)
Prerequisite: KOR 201 or competency equivalent to KOR 201.
Continuation of fundamentals of Korean. Further development of the grammar, reading, writing, and conversation skills. Exploration of Korean culture and contemporary society. Not open to native speakers of Korean.
Letter grade only (A-F).

Filipino Language Courses (FIL)

LOWER DIVISION

101. Fundamentals of Filipino (4)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to the pronunciation, grammar, essential vocabulary, reading, and conversation of modern standard Filipino.

102. Fundamentals of Filipino (4)
Prerequisite: One GE Foundation course which may be taken concurrently, and competency for FIL 101.
Introduction to the pronunciation, grammar, essential vocabulary, reading, and conversation of modern standard Filipino. For non-native and heritage speakers. Not open to native speakers of Filipino or Tagalog.
Letter grade only (A-F).

201. Intermediate Filipino (4)
Prerequisite: FIL 102 or competency equivalent to FIL 102.
Continuation of fundamentals of Filipino language. Further development of grammar, reading, writing, and conversation skills. Exploration of cultures, history, and contemporary society of the Philippines. For non-native and heritage speakers of Filipino or Tagalog.
Letter grade only (A-F).

202. Intermediate Filipino (4)
Prerequisite: FIL 201 or competency equivalent to FIL 201.
Continuation of fundamentals of Filipino language. Further development of grammar, reading, writing, and conversation skills. Exploration of cultures, history, and contemporary society of the Philippines. For non-native and heritage speakers of Filipino or Tagalog.
Letter grade only (A-F).

Vietnamese Courses (VIET)

LOWER DIVISION

111. Accelerated Vietnamese for Heritage Students I (4)
Prerequisites: One GE Foundation course that may be taken concurrently. Conversational ability of Vietnamese.
Designed for students who have listening and speaking ability of Vietnamese. Focuses on Vietnamese literacy and culture, including developing reading and writing skills in context.
Letter grade only (A-F).

211. Accelerated Vietnamese for Heritage Students II (4)
Prerequisites: VIET 111. Ability to speak and comprehend Vietnamese oral and written language at the interpersonal communicative level.
Designed for students who have intermediate listening and speaking ability of Vietnamese and the ability to comprehend simple written Vietnamese texts. Focuses on Vietnamese literacy and culture, including developing reading and writing skills in context.
Letter grade only (A-F).
Introduction

The University sponsors a diverse program of 9 intercollegiate athletic teams and is supervised by the Department of Athletics. The teams compete under the rules of the National Collegiate Athletic Association, the Big West Conference, and the Mountain Pacific Sports Federation, maintaining membership in each organization. Women’s varsity sports are basketball, golf, cross-country, sand volleyball, soccer, tennis, indoor/outdoor track and field, volleyball, water polo and softball. Men’s varsity sports are basketball, baseball, indoor/outdoor track and field, cross-country, water polo, volleyball, and golf. Students enrolling in intercollegiate athletic programs must meet all NCAA eligibility requirements. Information concerning athletic opportunities available to male and female students and the financial resources and personnel that CSULB dedicates to its men’s and women’s teams may be obtained from Cindy Masner, Department of Athletics, (562) 985-7751.

Students may apply no more than four (4) semester units of lower-division ATHL courses toward the baccalaureate degree within the 20-unit maximum on activity units generally, except that the combined total of lower-division ATHL activity units must not exceed four (4) units and the total of lower-division KIN activity units must not exceed eight (8) units. Upper-division ATHL courses, with the exception of ATHL 325, may be taken one time only and not in conjunction with the lower-division ATHL courses. ATHL 325 may be repeated to a maximum of four (4) semester units and may be taken in conjunction with any other ATHL course.

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

Athletics Courses (ATHL)

LOWER DIVISION

Intercollegiate Sports (1)
Enrollment subject to approval of the coach of the sport. Competition in NCAA-regulated sports. Athletes enrolled who fail to qualify for squad must withdraw from course. May be repeated to a maximum of 4 units, including previously earned credits from SAR 1. Credit/No Credit grading only.

- 261. Women’s Softball
- 262. Men’s Baseball
- 263. Women’s Basketball
- 264. Men’s Basketball
- 265. Women’s Track and Field
- 266. Men’s Track and Field
- 269. Women’s Volleyball
- 270. Women’s Water Polo
- 271. Men’s Water Polo
- 272. Men’s Volleyball
- 275. Women’s Golf
- 276. Men’s Golf
- 277. Women’s Tennis
- 281. Women’s Cross-Country
- 282. Men’s Cross-Country
- 284. Women’s Soccer

UPPER DIVISION

319. Theory and Practice of Minor Intercollegiate Sports (2)
Repeatable credits include previous credits from SAR 319.

320. Theory and Practice of Major Intercollegiate Sports (2)
Repeatable credits include previous credits from SAR 320. Credit/No Credit grading only.

325. Student-Athlete Leadership Development and University Service (1)
Prerequisites: Upper-division division standing, consent of instructor. Must be an official member of an NCAA Intercollegiate team at CSULB.

Juniors/seniors hone communication and facilitation abilities to better function within groups, community, and careers. Emphasis on experiential learning component with people dynamic and group process skills, academic and athletic information, and how a peer mentor can positively impact that development.

May be repeated to a maximum of 4 units, including previously earned credits from SAR 325. May be taken in conjunction with any other ATHL course. Credit/No Credit grading only.
**Introduction**

The biological sciences include all of the areas of scientific endeavor centered around the general question of the nature of life. Such diverse areas as biochemistry, ecology, paleontology, and animal behavior are all part of the biological sciences. The discipline of biochemistry is located in the Department of Chemistry and Biochemistry and the discipline of paleontology is located in the Department of Geological Sciences. For information about the programs in these disciplines, consult the appropriate section of this catalog. The remaining disciplines of the biological sciences represented in the College of Natural Sciences and Mathematics are located in the Department of Biological Sciences, which offers five degrees: a Bachelor of Science in Biology, a Bachelor of Science in Marine Biology, a Bachelor of Science in Microbiology, a Master of Science in Biology, and a Master of Science in Microbiology. The B.S. in Biology has, in addition to a general option, three specialized options in Biology Education, Organismal Biology, and Molecular Cell Biology and Physiology. See below for the specific requirements for each of these degrees and options. The Department of Biological Sciences also participates in the Desert Studies Consortium and the Ocean Studies Institute. Information on the latter program is listed in this catalog under Ocean Studies Institute.

**Academic Advising and Facilitated Enrollment into Classes**

All entering students who declare a major in a degree program offered by this department need to contact the College of Natural Sciences and Mathematics’ Academic Advising Center (HSCI 164) and participate in the College’s Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June/July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students’ chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Advising Center (HSCI 164) and participate in the College’s Academic Advising Center (HSCI 164), Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

**The Richard B. Loomis Research Award**

This annual departmental award provides supply and travel support for thesis research projects. Graduate students submit research proposals to the department’s Graduate Studies Committee, which grants funding to the more meritorious proposals.

**Handloser Graduate Student Tuition Grant**

The Handloser Graduate Student Tuition Grant is offered to an outstanding M.S. Biology applicant interested in pursuing master’s thesis research in the area of marine biology.

**Frank Schatzlein Scholarship Award**

The Frank Schatzlein Scholarship Award is available to an outstanding undergraduate student in biological sciences, with upper division standing, studying in the area of cellular physiology. Applications can be obtained from the Biological Sciences Department Office during the month of March.
Linda Warren Graham Medical Technology Scholarship

The Linda Warren Graham Medical Technology Scholarship is available to senior microbiology majors who have applied/ been accepted into a Clinical Laboratory Scientist (or a Medical Technology) Internship program. Scholarship applications can be obtained from the Biological Sciences Department Office during the month of November prior to graduation.

Financial Support, Assistantships

The Department of Biological Sciences offers to graduate students a limited number of teaching associate and graduate assistant appointments. Forms requesting consideration for these appointments are available in the department's Graduate Office. Duties consist of approximately 20 hours per week devoted to preparation and/or instruction in general undergraduate laboratory classes. These appointments are limited to a maximum of six semesters per individual.

The department also has a limited number of technical assistant positions as well as some hourly employment. Several members of the faculty have grants that provide for research assistantships. A number of scholarships are available through the university.

Graduate and Health Professional Preparation

The department provides preparation for advanced study at the graduate level and for entry into various health professional schools. Students should consider the degree requirements listed in the catalog as minimal; some graduate schools, professional schools, or careers may require additional coursework in mathematics, physics, chemistry, or biological sciences.

Students desiring entrance into a graduate school to obtain a master’s or doctoral degree in some area of the biological sciences should determine the entrance requirements for the school(s) of interest early in their undergraduate years. Specifically, students contemplating graduate work in mathematically oriented areas of the biological sciences should consider taking more calculus (MATH 122, 123, 224, and 364A or 370A will substitute for MATH 119A and 119B) and those contemplating graduate work in chemically oriented areas should consider taking additional chemistry (CHEM 220A,B; 251; 377A,B; 441A,B).

Students desiring entrance into one of the various health-related professional schools should consult with the Health Professions Advising Office in the College of Natural Sciences and Mathematics’ Jensen Student Access to Science and Mathematics (SAS) Center (HSCI 164) for more information. Most of these schools do not require students to major in any particular discipline but favor holders of a bachelor’s degree; and want students who have done well in their major and who also took the prerequisite courses required by that particular school.

Undergraduate Programs

Bachelor of Science in Biology

This degree includes a general option in biology and three additional options for those desiring a more specialized program.

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/.

Biology (120 units)

This degree major is designed for students pursuing careers that involve the study of life. This general option is designed to expose students to a wide range of biological topics and is the most flexible option in terms of courses required. With the right elective choices, this option can work for students planning on future careers in health professions or graduate and professional studies in Biological Sciences. Students may not combine this option with any other in the B.S. in Biology nor with the B.S. in Marine Biology or Microbiology as part of a dual major. This option requires approximately 77-81 units in the major, of which 36-38 are in lower division and 41-43 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major.

In addition students must receive a C or better in all upper division major courses.

Degree Progress

Pre-Biology majors must complete the following requirements within the specified time of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

Freshmen: A grade "C" or better must be achieved in CHEM 111A, BIOL 211, and MATH 119A (or 122) within one and a half calendar years.

Lower Division:

Take all of the following courses:

- BIOL 211 Introduction to Evolution and Diversity (4) 
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

- BIOL 212 Intro to Cell and Molecular Biology (4) 
  Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better. 
  Prerequisite/Corequisite: CHEM 111B.

- BIOL 213 Intro to Ecology and Physiology (4) 
  Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of "C" or better

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

- BIOL 260 Biostatistics (3) 
  Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200, MATH 111 or MATH 113 or MATH 119A or MATH 122
all with a grade of "C" or better.

**CHEM 111A General Chemistry (5)**
Prerequisite: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

**CHEM 111B General Chemistry (5)**
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

**CHEM 220A Organic Chemistry I (3)**
Prerequisite: CHEM 111B with a grade of "C" or better.
Corequisites: CHEM 224 is required for students repeating course.
CHEM 222A must be taken concurrently if required by a degree plan.

**CHEM 220B Organic Chemistry II (3)**
Prerequisite: CHEM 220A with a grade of "C" or better.
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.

**CHEM 223A Organic Chemistry Laboratory I (1)**
Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.

**CHEM 223B Organic Chemistry Laboratory II (1)**
Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better.
Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Take one course from the following:

**MATH 119A Survey of Calculus I (3)**
Prerequisite: Appropriate MDP placement or a grade of "C" or better in MATH 113.

**MATH 122 Calculus (4)**
Prerequisite: Appropriate MDP placement or a grade of "C" or better in MATH 111 and MATH 113.

Take one of the following courses:

**PHYS 100A General Physics (4)**
Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.

**PHYS 151 Mechanics and Heat (4)**
Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

**PHYS 100B General Physics (4)**
Prerequisite: PHYS 100A.

**PHYS 152 Electricity and Magnetism (4)**
Prerequisite: PHYS 151;
Corequisite/Corequisite: MATH 123.

The following courses do not meet any specific or elective requirements for this major: BIOL 100, 101 or MIRC 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201 or MIRC 200, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

**Upper Division:**

Take all of the following courses:

**BIOL 312 Evolutionary Biology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.

**BIOL 340 Molecular Cell Biology (3)**
Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.

**BIOL 350 General Ecology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.

**BIOL 370 General Genetics (4)**
Prerequisites: BIOL 211, BIOL 212 and either BIOL 260 or CHEM 251 all with a grade of "C" or better.

**BIOL 480 Seminars (1)**
Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.

Take at least one of the following courses/course pairs in physiology:

**BIOL 342 Human/Mammalian Phys (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

and

**BIOL 342L Lab in Human/Mammalian Phys (1)**
Prerequisite/Corequisite: BIOL 342 with a grade of "C" or better.

or

**BIOL 345 Comparative Animal Phys(3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

and

**BIOL 345L Lab in Comp Animal Phys (1)**
Prerequisite/Corequisite: BIOL 345 with a grade of "C" or better.

or

**BIOL 447 Molecular Plant Physiology (3)**
Prerequisites: BIOL 340, BIOL 370, both with grade of "C" or better.

Take two of the following courses in organismal diversity.

One of the courses must be BIOL 313, BIOL 316, BIOL 324, BIOL 427, or BIOL 439:

**BIOL 311 General Microbiology (4)**
Prerequisites: BIOL 211, BIOL 212; CHEM 111B, all with a grade of "C" or better.

**BIOL 313 Invertebrate Zoology (4)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.

**BIOL 316 General Entomology (4)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

**BIOL 324 Vertebrate Zoology (4)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

**BIOL 419, Ichthyology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and at least 6 additional units of upper division biological science, all with a grade of "C" or better. Recommended: BIOL 350, BIOL 353, and BIOL 370.

**BIOL 421 Herpetology (3)**
Prerequisites: BIOL 260, BIOL 350, and one additional upper division biology course, all with a grade of "C" or better. Recommended: BIOL 312, BIOL 324, or BIOL 370.

**BIOL 423 Mammalogy (3)**
Prerequisites: At least one of BIOL 312, BIOL 324, or BIOL 350, with a grade of "C" or better.

**BIOL 424 Ornithology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and three units of upper division BIOL, all with a grade of "C" or better. Recommended: BIOL 350.

**BIOL 427 Vascular Plant Systematics (4)**
Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better.

**BIOL 439 Plant Morphology (4)**
Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better.

Take three additional upper division courses in the Department of Biological Sciences totaling a minimum of nine units. At least six of these units must be at the 400 level. Courses outside of BIOL that can also count toward these units.
include GEOG 481, CHEM 441A, and CHEM 448.

Courses that will not count towards these units are BIOL 300, BIOL 301, BIOL 304, BIOL 305; MICR 300.

To meet prerequisite standards for courses in this program’s requirements, a “C” or better is necessary in the following: BIOL 211, BIOL 212, BIOL 213, BIOL 260, BIOL 340, BIOL 342/Biol 345, BIOL 370, CHEM 111A, CHEM 111B, CHEM 220A, CHEM 223A, MATH 119A, MATH 122.

Students contemplating graduate or professional school should consider taking 1-3 units of BIOL 496 in addition to the requirements listed above. With prior permission of the advisor for this option, students may use 3 units of BIOL 496 as an elective.

Option in Biology Education (120 units)

This option is designed solely for students who wish to become secondary school Biology teachers. This option requires 80-87 units in the major, of which 46-48 are lower division and 34-39 are upper division. Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major.

In addition, students must receive a “C” or better in all upper division major courses.

Degree Progress

Pre-Biology majors must complete the following requirements within the specified time of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

Freshmen: A grade “C” or better must be achieved in CHEM 111A, BIOL 211, and MATH 119A (or 122) within one and a half calendar years.

Requirements

Lower Division:

Take all of the following:

- BIOL 211 Introduction to Evolution and Diversity (4)
  Prerequisite/Corequisite: CHEM 111A with a grade of “C” or better.

- BIOL 212 Intro to Cell and Molecular Biology (4)
  Prerequisites: BIOL 211, CHEM 111A with grades of “C” or better.
  Prerequisite/Corequisite: CHEM 111B.

- BIOL 213 Intro to Ecology and Physiology (4)
  Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of “C” or better.
  NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

- BIOL 260 Biostatistics (3)
  Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of “C” or better.

- ASTR 100 Astronomy (3)

Corequisites: One course from General Education Category B.2 and ASTR 100L.

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of “C” or better.

Choose either:

- GEOL 106 Earth Science for Teachers (4)
  Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics, including algebra, geometry, and intermediate algebra or the equivalent.

- or both of the following:
  - GEOL 102 General Geology (3)
    Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.
  
  - GEOL 104 Geology Laboratory (1)
    Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.

Take one of the following courses:

- MATH 119A Survey of Calculus I (3)
  Prerequisite: Appropriate MDPT placement or a grade of “C” or better in MATH 113.

- MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of “C” or better in MATH 111 and MATH 113.

Take one of the following courses:

- BIOL 201 General Microbiology for Health Professionals (4)
  Prerequisites: CHEM 111A or CHEM 140 with a grade of “C” or better and GE Foundation requirements.

- BIOL 311 General Microbiology (4)
  Prerequisites: BIOL 211, BIOL 212; CHEM 111B, all with a grade of “C” or better.

Take one of the following courses:

- PHYS 100A General Physics (4)
  Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.

- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

- PHYS 100B General Physics (4)
  Prerequisite: PHYS 100A.

- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151Prerequisite/Corequisite: MATH 123.

These courses do not meet any specific or elective requirements for this major: BIOL 100, BIOL 101, BIOL 200, BIOL 200L, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

Take either:

- CHEM 227 Organic Chemistry (3)
  Prerequisite: CHEM 111A with a grade of “C” or better; CHEM 111B is recommended.

- Or all four of the following courses lower-division courses:
  - CHEM 220A Organic Chemistry I (3)
    Prerequisite: CHEM 111B with a grade of “C” or better.

    Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.
Take at least nine courses totaling at least 26-29 units in the biological sciences including:

All of the following courses:

- **BIOL 312 Evolutionary Biology (3)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.

- **BIOL 340 Molecular Cell Biology (3)**
  - Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.

- **BIOL 350 General Ecology (3)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260, MATH 119A or MATH 122 all with a grade of "C" or better.

- **BIOL 370 General Genetics (4)**
  - Prerequisites: BIOL 211, BIOL 212 and either BIOL 260 or CHEM 251 all with a grade of "C" or better.

- **BIOL 480 Seminars (1)**
  - Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.

One of the following courses in physiology:

- **BIOL 345 Comparative Animal Physiology (3)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

- **BIOL 447 Molecular Plant Physiology (3)**
  - Prerequisites: BIOL 340, BIOL 370, both with grade of "C" or better.

One of the following courses in plant diversity:

- **BIOL 427 Vascular Plant Systematics (4)**
  - Prerequisites: BIOL 312 or BIOL 370 with a grade of "C" or better.

- **BIOL 439 Plant Morphology (4)**
  - Prerequisites: BIOL 312 or BIOL 370 with a grade of "C" or better.

One of the following courses in animal diversity:

- **BIOL 313 Invertebrate Zoology (4)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.

- **BIOL 316 General Entomology (4)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

- **BIOL 324 Vertebrate Zoology (4)**
  - Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

The remaining biological sciences course should be chosen in consultation with an advisor; BIOL 495 is highly recommended. Either CHEM 441A, CHEM 441B or CHEM 448 will count toward this additional required course. Students may use BIOL 496 as one of the nine required upper division courses but only with prior permission of the advisor for this option. These courses do not meet any specific or elective requirements for this major: BIOL 300, BIOL 301, BIOL 304, BIOL 305, and NSCI 492.

To meet prerequisite standards for courses in this program’s requirements, a “C” or better is necessary in the following: BIOL 211, BIOL 212, BIOL 213, BIOL 260, BIOL 312, BIOL 370, CHEM 111A, CHEM 111B, CHEM 220A, CHEM 223A, MATH 119A, MATH 122.

Although SCED 403 and EDSS 300C are not required in the major, the credential does require these courses. Students may want to take some or all of them prior to graduation.

### Single Subject Teaching Credential in Biology

The Biological Sciences Concentration meets the subject matter competence requirement for the Single Subject Teaching Credential in Biology. In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Biology teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses as an undergraduate. Courses may also be started as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Biological Sciences Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

### Option in Organismal Biology (120 units)

This option is designed primarily for those interested in careers that involve the biology of animals, plants and the study of organisms in relation to their environment. It is particularly appropriate for those seeking employment in private industry (such as environmental consulting firms), or government service (such as fish and game agencies), as well as those students contemplating graduate work in these fields. This option requires approximately 78-81 units in the major, of which 36-38 units are in lower division and 42-43 units are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major.

In addition students must receive a C or better in all upper division major courses.
Degree Progress

Pre-Biology majors must complete the following requirements within the specified time of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

Freshmen: A grade "C" or better must be achieved in CHEM 111A, BIOL 211, and MATH 119A (or 122) within one and a half calendar years.

Requirements

Lower Division:

Take all of the following courses:

BIOL 211 Introduction to Evolution and Diversity (4)
- Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

BIOL 212 Intro to Cell and Molecular Biology (4)
- Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
- Prerequisite/Corequisite: CHEM 111B.

BIOL 213 Intro to Ecology and Physiology (4)
- Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of "C" or better.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

BIOL 260 Biostatistics (3)
- Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

CHEM 111A General Chemistry (5)
- Prerequisite: A passing score on the Chemistry Placement Examination.
- Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
- Prerequisites: CHEM 111A and MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

Take one of the following courses:

MATH 119A Survey of Calculus I (3)
- Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

MATH 122 Calculus I (4)
- Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.

Take one of the following courses:

PHYS 100A General Physics (4)
- Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 122.

PHYS 151 Mechanics and Heat (4)
- Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

PHYS 100B General Physics (4)
- Prerequisite: PHYS 100A.

PHYS 152 Electricity and Magnetism (4)
- Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123

These courses do not meet any specific or elective requirements for this major: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 205, BIOL 205L, BIOL 207, and BIOL 208

Take one of the following course combinations in Organic Chemistry or Biochemistry (Groups A or B):

Group A

CHEM 220A Organic Chemistry I (3)
- Prerequisite: CHEM 111B with a grade of "C" or better.
- Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

CHEM 220B Organic Chemistry II (3)
- Prerequisite: CHEM 220A with a grade of "C" or better.
- Corequisite: CHEM 223B or CHEM 320, except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.

CHEM 223A Organic Chemistry Laboratory I (1)
- Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.

CHEM 223B Organic Chemistry Laboratory II (1)
- Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better.
- Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Group B

CHEM 227 Fundamentals of Organic Chemistry (3)
- Prerequisite: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

CHEM 448 Fundamentals of Biological Chemistry (3)
- Prerequisites: CHEM 220B or CHEM 227 either with a grade of "C" or better.

Few, if any, health-related professional schools (e.g. veterinary medicine) will accept CHEM 227. Some graduate programs with masters or doctorates in biology and/or ecology may also not accept CHEM 227. Students interested in these programs might consider taking CHEM 220A,B and CHEM 223A,B. CHEM 227 is not acceptable as a prerequisite for CHEM 441A. CHEM 227 is acceptable toward the Minor in Chemistry.

Upper Division:

Take a minimum of 36 upper division units to include the following:

Take all of the following courses: (11 units)

BIOL 312 Evolutionary Biology (3)
- Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.

BIOL 350 General Ecology (3)
- Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.

BIOL 370 General Genetics (4)
- Prerequisites: BIOL 211, BIOL 212, and either BIOL 260 or CHEM 251 all with a grade of "C" or better.

BIOL 480 Seminars (1)
- Prerequisites: Consent of Department of Biological Sciences.

Take at least one of the following courses/course pairs: 3-4 units

BIOL 345 Comparative Animal Physiology (3)
- Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

BIOL 345L Lab in Comparative Animal Physiology (1)
- Prerequisite/Corequisite: BIOL 345 with a grade of "C" or better.

Or

BIOL 447 Molecular Plant Physiology (3)
- Prerequisites: BIOL 340, BIOL 370, both with grade of "C" or better.
Take at least two of the following courses in organismal diversity, one of which must be BIOL 313, BIOL 316, BIOL 324, BIOL 427, or BIOL 439:

**ECOLOGY COURSES**

- **BIOL 311 General Microbiology (4)**
  Prerequisites: BIOL 211, BIOL 212; CHEM 111B, all with a grade of "C" or better.
- **BIOL 313 Invertebrate Zoology (4)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.
- **BIOL 316 General Entomology (4)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better.
- **BIOL 319, Ichthyology (3)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and at least 6 additional units of upper division biological science, all with a grade of "C" or better. Recommended: BIOL 350, BIOL 353, and BIOL 370.
- **BIOL 324 Vertebrate Zoology (4)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
- **BIOL 419, Mammalogy (3)**
  Prerequisite: At least one of BIOL 312, BIOL 324, or BIOL 350, with a grade of "C" or better.
- **BIOL 424 Ornithology (3)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and three units of upper division BIOL, all with a grade of "C" or better. Recommended: BIOL 350.
- **BIOL 427 Vascular Plant Systematics (4)**
  Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better.
- **BIOL 439 Plant Morphology (4)**
  Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better.

Select a minimum of two courses from the following (any combination of courses from the two groups is acceptable):

**Ecology and Evolution Courses**

- **BIOL 355 Microbial Ecology (3)**
  Prerequisites: BIOL 311 or MICR 211 or BIOL 211, BIOL 212, BIOL 213; BIOL 260, all with a grade of "C" or better.
- **BIOL 412 Advanced Evolutionary Biology (3)**
  Prerequisite: BIOL 312 with a grade of "C" or better.
- **BIOL 450 Plant Ecology (3)**
  Prerequisites: BIOL 260, BIOL 350 with a grade of "C" or better. Recommended: BIOL 427, BIOL 447.
- **BIOL 451 Wetlands and Mangrove Ecology (3)**
  Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better.
- **BIOL 452 Behavioral Ecology (3)**
  Prerequisites: BIOL 312 or BIOL 350. (Undergraduates enroll in BIOL 452; graduates enroll in BIOL 552.)
- **BIOL 454B Research in Tropical Terrestrial Ecology (3)**
  Prerequisites: BIOL 350 with a grade of "C" or better; and consent of instructor. (Undergraduates enroll in BIOL 454B; graduates enroll in BIOL 554B.)
- **BIOL 456 Population Ecology (3)**
  Prerequisites: BIOL 350, MATH 119B or MATH 123 all with a grade of "C" or better.
- **BIOL 457 Field Methods in Ecology (3)**
  Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better.
- **BIOL 459 Conservation Biology (3)**
  Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. Recommended: BIOL 370.
- **BIOL 472 Molecular Evolution (3)**
  Prerequisite: BIOL 370 with a grade of "C" or better. Recommended: BIOL 312.

**Physiology Courses**

- **BIOL 442 Physiology at the Limit (3)**
  Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better.
- **BIOL 443 Endocrinology (3)**
  Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.)
- **BIOL 444 Reproductive Biology (3)**
  Prerequisite: BIOL 342 or BIOL 345 with a grade of "C" or better.
- **BIOL 449 Fish Physio and Endocrinology (3)**
  Prerequisite: BIOL 345 with grade of "C" or better.
- **BIOL 464 Aquatic Toxicology (3)**
  Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 340; CHEM 220A or CHEM 227, all with a grade of "C" or better. Recommended: BIOL 353 and CHEM 448 or CHEM 441A/B.

Take 2-3 additional upper division courses totaling 6-9 units in the Department of Biological Sciences so that a minimum number of 36 upper division units are completed. At least three of these units must be at the 400 level. Note that many 400 numbered courses require BIOL 340, which can also count as one of these elective courses.

Courses outside of BIOL that can also count toward these units include GEOG 481, CHEM 448, and CHEM 448.

Courses that will not count towards these units are BIOL 300, BIOL 301, BIOL 304, BIOL 305.

To meet prerequisite standards for courses in this program's requirements, a "C" or better is necessary in the following: BIOL 211, BIOL 212, BIOL 213, BIOL 260, BIOL 345, CHEM 111A, CHEM 111B, (CHEM 220A, CHEM 223A/CHEM 227), MATH 119A, MATH 122.

Students contemplating graduate or professional school should consider taking 1-3 units of BIOL 496 in addition to the requirements listed above. With prior permission of the advisor for this option, students may use 3 units of BIOL 496 as an elective.

**Option in Molecular Cell Biology and Physiology (120 units)**

This option is designed primarily for those interested in careers that involve biology at the cellular, molecular, and organ system levels and is particularly appropriate for those contemplating graduate work in these fields or entering one of the health professions, such as medicine and physical therapy. Students in this option might also want to pursue the Certificate in Biotechnology described elsewhere in this Catalog. This option requires approximately 76-79 units in the major, of which 43-46 are in lower division and 32-33 are in upper division.

All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major.

In addition, students must receive a "C" or better in all upper division major courses.
Degree Progress

Pre-Biology majors must complete the following requirements within the specified time of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

Freshmen: A grade "C" or better must be achieved in CHEM 111A, BIOL 211, and MATH 119A (or 122) within one and a half calendar years.

Requirements

Lower Division:

Take all of the following courses:

- BIOL 211 Introduction to Evolution and Diversity (4)
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
- BIOL 212 Intro to Cell and Molecular Biology (4)
  Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
  Prequisite/Corequisite: CHEM 111B.
- BIOL 213 Intro to Ecology and Physiology (4)
  Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of "C" or better.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

- BIOL 260 Biostatistics (3)
  Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.
- CHEM 111A General Chemistry (5)
  Prerequisite: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.
- CHEM 111B General Chemistry (5)
  Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.
- CHEM 220A Organic Chemistry I (3)
  Prerequisite: CHEM 111B with a grade of "C" or better.
  Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.
- CHEM 220B Organic Chemistry II (3)
  Prerequisite: CHEM 220A with a grade of "C" or better.
  Corequisite: CHEM 220B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.
- CHEM 223A Organic Chemistry Laboratory I (1)
  Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.
- CHEM 223B Organic Chemistry Laboratory II (1)
  Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better.
  Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Take one of the following courses:

- MATH 119A Survey of Calculus I (3)
  Prerequisites: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
- MATH 122 Calculus I (4)
  Prerequisites: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

Take one of the following courses:

- PHYS 100A General Physics (4)
  Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 122.
- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

- PHYS 100B General Physics (4)
  Prerequisite: PHYS 100A.
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151.
  Prerequisite/Corequisite: MATH 123.

Upper Division:

Take all of the following courses:

- BIOL 340 Molecular Cell Biology (3)
  Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.
- BIOL 370 General Genetics (4)
  Prerequisites: BIOL 211, BIOL 212 and either BIOL 260 or CHEM 251 all with a grade of "C" or better.
- BIOL 480 Seminars (1)
  Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.
- CHEM 441A Biological Chemistry (3)
  Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.
- CHEM 441B Biological Chemistry (3)
  Prerequisite: CHEM 441A with a grade of "C" or better.

Take one of the following:

- BIOL 312 Evolutionary Biology (3)
  Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.
- BIOL 350 General Ecology (3)
  Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.

Take at least one of the following courses/course pairs:

- BIOL 342 Human/Mammalian Phys (3)
  Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
  And
  BIOL 342L Lab in Human/Mammalian Phys (1)
  Prerequisite/Corequisite: BIOL 342 with a grade of "C" or better.
  Or
  BIOL 345 Comparative Animal Phys (3)
  Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
  And
  BIOL 345L Lab in Comp Animal Phys (1)
  Prerequisite/Corequisite: BIOL 345 with a grade of "C" or better.
  Or
  BIOL 440L Molecular Cell Biology Lab (3)
  Prerequisites: BIOL 340, BIOL 370, both with a grade of "C" or better, and consent of instructor.

Take four additional courses totaling at least 12 units selected from the following:

- BIOL 311 General Microbiology (4)
  Prerequisites: BIOL 211, BIOL 212; CHEM 111B, all with a grade of "C" or better.
- BIOL 431 Biology of Cancer (3)
  Prerequisites: BIOL 340, 370 with a grade of "C" or better.
BIOL 432 Stem Cell Biology (3)
Prerequisite: BIOL 340 and 370 with a grade of "C" or better.

BIOL 433 Developmental Biology (3)
Prerequisites: BIOL 340; BIOL 370 or BIOL 371 or MICR 371, both with a grade of "C" or better.

BIOL 440L Molecular Cell Biology Lab (3)
Prerequisites: BIOL 340, BIOL 370, both with a grade of "C" or better, and consent of instructor.

BIOL 442 Physiology at the Limit (3)
Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better.

BIOL 443 Endocrinology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.)

BIOL 444 Reproductive Biology (3)
Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better.

BIOL 445 Metabolic Regulation (3)
Prerequisites: BIOL 340, BIOL 342 or BIOL 345; CHEM 441A with grade of "C" or better.

BIOL 447 Molecular Plant Physiology (3)
Prerequisites: BIOL 340, BIOL 370, both with grade of "C" or better.

BIOL 448 Principles of Neurobiology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.)

BIOL 449 Fish Physiology and Endocrinology (3)
Prerequisite: BIOL 345 with grade of "C" or better.

BIOL 472 Molecular Evolution (3)
Prerequisite: BIOL 370 with a grade of "C" or better.

BIOL 473 Molecular Genetics (3)
Prerequisites: BIOL 370 or BIOL 371 or MICR 371; CHEM 220A,B and 223A,B, or CHEM 227, all with a grade of "C" or better.

BIOL 474 Bioinformatics (3)
Prerequisites: BIOL 260; BIOL 370 or BIOL 371 or MICR 371, all with a grade of "C" or better.

BIOL 477 Biotechnology & Bioinformatics (4)
Prerequisite: BIOL 340 or 370 or CHEM 441A,B; all with a grade of "C" or better.

BIOL 416 Virology (3)
Prerequisite: BIOL 320 or MICR 320 or BIOL 340 with a grade of "C" or better.

BIOL 430 Immunology (3)
Prerequisite: BIOL 340 with a grade of "C" or better.

With permission of the appropriate advisor, students may substitute one course in the biological sciences that is not on the above list for one of these four courses. These courses do not meet any specific or elective requirements for this major: BIOL 300, BIOL 301, BIOL 304, BIOL 305, 309; and NSCI 492.

To meet prerequisite standards for courses in this program's requirements, a "C" or better is necessary in the following: BIOL 211, BIOL 212, BIOL 213, BIOL 260, BIOL 340, BIOL 342, BIOL 345, BIOL 370, CHEM 111A, CHEM 111B, CHEM 220A, CHEM 223A, CHEM 228B/CHEM 223B, CHEM 441A, MATH 119A/MATH 122.

Students contemplating graduate or professional school should consider taking 1-3 units of BIOL 496 in addition to the requirements listed above. With prior permission of the advisor for this option, students may use 3 units of BIOL 496 as an elective.

**Bachelor of Science in Marine Biology (120 units)**

Marine biology is the study of the biology and ecology of organisms found in the ocean. This degree provides a base to pursue graduate school, along with a variety of careers in environmental consulting, government, teaching, and public aquaria. This major requires approximately 78-85 units in the major, of which 38-44 are in lower division and 41 are in upper division. All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major. In addition students must receive a "C" or better in all upper division major courses.

**Admission Under Impaction**

Refer to the following website for additional impaction criteria: [http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html](http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html).

**Requirements**

**Lower Division:**

Take all of the following courses:

BIOL 153 Introduction to Marine Biology (3)
Prerequisites/Corequisites: Courses that fulfill the A.1 and B.2 GE requirements.

BIOL 211 Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

BIOL 212 Intro to Cell and Molecular Biology (4)
Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.

BIOL 213 Intro to Ecology and Physiology (4)
Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of "C" or better.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

BIOL 260 Biostatistics (3)
Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

CHEM 111A General Chemistry (5)
Prerequisite: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 109 or better.

Take one of the following courses:

PHYS 100A General Physics (4)
Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 122.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

MATH 119A Survey of Calculus I (3)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

These courses do not meet any specific or elective requirements for this major: BIOL 100, BIOL 101, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

Take either:
Take a minimum of three courses from the following:

**BIOL 411 Marine Mammalogy (3)**
Prerequisite: BIOL 345, BIOL 350, and BIOL 353, all with a grade of "C" or better, and consent of instructor.

**BIOL 415 Marine Microbiology (3)**
Prerequisite: BIOL 350, BIOL 353, and CHEM 111A, CHEM 111B, CHEM 220A or CHEM 227, all with a grade of "C" or better.

or all four of the following courses lower-division courses:

**CHEM 220A Organic Chemistry I (3)**
Prerequisite: CHEM 111B with a grade of "C" or better.
Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

**CHEM 220B Organic Chemistry II (3)**
Prerequisite: CHEM 220A with a grade of "C" or better.
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 220A.

**CHEM 223A Organic Chemistry Laboratory I (1)**
Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.

**CHEM 223B Organic Chemistry Laboratory II (1)**
Prerequisite: CHEM 220A and CHEM 223A, both with a grade of "C" or better.

Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Upper Division:

Take all of the following courses:

**BIOL 312 Evolutionary Biology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.

**BIOL 313 Invertebrate Zoology (4)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.

**BIOL 340 Molecular Cell Biology (3)**
Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.

**BIOL 345 Comparative Animal Physiology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.

**BIOL 345L Lab in Comparative Animal Physiology (1)**
Prerequisite/Corequisite: BIOL 345 with a grade of "C" or better.

**BIOL 350 General Ecology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.

**BIOL 353 Marine Biology (3)**
Prerequisites: BIOL 153, BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with grade of "C" or better.

**BIOL 370 General Genetics (4)**
Prerequisites: BIOL 211 and either BIOL 260 or CHEM 251 all with a grade of "C" or better.

**BIOL 419 Ichthyology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and at least 6 additional units of upper division biological science, all with a grade of "C" or better. Recommended: BIOL 350, BIOL 353, and BIOL 370.

**BIOL 425 Phycology (4)**
Prerequisite: BIOL 353 with a grade of "C" or better.

**BIOL 480 Seminars (1)**
Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enrolled in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.

Take a minimum of three courses from the following:

**BIOL 411 Marine Mammalogy (3)**
Prerequisites: BIOL 345, BIOL 350, and BIOL 353, all with grade of "C" or better, and consent of instructor.

**BIOL 415 Marine Microbiology (3)**
Prerequisite: BIOL 350, BIOL 353, and CHEM 111A, CHEM 111B, CHEM 220A or CHEM 227, all with a grade of "C" or better.

**BIOL 420 Fisheries Ecology and Conservation (3)**
Prerequisites: BIOL 260, BIOL 350, 353, and 419, all with grade of "C" or better.

**BIOL 449 Fish Physiology and Endocrinology (3)**
Prerequisite: BIOL 345 with grade of "C" or better.

**BIOL 451 Wetlands and Mangrove Ecology (3)**
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better.

**BIOL 454A Research in Tropical Marine Ecology (3)**
Prerequisites: BIOL 350, BIOL 353, and one 400-level marine biology major course, all with grade of "C" or better, and consent of instructor.

**BIOL 455 Ecology of Marine Communities (3)**
Prerequisites: BIOL 260, BIOL 350, BIOL 353 all with a grade of "C" or better.

**BIOL 457 Field Methods in Ecology (3)**
Prerequisites: BIOL 260, BIOL 350 both all with a grade of "C" or better.

**BIOL 463 Computer Modeling in Biology (4)**
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better.

**BIOL 464 Aquatic Toxicology (3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 340; CHEM 220A or CHEM 227, all with a grade of "C" or better.

**GEOG 481 Geographic Information Science for Natural Sciences (4)**
Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or BIOL 153 or GEOL 102.

**GEOL 465 Physical and Chemical Oceanography (3)**
Prerequisites: CHEM 111B; PHYS 100A or PHYS 151, and upper division standing in the College of Natural Sciences and Mathematics or Engineering.

**GEOL 466 Oceanography Laboratory and Ocean Studies (1)**
Prerequisite/Corequisite: GEOL 465.

**PHYS 100B General Physics (4)**
Prerequisite: PHYS 100A.

or

**PHYS 152 Electricity and Magnetism (4)**
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

**MATH 119B Survey of Calculus II (3)**
Prerequisite: A grade of "C" or better in MATH 119A or MATH 122.

or

**MATH 123 Calculus II (4)**
Prerequisite: A grade of "C" or better in MATH 119A or MATH 122.

and

**BIOL 490 Selected Topics in Biology (1-3)**
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.

3 units of:

**BIOL 496 Undergraduate Directed Research (1-3)**
Prerequisites: BIOL 211, 212; one of BIOL 213, BIOL 311 or MICR 211, BIOL 296 or MICR 296; consent of instructor; and consent of appropriate undergraduate advisor.

These courses do not meet any specific or elective requirements for this major: BIOL 300, BIOL 301, BIOL 304, BIOL 305; and NSCI 492.

To meet prerequisite standards for courses in this program's requirements, a "C" or better is necessary in the following: BIOL 153, BIOL 211, BIOL 212, BIOL 213, BIOL 260, BIOL 345, BIOL 353, CHEM 111A, CHEM 111B.
220A, CHEM 223A, MATH 119A/MATH 122.

Few, if any, health-related professional schools (e.g. veterinary medicine) will accept CHEM 227. Some graduate programs with masters or doctorates in biology and/or marine biology may also not accept CHEM 227. Students interested in these programs might consider taking PHYS 100B or PHYS 152; MATH 119B or MATH 122; CHEM 220A,B and CHEM 223A,B. CHEM 227 is not acceptable as a prerequisite for CHEM 441A. CHEM 227 is acceptable toward the Minor in Chemistry.

Bachelor of Science in Microbiology (120 units)

Microbiology is the study of microorganisms and their interactions with humans, other organisms, and the environment. This degree is appropriate for those contemplating graduate work in microbiology or, with the inclusion of appropriate classes, may be utilized by pre-professional students. Students in this option might also want to pursue the Certificate in Biotechnology described elsewhere in this Catalog. This undergraduate major is recognized by the American Society for Microbiology as meeting their core curriculum for the baccalaureate degree program in microbiology. This major requires 77-78 units in the major, of which 40-41 are lower division and 37 are upper division. All students must achieve at least a 2.0 grade-point average in each of the following: 1. the entire college record, 2. all units attempted at CSULB, and 3. all courses in the major. In addition, students must receive a "C" or better in all upper division major courses.

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Degree Progress

Pre-Microbiology majors must complete the following requirements within the specified time of declaring the pre-major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

Freshmen: A grade "C" or better must be achieved in CHEM 111A, BIOL 211, and MATH 119A (or MATH 122) within one and a half calendar years.

Requirements

Lower Division:

Take all of the following courses:

- BIOL 211 Introduction to Evolution and Diversity (4)
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
- BIOL 212 Introduction to Cell & Molecular Biology (4)
  Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
  Prequisite/Corequisite: CHEM 111B.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.
- BIOL 260 Biostatistics (3)
  Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.
- CHEM 111A General Chemistry (5)
  Prerequisite: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.
- CHEM 111B General Chemistry (5)
  Prerequisites: CHEM 111A and MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.
- CHEM 220A Organic Chemistry I (3)
  Prerequisite: CHEM 111B with a grade of "C" or better.
  Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.
- CHEM 220B Organic Chemistry II (3)
  Prerequisite: CHEM 220A with a grade of "C" or better.
  Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.
- CHEM 223A Organic Chemistry Laboratory I (1)
  Corequisite: CHEM 220A, except for students who have previously earned a "C" or better in CHEM 220A.
- CHEM 223B Organic Chemistry Laboratory II (1)
  Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better.
  Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.

Take one of the following courses:

- PHYS 100A General Physics (4)
  Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.
- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

Take one of the following courses:

- PHYS 100B General Physics (4)
  Prerequisite: PHYS 100A.
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Take one of the following courses:

- MATH 119A Survey of Calculus I (3)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
- MATH 122 Calculus I (4)
  Prerequisites: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

These courses do not meet any specific or elective requirements for this major: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

Upper Division:

Take one of the following courses:

- CHEM 448 Fundamentals of Biological Chemistry (3)
  Prerequisites: CHEM 220B or CHEM 227 either with a grade of "C" or better.
- CHEM 441A Biological Chemistry (3)
  Prerequisite: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.

Take one of the following courses:

- BIOL 311 General Microbiology (4)
  Prerequisites: BIOL 211, BIOL 212, CHEM 111B, all with a grade of "C" or better.
- BIOL 320 Bacterial Pathogenesis (3)
  Prerequisite: BIOL 311 with a grade of "C" or better. Recommended: BIOL 320L.
- BIOL 340 Molecular Cell Biology (3)
  Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.
BIOL 355 Microbial Ecology (3)
Prerequisites: BIOL 211 or BIOL 311, BIOL 212, BIOL 213; BIOL 260, all with a grade of "C" or better.

BIOL 371 Microbial Genetics (3)
Prerequisite: BIOL 311 with a grade of "C" or better.

BIOL 372 Methods in Microbial Genetics (2)
Prerequisite: BIOL 311 with a grade of "C" or better. Recommended: BIOL 371.

BIOL 471 Bacterial Physiology (3)
Prerequisites: BIOL 320, BIOL 448 or CHEM 441A; both with a grade of "C" or better.

BIOL 480 Seminars (1)
Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.

Take four courses totaling at least 12 elective units chosen from the following, one of which must be BIOL 320L, BIOL 322, BIOL 355L, BIOL 415, BIOL 434, BIOL 474, or BIOL 477:

BIOL 320L Bacterial Pathogenesis Laboratory (2)
Prerequisite: BIOL 212 or BIOL 311, with a grade of "C" or better.

BIOL 322 Medical Mycology/Parasitology (4)
Prerequisites: BIOL 211, BIOL 212; BIOL 320, all with a grade of "C" or better.

BIOL 325 Emerging Infectious Diseases (3)
Prerequisites: BIOL 311 with a grade of "C" or better and consent of instructor.

BIOL 355L Microbial Ecology Laboratory (2)
Prerequisite/Corequisite: BIOL 355.

BIOL 415 Marine Microbiology (3)
Prerequisites: BIOL 320 or BIOL 340 with a grade of "C" or better.

BIOL 416 Virology (3)
Prerequisites: BIOL 320 or BIOL 340 with a grade of "C" or better.

BIOL 429 Epidemiology of Infectious Diseases (3)
Prerequisites: BIOL 260; BIOL 320, BIOL 322; all of a grade of "C" or better.

BIOL 430 Immunology (3)
Prerequisite: BIOL 340 with a grade of "C" or better.

BIOL 434 Hematology (4)
Prerequisite: BIOL 340 with a grade of "C" or better.

BIOL 473 Molecular Genetics (3)
Prerequisites: BIOL 370 or BIOL 371 or MICR 371; CHEM 220A,B and CHEM 223A,B, or CHEM 227, all with a grade of "C" or better.

BIOL 474 Bioinformatics (3)
Prerequisites: BIOL 370 or BIOL 371 or MICR 371, all with a grade of "C" or better.

BIOL 477 Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)
Prerequisites: BIOL 340 or BIOL 370 or CHEM 441A,B; all with a grade of "C" or better.

BIOL 490 Selected Topics in Biology (1-3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.

BIOL 495 Instruction in Laboratory Teaching (1-2)
Prerequisites: Consent of instructor, an "A" in the course in which the student elects to do BIOL 495 (another course with laboratory may be substituted with consent of instructor), and an overall GPA of at least 3.0.

CHEM 441B Biological Chemistry (3)
Prerequisite: CHEM 441A with a grade of "C" or better.

Students may use BIOL 496 towards the additional units but only with prior permission of the advisor for this degree. Those students seeking a career as a Clinical Laboratory Scientist/Medical Technologist are encouraged to take BIOL 320L, BIOL 416, BIOL 423, and BIOL 430. These courses do not meet any specific or elective requirements for this major: BIOL 300, BIOL 301, BIOL 304, BIOL 305; and NSCI 492.

To meet prerequisite standards for courses in this program’s requirements, a "C" or better is necessary in the following: BIOL 211, BIOL 212, BIOL 311, BIOL 320, BIOL 340, CHEM 111A, CHEM 111B, CHEM 220A, CHEM 223A, CHEM 220B/CHIM 223B, MATH 119A/MATH 122

**Minor in Biology**

This minor may be combined with any major at CSULB except the B.S. in Biology (all options), B.S. in Microbiology, and B.S. in Marine Biology. A minimum of 21 units is required for this minor.

**Lower Division:**

Take all of the following courses:

- **BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208**

**Upper Division:**

Take a minimum of nine units selected from upper division biology courses with at least one course selected from the 400 series. The nine units must include at least one biology course with at least one course selected from BIOL 341, BIOL 342, BIOL 342L, BIOL 345, BIOL 345L, BIOL 443, BIOL 445, BIOL 448, BIOL 490.

Six units must be selected from other courses in the

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*Twelve units must be selected from other courses in the program’s requirements, a "C" or better is necessary in the following: BIOL 211, BIOL 212, BIOL 311, BIOL 320, BIOL 340, CHEM 111A, CHEM 111B, CHEM 220A, CHEM 223A, CHEM 220B/CHIM 223B, MATH 119A/MATH 122.

**Minor in Physiology**

This minor may be combined with any major at CSULB except the B.S. in Biology, Option in Physiology.

A minimum of 18 upper division units.

Twelve units must be selected from the following:

- **BIOL 341, BIOL 342, BIOL 342L, BIOL 345, BIOL 345L, BIOL 443, BIOL 445, BIOL 448, BIOL 490.**

*NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.*

CHEM 111A and 111B are required if the courses are taken at CSULB.

These courses do not meet any specific or elective requirements for this minor: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

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*This minor may be combined with any major at CSULB except the B.S. in Biology (all options), B.S. in Microbiology, and B.S. in Marine Biology. A minimum of 21 units is required for this minor.*

*NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.*

CHEM 111A and 111B are required if the courses are taken at CSULB.

These courses do not meet any specific or elective requirements for this minor: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208

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*This minor may be combined with any major at CSULB except the B.S. in Biology, Option in Physiology.

A minimum of 18 upper division units.

Twelve units must be selected from the following:

- **BIOL 341, BIOL 342, BIOL 342L, BIOL 345, BIOL 345L, BIOL 443, BIOL 445, BIOL 448, BIOL 490.**

Six units must be selected from other courses in the
above list or from the following:

- BIOL 473, CHEM 441A,B, CHEM 443, or CHEM 448.

At least one of the upper division courses taken for this minor must have a laboratory. Most of these upper-division courses require CHEM 111A,B and BIOL 211, BIOL 212, BIOL 213 as prerequisites; some have other prerequisites in addition.

These courses do not meet any specific or elective requirements for this minor: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208.

These courses do not meet any specific or elective requirements for this minor: BIOL 300, BIOL 301, BIOL 304, BIOL 305, 309; MICR 300; and NSCI 492.

**Minor in Microbiology**

This minor may be combined with any major at CSULB except the B.S. in Marine Biology. A minimum of 21 units is required for this minor.

**Lower Division:**

- Take all of the following courses:
  - BIOL 211 Introduction to Evolution and Diversity (4)
    - Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
  - BIOL 212 Intro to Cell and Molecular Biology (4)
    - Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better. Prerequisite/Corequisite: CHEM 111B.
  - BIOL 311 General Microbiology (4)
    - Prerequisites: BIOL 211, 212; CHEM 111B, all with a grade of "C" or better. CHEM 111A and 111B are required if the courses are taken at CSULB.

The following courses do not meet any specific or elective requirements for this minor: BIOL 100, 101, 153, 153L, 200, 200L, 201, 205, 205L, 207, 208.

- Take a minimum of nine units selected from upper division microbiology courses with at least one course chosen from BIOL 320, 355, or 371 and at least 3 units from the 400 series.

The following courses do not meet any specific or electives for this minor: BIOL 300, 301, 304, 305, 308, and NSCI 492.

**Certificate Program in Biomedical Art**

This is an interdisciplinary program sponsored by the Art and Biological Sciences departments. For requirements, see the Art section of this catalog.

**Certificate in Biotechnology**

Biotechnology refers to a process which ultimately yields a product that can be loosely subdivided into five categories; biological organisms with novel traits, DNAs, RNAs, proteins, and compounds. The certificate may be earned in conjunction with or subsequent to a baccalaureate degree. Courses offered for the certificate may be used to satisfy, as appropriate, major or minor requirements.

This certificate program is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

**Prerequisites for Admission**

Completion of the following courses with a grade of "C" or better (or consent of the biotechnology certificate program director): CHEM 111A,B; CHEM 220A,B and CHEM 223A,B; CHEM 441A,B; BIOL 311, BIOL 340, BIOL 370.

These courses do not meet any specific or elective requirements for this certificate: BIOL 100, BIOL 101, BIOL 153, BIOL 153L, BIOL 200, BIOL 200L, BIOL 201, BIOL 205, BIOL 205L, BIOL 207, BIOL 208.

**Requirements**

1. A baccalaureate degree (can be concurrent);
2. Completion of prerequisites;
3. Approval by the program director;
4. Completion of the core curriculum:
   - BIOL 477/577 Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)
     - Prerequisites: BIOL 340 or 370 or CHEM 441A,B; all with a grade of "C" or better. (Undergraduates enroll in BIOL 477; graduates enroll in BIOL 577.)
   - BIOL 480/580 Seminars (1)
     - Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.

One of the following courses:

- BIOL 440L. Molecular Cell Biology Laboratory (3)
  - Prerequisites: BIOL 340, BIOL 370, both with a grade of "C" or better.
  - or
- BIOL 372 Methods in Microbial Genetics (2)
  - Prerequisite: BIOL 311 with a grade of "C" or better.
  - Recommended: BIOL 371.
  - or
- CHEM 443, Biological Chemistry Laboratory (4)
  - Prerequisites: CHEM 251, CHEM 441A; and either CHEM 361 or CHEM 466, all with a grade of "C" or better.

One of the following courses:

- BIOL 492A./592A. Stem Cell Research Internship (12)
  - Prerequisites: BIOL 432/532, BIOL 432L/532L, BIOL 440L, BIOL 462/562, BIOL 473/573, BIOL 477/577, all with a grade of "C" or better, and permission of the director of the CSULB Biotechnology Certificate Program, and acceptance in the Stem Cell Training Option within the Biotechnology Certificate. (Undergraduates enroll in BIOL 492A; graduates enroll in BIOL 592A.)
  - or
- NSCI 492 Internships In Natural Science (3)
  - Prerequisites: Major in the College of Natural Sciences and Mathematics, completion of 9 units of upper division science coursework, a 2.5 GPA overall or 2.75 GPA in the student's major, and consent of instructor prior to registration.

Take an additional 6 units selected from the following list:


5. Completion of 2 units consisting of an approved research project in biotechnology to be taken from one or more of the following:

- BIOL 496; CHEM 496 (undergraduate students); CHEM 697; CHEM 697 (graduate students);

6. BIOL 300, BIOL 301, and BIOL 304 do not meet any specific or elective requirements for this certificate.

7. Total 18 units required.
Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in a community or another college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for prior approval to enroll in specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be met; see 'Concurrent Enrollment' and 'Transfer of Undergraduate Credit' in this catalog. Courses not receiving prior approval will not be accepted for credit by the department.

GRADUATE PROGRAMS

Master of Science in Biology

This degree is available to qualified students preparing for professional careers in industry and government and for further studies at the doctoral level. In addition, a master's degree in biology, combined with appropriate courses in education, can be utilized for a community college teaching credential. This degree requires a thesis based on original scientific research; a list of research areas with the names of faculty specializing in these areas can be obtained from the department's website.

Admission to the Department

Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student, stated previously in this catalog under Graduate Degrees and Post Baccalaureate Studies, the Department of Biological Sciences requires:
1. A faculty member in the department must agree to serve as the thesis advisor to the student prior to her/his acceptance into the M.S. program;
2. A bachelor's degree in the biological or related sciences from an accredited institution. Students with alternative undergraduate degrees will be considered;
3. An undergraduate GPA in all completed science and mathematics courses of at least 2.70 OR a GPA of at least 3.00 in the last 40 semester (or 60 quarter) units of science and mathematics courses completed;
4. The GRE General Test must have been taken prior to applying to the Department. The applicant should score in the 50th percentile or better in Verbal and Quantitative sections. If either the GRE Verbal or Quantitative score (but not both) is below the 50th percentile, the student may be considered for acceptance if their respective undergraduate grades in English or Math are a B average or better. The GRE must have been taken within five years prior to the intended admission date.
5. Applicants without a degree within a field of the biological sciences must also take the GRE Biology or Biochemistry, Cell and Molecular Biology Subject Test. A score of 50th percentile or better on the GRE Subject Test in Biology, or Biochemistry, Cell and Molecular Biology must be achieved.

Students who do not meet the minimum required criteria for acceptance are encouraged to take post-baccalaureate courses to bring up their GPA or GRE scores.

Application

Prospective graduate students in M.S. in Biology, including CSULB graduates, must formally apply for admission to CSULB as described previously in this catalog and must also apply directly to the Department of Biological Sciences. All applicants must submit the following documents directly to the Department no later than the deadline as seen on the Graduate Advising home page (http://web.csulb.edu/divisions/aa/grad/advising/) for the fall semester to receive consideration for admission:
1. Departmental Application Form, also available from the Department's Graduate Office;
2. A one page essay describing why the applicant wishes to obtain an M.S. degree in Biology at CSULB and how this relates to her/his career objectives;
3. Unofficial transcripts of all college level academic work, including those completed at CSULB (these are in addition to those transcripts required for general graduate admission to CSULB);
4. Three letters of recommendation from persons familiar with the applicant's academic performance, as well as research and teaching potential; and
5. Official report of the GRE General Test scores. The applicant should have taken this examination prior to applying to the Department, because the official scores must reach the Department by the deadline above. These materials must be submitted to the Graduate Office, Department of Biological Sciences, California State University, Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-9502.

Review by the Graduate Studies Committee

The Graduate Studies Committee will review all completed applications received by the deadlines. Admission into the M.S. Program in Biology is competitive, with an applicant's college GPA, GRE Test scores, one-page essay, and letters of recommendation weighed in the decision to accept or decline. Applicants who are admitted into the program will enter as a Classified Graduate Student, as described below.

Admission to the Department of Biological Sciences as a Classified Graduate Student

The Department of Biological Sciences may admit as a Classified Graduate Student any applicant who:
1. has met all prerequisites,
2. has a complete application folder, and
3. has obtained acceptance by a faculty member to serve as her/his Thesis Advisor.

The Thesis Proposal

After admission to the Department as a Classified Graduate Student, the student in consultation with the Thesis Advisor, must prepare her/his Thesis Proposal and Program of Study, which includes all coursework to be taken. The Thesis Proposal must include a thorough review of relevant primary literature that demonstrates the context of the proposed research, it must clearly define the experiments proposed...
Advancement to Candidacy

The Program of Study

The Program of Study must include six units of Thesis (BIOL 698), one to three units of Directed Research (BIOL 697), three units of Experimental Design (BIOL 696A), three units of Scientific Communication (BIOL 696B), one unit of Seminar (BIOL 580), and four units from: BIOL 661, BIOL 663, BIOL 664, BIOL 665, BIOL 666; or CHEM 595A; BIOL 661-666 topics must be different. Of the minimum 30 units, no more than six may come from BIOL 661-666 and no more than two units of CHEM 595A; no more than nine may come from transfer credit; and no more than one 300-level course may be included. Any 300-level course on a graduate program of study must be approved by the Thesis Advisor and the Graduate Advisor. BIOL 696A will be taken during the student's initial fall semester; the course will cover experimental design, statistics, and literature research, and help students in preparing their Thesis Proposal. BIOL 696B will be taken during the first spring semester in the program, and will cover both oral and written scientific presentation. BIOL 696B is intended to facilitate manuscript and thesis writing and to help students learn to articulate their findings for their thesis defense. The Program of Study must be prepared, presented to, and approved by the Thesis Committee before the end of the second semester after admission to the Department. Failure to meet this requirement will result in dismissal from the M.S. in Biology program. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

Requirements for the Master of Science in Biology

In addition to the general University requirements stated previously in this catalog, the student must meet the following requirements before receiving the degree of Master of Science in Biology. The requirements are:

1. Advancement to Master's Candidate status (see above);
2. Maintenance of a 3.00 (“B” average) or better, overall GPA (includes all upper-division and graduate level courses taken since admission to this University and after completion of the baccalaureate degree) and graduate program GPA. If either GPA falls below 3.00, it must be elevated to a 3.00 by the end of the following semester or the student will be dismissed from the M.S. program in Biology;
3. Successful completion of the following: written thesis and public defense followed by a private defense with the Thesis Committee; and
4. Service as a Teaching Assistant or Graduate Assistant. Under some circumstances, this requirement may be waived.

Requests to graduate must be received by Enrollment Services approximately 6 months in advance of the expected graduation date (Check the Schedule of Classes for the date). These degree requirements must be completed within 7 years from when the first course on the Program of Study was completed, including academic leaves, or the student's degree program will be terminated.

Master of Science in Microbiology

This degree is available to qualified students preparing for professional careers in industry and government and for further studies at the doctoral level. In addition, a master's degree in microbiology, combined with appropriate courses in education, can be utilized for a community college teaching credential. This degree requires a thesis based on original scientific research; a list of research areas with the names of faculty specializing in these areas can be obtained from the department's website.

Admission to the Department

Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student, stated previously in this catalog under Graduate Degrees and Post Baccalaureate Studies, the Department of Biological Sciences requires:

1. A faculty member in the department must agree to serve as the thesis advisor for the student prior to her/his acceptance into the M.S. program;
2. A bachelor's degree in the biological or related sciences
from an accredited institution. Students with alternative undergraduate degrees will be considered, but they will likely be assigned deficiency courses by the Thesis Advisor in consultation with the Graduate Advisor;

3. An undergraduate GPA in all completed science and mathematics courses of at least 2.70 OR a GPA of at least 3.00 in the last 40 semester (60 quarter) units of science and mathematics courses completed;

4. The GRE General Test must have been taken prior to applying to the Department. The applicant should score in the 50th percentile or better in Verbal and Quantitative sections. If either the GRE Verbal or Quantitative score (but not both) is below the 50th percentile, the student may be considered for acceptance if their respective undergraduate grades in English or Math are a B average or better. The GRE must have been taken within five years prior to the intended admission date.

5. Applicants without a degree within a field of the biological sciences must also take the GRE Biology or Biochemistry, Cell and Molecular Biology Subject Test. A score of 50th percentile or better on the GRE Subject Test in Biology, or Biochemistry, Cell and Molecular Biology must be achieved.

Students who do not meet the minimum required criteria for acceptance are encouraged to take post-baccalaureate courses to bring up their GPA or GRE scores.

Application

Prospective graduate students in M.S. in Microbiology, including CSULB graduates, must formally apply for admission to CSULB as described previously in this catalog and must also apply directly to the Department of Biological Sciences. All applicants must submit the following documents directly to the Department by the deadline as seen on the Graduate Advising home page (http://web.csulb.edu/divisions/aa/grad/advising/) for the fall semester to receive consideration for admission:

1. Departmental Application Form, also available from the Department's Graduate Office;

2. A one page essay describing why the applicant wishes to obtain an M.S. degree in Microbiology at CSULB and how this relates to her/his career objectives;

3. Unofficial transcripts of all college level academic work, including those completed at CSULB (these are in addition to those transcripts required for general graduate admission to CSULB);

4. Three letters of recommendation from persons familiar with the applicant's academic performance, as well as research and teaching potential; and

5. Official report of the GRE General Test scores. The applicant should have taken this examination prior to applying to the Department, because the official scores must reach the Department by the deadline above.

These materials must be submitted to the Graduate Office, Department of Biological Sciences, California State University, Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-9502.

Review by the Graduate Studies Committee

The Graduate Studies Committee will review all completed applications received by the deadlines. Admission into the M.S. Program in Microbiology is competitive, with an applicant's college GPA, GRE Test scores, one-page essay, and letters of recommendation weighed in the decision to accept or decline. Applicants who are admitted into the program will enter as a Classified Graduate Student, as described below.

Admission to the Department of Biological Sciences as a Classified Graduate Student

The Department of Biological Sciences may admit as a Classified Graduate Student any applicant who:

1. has met all prerequisites,

2. has a complete application folder, and

3. has obtained acceptance by a faculty member to serve as her/his Thesis Advisor.

The Thesis Proposal

After admission to the Department as a Classified Graduate Student, the student in consultation with the Thesis Advisor, must prepare her/his Thesis Proposal and Program of Study, which includes all coursework to be taken. The Thesis Proposal must include a thorough review of relevant primary literature that demonstrates the context of the proposed research, it must clearly define the experiments proposed for the research to be undertaken, and should include preliminary data, if available. The student and her/his Thesis Advisor will select at least two additional members to serve on the Thesis Committee.

In most cases, the Thesis Advisor will serve as Chair of the Thesis Committee. However, if the Thesis Advisor is not eligible, another member of the Thesis Committee will serve as Thesis Committee Chair. The student will then have a formal meeting with the Thesis Committee, at which the student's Thesis Proposal and Program of Study will be presented and evaluated. At this meeting, the Thesis Committee will question the student about her/his Thesis Proposal. At the completion of this meeting, the Thesis Committee will meet briefly, without the student present, to evaluate the Thesis Proposal. Approval is based on whether the student has demonstrated a solid understanding of her/his thesis project. The Thesis Proposal must be prepared, presented to, and approved by the Thesis Committee before the end of the second semester after admission to the Department. Failure to meet this requirement will result in dismissal from the M.S. in Microbiology program. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

The Program of Study

The Program of Study must include completion of a minimum of 30 semester units. At least 21 of these units must be in the 500-600 level courses. If not taken previously, BIOL 371 or an upper division/graduate course in genetics, and BIOL 471 or an upper division/graduate course in cell physiology are required courses for your Program of Study. The rest of your required courses for
your Program of Study include: BIOL 580 (1 unit), BIOL 661 (two enrollments with different topics for a total of 4 units is required), or BIOL 661 and BIOL 663; BIOL 696A (3 units), BIOL 696B (3 units), BIOL 697 (maximum 3 units); and BIOL 698 (6 units). Other elective units included in the graduate program must be 400-600 level courses acceptable to the University and microbiology degree program, no more than nine may come from transfer credit. Up to 5 units of 300-level courses may be included with an approval from the Thesis Chair and Graduate Advisor. BIOL 696A will be taken during the student's initial fall semester; the course will cover experimental design, statistics, and literature research, and help students in preparing their Thesis Proposal. BIOL 696B will be taken during the first spring semester in the program, and will cover both oral and written scientific presentation. BIOL 696B is intended to facilitate manuscript and thesis writing and to help students learn to articulate their findings for their thesis defense.

Advancement to Candidacy

In addition to the general university requirements stated previously under Post-Baccalaureate and Graduate Degrees in this catalog, the student must complete the following steps before receiving Candidate status in the Department of Biological Sciences:
1. Admission to the Department of Biological Sciences’ Master’s Degree program as a Classified Graduate Student (see above);
2. Acceptance of the Thesis Proposal and Program of Study by the Thesis Committee;
3. Satisfactory academic progress;
4. Satisfactory fulfillment of the Graduate Writing Assessment Requirement (GWAR).

The Thesis Committee will recommend the student for advancement to candidacy by forwarding its recommendation to the department Graduate Advisor. This should occur at end of second semester after admission. Upon approval by the College’s Associate Dean or designee, the student will attain Master’s Candidate status.

Requirements for the Master of Science in Microbiology

In addition to the general University requirements stated previously in this catalog, the student must meet the following requirements before receiving the degree of Master of Science in Microbiology. The requirements are:
1. Advancement to Master’s Candidate status (see above);
2. Maintenance of a 3.00 ("B" average) or better, overall GPA (includes all upper-division and graduate level courses taken since admission to this University and after completion of the baccalaureate degree) and graduate program GPA. If either GPA falls below 3.00, it must be elevated to a 3.00 by the end of the following semester or the student will be dropped from the M.S. in Microbiology program;
3. Successful completion of the following: written thesis and public defense followed by a private defense with the Thesis Committee; and
4. Service as a Teaching Associate or Graduate Assistant. Under some circumstances, this requirement may be waived.

Requests to graduate must be received by Enrollment Services approximately 6 months in advance of the expected graduation date (check the Schedule of Classes for the date).

These degree requirements must be completed within 7 years from when the first course on the Program of Study was completed, including academic leaves, or the student's degree program will be terminated.

Single Subject Teaching Credential in Biology

For information, refer to the undergraduate section in this department.

Biology Courses (BIOL)

Students pursuing a major and/or a minor in this department may receive unit credit for courses marked with the symbol ‘##’ as a general elective but may not apply the units toward the specific or elective requirements for any degree or option in this department. Majors in this department may, however, take, for general education purposes, interdisciplinary courses offered by this department. All other courses in this department are open to majors and minors but by letter grade only (A-F).

LOWER DIVISION

100.## Biology of the Human Environment (3)
Prerequisite/Corequisite: One GE Foundation course. Biological perspective on the interaction between humans and their environment. Specifically designed for non-science majors.
(Lecture 3 hrs.)

101. Introduction to Human Disease (3)
Prerequisite/Corequisite: Course that fulfills the A.1 GE requirement. Introduction to the study of human disease including moral/ethical and economic issues.
(Lecture 3 hrs.) Not open for credit to students with credit in MICR 101.

153. Introduction to Marine Biology (3)
Prerequisites/Corequisites: Courses that fulfill the A.1 and B.2 GE requirements. Scientific approach to the study of marine organisms and their relationships to the environment. Emphasis on human interaction with marine ecosystems.
(Lecture 2 hrs., laboratory and field 3 hrs.) Field trips may be required outside of scheduled class time.

153L. Introduction to Marine Biology Laboratory (1)
Prerequisite: Open only to students who have successfully completed the equivalent of the lecture portion of BIOL 153 at another accredited institution and have consent of the Department of Biological Sciences. Identical to the laboratory portion of BIOL 153. Students enrolled in BIOL 153 will take it in the same room and at the same time as students enrolled in BIOL 153. Not open for credit to students with credit in BIOL 153. (Laboratory 3 hrs.)

200.## General Biology (4)
Prerequisite: GE Foundation requirements. Brief survey of major areas of biology including cell biology, genetics, evolution, phylogeny, plant and animal anatomy and physiology, ecology, and behavior. Specially designed for non-science majors.
Course fee may be required. (Lecture 3 hrs., laboratory 3 hrs.)
200L.## General Biology Laboratory (1)
Prerequisite: Open only to students who have successfully completed the equivalent of the lecture portion of BIOL 200 at another accredited institution and have consent of the Department of Biological Sciences.
BIOL 200L is identical to the laboratory component of BIOL 200. Students enrolled in BIOL 200L will take it in the same room and at the same time as students enrolled in BIOL 200.
Not open for credit to students with credit in BIOL 200. Course fee may be required. (Laboratory 3 hrs.)

201. General Microbiology for Health Professionals (4)
Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.
Microbiology for those planning careers in nursing, health care and education, and foods and nutrition. Introduction to microorganisms, including structure, function, metabolism, growth, genetics, diversity, and applied aspects. Special emphasis on human health.
Not open for credit to majors in the biological sciences. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required. Not open for credit to students with credit in MICR 200.

205.## Human Biology (4)
Prerequisites: GE Foundation requirements.
Brief survey of human biology focusing on anatomy, physiology, and development of cells, tissues, organs, and organ systems; including molecular biology, genetics, ecology, evolution, and diversity. Specially designed for non-science majors.
Course fee may be required. (Lecture 3 hrs., laboratory 3 hrs.)

205L.## Human Biology Laboratory (1)
Prerequisites: Open only to students who have successfully completed the equivalent of the lecture portion of BIOL 205 at another accredited institution and have consent of the Department of Biological Sciences. Identical to the laboratory portion of BIOL 205. Students enrolled in BIOL 205L will take it in the same room and at the same time as students enrolled in BIOL 205.
Not open for credit to students with credit in BIOL 205. Course fee may be required. (Laboratory 3 hrs.)

207.## Human Physiology (4)
Prerequisites: GE Foundation requirements.
General introduction to the functional integration of human body systems. Designed for majors in biomedical engineering, physical education, and the allied health fields.
(Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

208.## Human Anatomy (4)
Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.
Gross anatomy of humans from the cellular to the systemic levels. Intensive laboratory experience including the use of human cadavers. Designed for majors in kinesiology and the allied health fields. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

211. Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
Intended for natural science majors. First of three semester introductory sequence. Evolution as a process responsible for biological diversity at all levels: molecular, cellular, organismal, population, and community. Phylogenetic and taxonomic survey of life. Science as method of inquiry. Failure of either the lecture or the laboratory component will result in a failing grade for the entire course.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

211L. Introduction to Evolution and Diversity Laboratory (1)
Prerequisites: Open only to students who have successfully completed the equivalent of the lecture component of BIOL 211 at another accredited institution and have consent of the Department of Biological Sciences.
Phylogenetic and taxonomic survey of life emphasizing the principles of evolution and science as a method of inquiry. Identical to the laboratory component of BIOL 211. Students enrolled in BIOL 211L will take it in the same room and at the same time as students enrolled in BIOL 211. Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required.

212. Introduction to Cell and Molecular Biology (4)
Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
Prerequisite/Corequisite: CHEM 111B.
The second of a three semester introductory sequence. Introduction to macromolecular and cellular structure and function and to fundamental genetic principles. Failure of either the lecture or laboratory component will result in a failing grade for the entire course. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

212L. Introduction to Cell and Molecular Biology Laboratory (1)
Prerequisites: Open only to students who have successfully completed the equivalent of the lecture component of BIOL 212 at another institution and have consent of the Department of Biological Sciences.
Introduction to methods for studying macromolecular and cellular structure and function and fundamental genetic analyses. Identical to the laboratory component of BIOL 212. Students enrolled in BIOL 212L will take it in the same room and at the same time as students enrolled in BIOL 212.
Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required.

213. Introduction to Ecology and Physiology (4)
Prerequisites: BIOL 211, 212, CHEM 111B, each with a grade of "C" or better.
Introduction to the structure and function of organ systems across a variety of taxa, and the ecological interactions among organisms and their environment. Failure of either the lecture or the laboratory component will result in failing grade for the entire course.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

213L. Introduction to Ecology and Physiology Laboratory (1)
Prerequisites: Open only to students who have successfully completed the equivalent of the lecture component of BIOL 213 at another institution and have consent of the Department of Biological Sciences.
Introduction to methods for studying plant and animal structure and function and the interactions among organisms and their environments. Identical to the laboratory component of BIOL 213. Students enrolled in BIOL 213L will take it in the same room and at the same time as students enrolled in BIOL 213.
Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required.

260. Biostatistics (3)
Prerequisites: BIOL 201 or BIOL 211 or BIOL 207 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.
Probability and statistics used in the description and analysis of biological data.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.
296. Introduction to Undergraduate Directed Research (1)
Prerequisite: Consent of instructor.
Introduction to research in biology approved and directed by a faculty member in the Department of Biological Sciences.
Designed primarily to introduce lower division students to research before taking BIOL 496.
Credit/No Credit only. May be repeated to a maximum of 3 units in different semesters. Same course as MICR 296. Not open for credit to students with credit in MICR 296. Students who have completed one or more units of BIOL/MICR 496 may not enroll in this course. (Conference 1 hr., laboratory 3 hrs.)

UPPER DIVISION

300. Human Immunology: In Self-Defense (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing; one laboratory course in a life science. Introductory psychology and a laboratory course in a physical science recommended.
Mechanisms and cells responsible for protecting human body from disease. Normal functions of immune system, diseases involving immune system, and psychological, endocrine, and age factors affecting immune system included. Impact of immunology or organ transplantation, immunotherapy, and biotechnology discussed.
Not applicable for credit toward the major in Microbiology. (Lecture 3 hrs.) Not open for credit to students with credit in MICR 300.

301.## Biology of Human Aging (3)
Prerequisites: BIOL 200 or BIOL 205 or BIOL 207 all with a grade of "C" or better.
Biological processes associated with aging in humans. Emphasis on both cellular and organ aging.
Specifically designed for the gerontology program. Not open to students with "C" or better in BIOL 401. (Lecture 3 hrs.)

304.## Pathophysiology (3)
Prerequisites: BIOL 201 or MICR 200, BIOL 207, BIOL 208; CHEM 140 all with a grade of "C" or better.
Pathogenesis and pathophysiology of common disorders of human nervous, musculoskeletal, endocrine, cardiovascular, respiratory, excretory, digestive, and reproductive systems with emphasis on the physiological basis of the disease process and clinical correlations.
Not designed for majors in the College of Natural Sciences and Mathematics. Priority registration given to students who have been accepted into CSULB nursing programs. (Lecture 3 hrs.)

305.## Pharmacology (2)
Prerequisite/Corequisite: BIOL 304, with a grade of "C" or better.
Systematic study of drugs, their classification, methods and routes of administration, therapeutic and toxic effects with emphasis on nursing implications.
Not designed for majors in the College of Natural Sciences and Mathematics. Not open for credit to students with a "C" or better in BIOL 204. Priority registration given to students who have been accepted into CSULB nursing programs. (Lecture 2 hrs.)

311. General Microbiology (4)
Prerequisites: BIOL 211, BIOL 212; CHEM 111B, all with a grade of "C" or better.
Introduction to biology of microorganisms, including structure, function, metabolism, growth, genetics, diversity, host-parasite relationships, and applied aspects.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required. Not open for credit to students with credit in MICR 211.

312. Evolutionary Biology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with a grade of "C" or better.
Survey of evolutionary biology including population genetics, speciation, origin of life, and phylogenetic analysis. Main emphasis is evolutionary mechanisms and methods of analysis on specific of the evolutionary history of life.
Letter grade only (A-F). (Lecture 3 hrs.)

313. Invertebrate Zoology (4)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor.
Systematics, morphology, and natural history of invertebrate animals, with emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.; weekend field trips may be required.) Course fee may be required.

316. General Entomology (4)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
Characteristics, structure, habits, and life cycles of insects; importance of insects to humans and other organisms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

320. Bacterial Pathogenesis (3)
Prerequisite: BIOL 311 or MICR 211 with a grade of "C" or better. Recommended: BIOL 320L.
Nature of host-pathogen interactions in health and disease. Emphasis upon pathogenic bacteria of humans and animals; topics include bacterial ultrastructure, epidemiology, and mechanisms of pathogenesis, host defense mechanisms, and antibiotic therapy.
Letter grade only (A-F). (Lecture 3 hrs). Not open for credit to students with credit in MICR 320.

320L. Bacterial Pathogenesis Laboratory (2)
Prerequisite: BIOL 311 or MICR 211 or BIOL 212, with a grade of "C" or better. Not open for credit to students with credit in MICR 320L.
Diagnosis of bacterial infections and experimental examination of bacterial pathogenic mechanisms and host defenses using classical and modern techniques including immunofluorescence microscopy, enzyme immunoassay, flow cytometry, mammalian cell culture, phagocytosis, and phagocytic killing assay.
Letter grade only (A-F). (Laboratory 6 hrs) Course fee may be required.

322. Medical Mycology/Parasitology (4)
Prerequisites: BIOL 211, BIOL 212; BIOL 320 or MICR 320, all with a grade of "C" or better.
Survey of parasitic protozoa, helminthes, and fungi of humans; emphasis on identification of fresh and preserved specimens, pathogenesis, host-parasite interactions, epidemiology, prevention, and control.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required. Not open for credit to students with credit in MICR 322.

324. Vertebrate Zoology (4)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
Phylogenetic survey of vertebrates (craniates). Lecture concentrates on origin and radiation of vertebrates and their functional morphology. Laboratory concentrates on skeletal and internal anatomy and taxonomy to the ordinal and familial level of living vertebrates.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.
325. Emerging Infectious Diseases (3)
Prerequisites: BIOL 311 or MICR 211 with a grade of "C" or better and consent of instructor.
Explores changes in technology, infectious disease organisms and other factors contributing to emerging and re-emerging infectious diseases, including immunodeficiency, antibiotic and insecticide abuses, climate change, travel and commerce, human demographic and behavioral changes, land use, and breakdown of public health.
Letter grade only (A-F). Not open for credit to students with credit in MICR 325.

340. Molecular Cell Biology (3)
Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.
Detailed study of the organization and functioning of cells and cellular organelles at the molecular level; emphasis on experimental approaches and structural/functional relationships.
Letter grade only (A-F). (Lecture 3 hrs.)

341. Physiology for Therapists I (4)
Prerequisites: BIOL 211, BIOL 212, BIOL 213; CHEM 111A,B; PHYS 100A,B all with grade of "C" or better; 100 hours of documented exposure to the practice of physical therapy in a variety of settings; and consent of instructor.
Mechanisms of action and interaction of physiological systems with emphasis on nervous and endocrine systems and skeletal and smooth muscle. Pathological and clinical considerations presented.
Letter grade only (A-F). (Lecture 3 hrs.)

342. Human/Mammalian Physiology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
Function of various mammalian body systems, primarily of humans. Emphasis on integration of homeostatic mechanisms of nervous, muscular, endocrine, cardiovascular, respiratory, renal, digestive, and reproductive systems.
Letter grade only (A-F). (Lecture 3 hrs.). Not open for credit to students with credit in BIOL 345.

342L. Laboratory in Human/Mammalian Physiology (1)
Prerequisite/Corequisite: BIOL 342 with a grade of "C" or better. Experiments and exercises designed to provide experience in, and illustration of, physiological principles and mechanisms of interaction among various body systems.
Letter grade only (A-F). Course fee may be required. (Laboratory 3 hrs.)

345. Comparative Animal Physiology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with grade of "C" or better.
Comparison of fundamental physiological processes of major animal phyla.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in BIOL 342.

345L. Laboratory in Comparative Animal Physiology (1)
Prerequisite/Corequisite: BIOL 345 with a grade of "C" or better. Laboratory course acquaints students with direct observation and measurement of physiological processes in various animal groups, both invertebrate and vertebrate.
Letter grade only (A-F). Course fee may be required. (Laboratory 3 hrs.) Not open for credit to students with credit in BIOL 342L.

350. General Ecology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.
Relationships of plants and animals to their physical and biological environment; structure and function of populations, communities and ecosystems.
Letter grade only (A-F). (Lecture 3 hrs.)

353. Marine Biology (3)
Prerequisites: BIOL 153, BIOL 211, BIOL 212, BIOL 213, BIOL 260 all with grade of "C" or better.
Study of pelagic and benthic marine ecosystems, including food resources, mariculture, and pollution. Weekend field trips may be required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

355. Microbial Ecology (3)
Prerequisites: BIOL 311 or MICR 211, or BIOL 211, BIOL 212, BIOL 213; BIOL 260, all with a grade of "C" or better.
Explores relationships of microorganisms to their environment. Emphasis placed on ecological basis for diversity of prokaryotic forms, metabolic functions and community interactions.
Letter grade only (A-F). Not open for credit to student with credit in MICR 355L. (Lecture 3 hrs.)

355L. Microbial Ecology Laboratory (2)
Prerequisite/Corequisite: BIOL 355 or MICR 355.
Provides an understanding of microbes in the environment. Sample and analyze microbes from field trips to different habitats. Analytical techniques learned include enrichment culture methods and modern molecular biology methods to study the diversity and community dynamics of microbes.
Letter grade only (A-F). Course fee may be required. Not open for credit to student with credit in MICR 355L. (Laboratory 6 hrs.)

370. General Genetics (4)
Prerequisites: BIOL 211, BIOL 212 and either BIOL 260 or CHEM 251 all with a grade of "C" or better.
Detailed study of classical transmission genetics and introduction to modern molecular genetics. Includes current observations and concepts of nature, organization, function, and regulation of genetic expression.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

371. Microbial Genetics (3)
Prerequisite: BIOL 311 or MICR 211 with a grade of "C" or better.
Genetic analysis of biological processes in microbes. Includes gene structure, regulation, and function; isolation/analysis of mutations in haploid/diploid organisms; gene function from mutants; genetic exchange; regulation of host-pathogen interactions; bacteriophages; cloned genes; and genomics.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MICR 371.

372. Methods in Microbial Genetics (2)
Prerequisite: BIOL 311 or MICR 211 with a grade of "C" or better. Recommended: BIOL 371.
Laboratory study of microbial genetics, using classical (non-molecular) and contemporary (molecular) approaches. Includes genetic engineering techniques; microbial genomics. Not open for credit to students with credit in MICR 451. Letter grade only (A-F). (Laboratory 6 hrs.) Course fee may be required. Not open for credit to students with credit in MICR 372.
411./511. Marine Mammalogy (3)
Prerequisites: BIOL 345, BIOL 350, and BIOL 353, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 411; graduates enroll in BIOL 511.)
Fundamental biological, ecological, and physiological concepts of marine mammals, including cetaceans, pinnipeds, walruses, sirenians, and polar bears. Information concerning taxonomy, distribution, morphology, physiology, reproduction, and feeding through readings and scientific literature.
Fieldtrips may include weekends and spring recess. Letter grade only (A-F). (Lecture 2 hrs., laboratory and fieldtrips 3 hrs.)

412. Advanced Evolutionary Biology (3)
Prerequisite: BIOL 312 with a grade of "C" or better.
A Writing Intensive Capstone. An advanced survey of topics in evolutionary biology including population and quantitative genetics, allometry, game theory, evolutionary psychology, and evolutionary-developmental biology. Main emphasis on the development of conceptual and mathematical models. Weekly writing assignments and editing.
Letter grade only (A-F). (Lecture 3 hrs.)

415./515. Marine Microbiology (3)
Prerequisite: BIOL 353 or MICR 355 or BIOL 355 with a grade of "C" or better. (Undergraduates enroll in BIOL 415; graduates enroll in BIOL 515.)
Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.
Letter grade only (A-F). Not open for credit to students with credit in MICR 415. Course fee may be required. (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)

416./516. Virology (3)
Prerequisite: BIOL 320 or MICR 320 or BIOL 340 with a grade of "C" or better. (Undergraduates enroll in BIOL 416; graduates enroll in BIOL 516.)
Virology at molecular level including viral replication and molecular basis for viral pathogenesis; survey of human, animal, and plant viral diseases. Current trends for prevention and treatment of viral diseases.
Letter grade only (A-F). Not open for credit to students with credit in MICR 416. (Lecture 3 hrs.)

419. Ichthyology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and at least 6 additional units of upper division biological science, all with a grade of "C" or better.
Recommended: BIOL 350, BIOL 353, and BIOL 370.
Systematics, morphology, genetics, and ecology of fishes. Emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., weekend field trips may be required.) Course fee may be required.

420./520. Fisheries Ecology and Conservation (3)
Prerequisites: BIOL 260, BIOL 350, 353, and 419, all with grade of "C" or better. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.)
Advanced aspects of fish and invertebrate biology and behavior; fisheries economics and conservation; emphasis on state-of-art field/laboratory techniques and contemporary concepts and their application in fishery management.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

421. Herpetology (3)
Prerequisites: BIOL 260, BIOL 350, and one additional upper division biology course, all with a grade of "C" or better. Recommended: BIOL 312, BIOL 324, or BIOL 370.
Taxonomy, natural history, ecology and distribution of amphibians and reptiles, emphasis on local forms. Weekend field trip required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

423. Mammalogy (3)
Prerequisites: At least one of BIOL 312, BIOL 324, or BIOL 350, with a grade of "C" or better.
Explores the biology and diversity of the world's living mammals. Lecture emphasizes radiation of orders; their morphology, physiology, evolutionary history, ecology and behavior. Laboratory emphasizes external and skeletal morphology of these same taxa, identification of California species, and a focus on techniques in mammalogy.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

424./524. Ornithology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and three units of upper division BIOL, all with a grade of "C" or better. Recommended: BIOL 350. (Undergraduates enroll in BIOL 424; graduates enroll in BIOL 524.)
Ecology, morphology, physiology, behavior, and taxonomy of birds from an evolutionary perspective, also factors influencing recent increase in their extinction risk. Species identification techniques (emphasis on the local avifauna) and methods of surveying avian populations.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.) Course fee may be required.

425. Phycology (4)
Prerequisite: BIOL 353 with a grade of "C" or better.
Taxonomy, phycology, and physiology of algae, including the physiological ecology of marine macroalgae; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 3 hrs., laboratory and field 3 hrs.)

427. Vascular Plant Systematics (4)
Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better.
Principles and methods of plant systematics, including phylogenetics, different types of systematic data, evolutionary history and diversification of vascular plants. Laboratory emphasizes retrieving and analyzing systematic data, using phylogenetic methods, and identifying vascular plants of Southern California.
Letter grade only (A-F). Course fee may be required. (Lecture 2 hrs., laboratory and field 6 hrs.)

429./529. Epidemiology of Infectious Diseases (3)
Prerequisites: BIOL 260; BIOL 320 or MICR 320, BIOL 322 or MICR 322; all of a grade of "C" or better. (Undergraduates enroll in BIOL 429; graduates enroll in BIOL 529.)
Principles of epidemiology and application to health; fundamentals of biomedical statistics; basic factors in classic epidemiological studies and prevention and control of infectious diseases.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MICR 429.

430. Immunology (3)
Prerequisite: BIOL 340 with a grade of "C" or better.
Study of cellular and molecular components of immune system, including how immune system recognizes pathogens, how it functions in various types of immune responses, mechanisms of vaccines, immunodeficiencies, transplantation, allergy, and autoimmunity.
Letter grade only (A-F). Not open for credit to students with credit in MICR 430. (Lecture 3 hrs.)
431/531. Biology of Cancer (3)
Prerequisites: BIOL 340, BIOL 370 with a grade of "C" or better. (Undergraduates enroll in BIOL 431; graduates enroll in BIOL 531.) Examination of cancer, tumor progression, and treatment at the cellular, molecular, and genetic levels. Letter grade only (A-F). (Lecture 3 hrs.)

432/532. Stem Cell Biology (3)
Prerequisites: BIOL 340 and 370 with a grade of "C" or better. (Undergraduates enroll in BIOL 432; graduates enroll in BIOL 532.) Current literature on advances in stem cell research, translational research, and clinical applications of stem cells to alleviate human disease. Letter grade only (A-F). (Lecture 3 hrs.)

432L/.532L. Advanced Stem Cell Laboratory (4)
Prerequisites: BIOL 432/532, BIOL 440L, BIOL 462/562, BIOL 473/573, BIOL 477/577, all with a grade of "C" or better, and consent of the director of the CSULB Biotechnology Certificate Program. (Undergraduates enroll in BIOL 432L; graduates enroll in BIOL 532L.) Intensive laboratory, offered during a 6-week summer session. Students learn basic and advanced stem cell culture techniques. The sixth week is 40 hours at the Children’s Hospital of Orange County Research Institute (CHOC). Letter grade only (A-F). (Lecture 1 hr., laboratory 9 hrs.)

433/533. Developmental Biology (3)
Prerequisites: BIOL 340 or BIOL 370 or MICR 371, both with a grade of "C" or better. (Undergraduates enroll in BIOL 433; graduates enroll in BIOL 533.) Experimental approaches to development in model organisms, mostly animal, at the molecular, genetic, cellular, and tissue levels. Topics include gametogenesis, fertilization, early cleavage, gastrulation, pattern formation, and organogenesis. Letter grade only (A-F). (Lecture/discussion 3 hrs.)

434/534. Hematology (4)
Prerequisite: BIOL 340 with a grade of "C" or better. (Undergraduates enroll in BIOL 434; graduates enroll in BIOL 534.) Study of blood and coagulation system. Normal cell structure and function and physiological and morphological changes in inflammation, leukemias, and anemias discussed. Clinical, diagnostic, and research techniques for observing blood and pathologic case-studies included. Useful for students interested in medical professions. Required for clinical laboratory science (medical technology) internship. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required. Not open for credit to students with credit in MICR 423.

439. Plant Morphology (4)
Prerequisite: BIOL 312 or BIOL 370 with a grade of "C" or better. A phylogenetic survey of green plant morphological diversity and analysis of the developmental and genetic mechanisms affecting this diversity. Emphasis in the laboratory is on documenting green plant morphological evolution, bioinformatics, and studying the developmental mechanisms driving morphological diversification. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

440L. Molecular Cell Biology Laboratory (3)
Prerequisites: BIOL 340, BIOL 370, both with a grade of "C" or better. Intensive course of modern laboratory techniques used in both cell and molecular biology. Topics include tissue culture, genomics, bioinformatics, proteomics, microscopy, and/or purification and functional characterization of recombinant proteins. Provides extensive laboratory experience for students. Letter grade only (A-F). (Lecture 1 hr., laboratory 6 hrs.) Course fee may be required. Not open for credit to students with credit in BIOL 340L.

441. Physiology for Therapists II (3)
Prerequisite: BIOL 341 with a grade of "C" or better. Mechanisms of action and interaction of physiological body systems with emphasis on cardiovascular, renal, and respiratory systems. Pathological and clinical considerations will be presented. Letter grade only (A-F). (Lecture 3 hrs.)

442/542. Physiology at the Limit (3)
Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better. (Undergraduates enroll in BIOL 442; graduates enroll in BIOL 542.) Survey of biochemical and physiological adaptations of organisms under extreme environmental conditions or performance. Topics include adaptive responses to hypoxia, high-altitude, deep-sea diving, outer space, micro-gravity, exercise, flight, swimming, salt stress, and extreme temperatures. Examples from vertebrates and invertebrates. Letter grade only (A-F). (Lecture 3 hrs.)

443/543. Endocrinology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.) Role of endocrines in vertebrate and invertebrate adjustment to changes in internal and external environment. Letter grade only (A-F). (Lecture 3 hrs.)

444/544. Reproductive Biology (3)
Prerequisite: BIOL 342 or BIOL 345 with a grade of "C" or better. (Undergraduates enroll in BIOL 444; graduates enroll in BIOL 544.) Topics in comparative reproductive biology from molecular, cellular, organismal, and population levels. Hormones and reproduction, gamete/gonad biology, reproductive lifespan, mating system/strategies, environmental influence on reproductive capabilities, contraception/in vitro fertilization. Scientific communication discussed including scientific articles and scientific writing. Letter grade only (A-F). (Lecture 3 hrs.)

445/545. Metabolic Regulation (3)
Prerequisites: BIOL 340, BIOL 342 or BIOL 345; CHEM 441A with grade of "C" or better. (Undergraduates enroll in BIOL 445; graduates enroll in BIOL 545.) Study of molecular mechanisms by which intermediary metabolism is regulated in various mammalian tissues with emphasis on mechanisms of hormone action and regulation of some key enzymes of carbohydrate, fat, and protein metabolism. Letter grade only (A-F). (Lecture 3 hrs.)

447. Molecular Plant Physiology (3)
Prerequisites: BIOL 340, BIOL 370, both with grade of "C" or better. A Writing Intensive Capstone. Molecular approaches to classical topics including water relations, plant development and photosynthesis. Weekly writing assignments and editing. Letter grade only (A-F). (Lecture 3 hrs.)

448/548. Principles of Neurobiology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.) Study of the principles of anatomy, physiology, and function of the nervous system. Topics covered include neuroanatomy, physiology of neuronal signaling (excitable membranes and action potentials), synaptic transmission, neurotransmitters and their receptors, pain processing, special senses, reflexes, and neural circuits. Letter grade only (A-F). (Lecture 3 hrs.)
449./549. Fish Physiology and Endocrinology (3)
Prerequisite: BIOL 345 with grade of "C" or better. (Undergraduates enroll in BIOL 449; graduates enroll in BIOL 549.)
Fundamentals of physiological systems and strategies in fishes, with emphasis on endocrine regulatory mechanisms. Adaptations in endocrine physiology of fishes considered from evolutionary and ecological perspectives. Impacts of human activities, particularly in context of Southern California's marine environment addressed.
Letter grade only (A-F). (Lecture 3 hrs.)

450./550. Plant Ecology (3)
Prerequisites: BIOL 260, BIOL 350 with a grade of "C" or better. Recommended: BIOL 427, BIOL 447. (Undergraduates enroll in BIOL 450; graduates enroll in BIOL 550.)
Relationship of plants to their environment and principles of plant distribution.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)
Course fee may be required.

451./551. Wetlands and Mangrove Ecology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. A comprehensive look at wetland ecology and management. Focuses on physical, biogeochemical, and ecological aspects of major wetland ecosystems with an emphasis on local urban wetlands. Also includes wetland management concepts and approaches worldwide.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

452./552. Behavioral Ecology (3)
Prerequisites: BIOL 312 or BIOL 350. (Undergraduates enroll in BIOL 452; graduates enroll in BIOL 552.)
Primary objectives are to understand how animal behavior affects survival and reproduction and introduce students to current methodologies to study behavior of animals in lab and field conditions. Emphasizes ecological and evolutionary consequences of behavior across taxa.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

454A./554A. Research in Tropical Marine Ecology (3)
Prerequisites: BIOL 350, BIOL 353, and one 400-level marine biology major course, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 454A; graduates enroll in BIOL 554A.)
Field and laboratory studies, lectures, and individual research on tropical marine biological problems. Designed to engage students in experimental research, including: recognizing a problem, designing and carrying out a project, statistical data analysis, and oral and written report presentation.
Eight-day field trip to Hawaii required during spring recess at student expense. Letter grade only (A-F). Course fee may be required. (Lecture 2 hrs., 8 day field trip.)

454B./554B. Research in Tropical Terrestrial Ecology (3)
Prerequisites: BIOL 350 with a grade of "C" or better; and consent of instructor. (Undergraduates enroll in BIOL 454B; graduates enroll in BIOL 554B.)
Field-based comparison of tropical lowland deciduous forest and lowland rainforest incorporating basic ecology methodology. Forest structure and diversity of animals emphasized. Students maintain field notebook, submit final paper, and give oral presentation.
Nine-day fieldtrip to Costa Rica required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). Course fee may be required. (Lecture 2 hr., 9 day field trip.)

455./555. Ecology of Marine Communities (3)
Prerequisites: BIOL 260, BIOL 350, BIOL 353 all with a grade of "C" or better. (Undergraduates enroll in BIOL 455; graduates enroll in BIOL 555.)
Field studies on ecological principles related to marine communities discussed. Includes individual field research project and two class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 3 hrs.)

456./556. Population Ecology (3)
Prerequisites: BIOL 350, MATH 119B or MATH 123 all with a grade of "C" or better. (Undergraduates enroll in BIOL 456; graduates in BIOL 556.)
Analysis of animal and plant populations characteristics: population growth and regulation, fluctuation and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; spatial patterns.
Letter grade only (A-F). (Lecture 3 hrs.)

457./557. Field Methods in Ecology (3)
Prerequisites: BIOL 260, BIOL 350 both all with a grade of "C" or better. (Undergraduates enroll in BIOL 457; graduates in BIOL 557.)
Design of field research projects, collection, and data analysis, report writings and presentations. Field sampling techniques emphasized. Five weekend fieldtrips required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

459./559. Conservation Biology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. Recommended: BIOL 370. (Undergraduates enroll in BIOL 459; graduates enroll in BIOL 559.)
Conservation biology concepts including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, biological diversity patterns, habitat fragmentation, reserve design, and landscape-level conservation. Lecture includes group discussions of case studies and relevant primary literature.
Letter grade only (A-F). (Lecture 3 hrs.) 20 hrs. per semester service learning for undergraduates, extra research paper for graduates.

462./562. Bioethics and Public Policy (3)
Prerequisite: BIOL 340 with a grade of "C" or better. (Undergraduates enroll in BIOL 462; graduates enroll in BIOL 562.)
History of bioethics, scientific and medical bases of key bioethical issues, current legislation and appropriations, including legal, social, and ethical implications of stem cell research and other biotechnological advances.
Letter grade only (A-F). (Lecture 3 hrs.)

463./563. Computer Modeling in Biology (4)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. (Undergraduates enroll in BIOL 463; graduates enroll in BIOL 563.)
History, modeling theory, different modeling approaches, theoretical, empirical and quantitative modeling. Laboratory uses modeling software and focuses on model construction and quantitative simulation. Applicable to ecology, microbiology, physiology, environmental sciences, etc.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

464./564. Aquatic Toxicology (3)
Prerequisite: BIOL 211, BIOL 212, BIOL 213, BIOL 340; CHEM 220A or CHEM 227, all with a grade of "C" or better. Recommended: BIOL 353 and CHEM 448 or 441A.B. (Undergraduates enroll in BIOL 464; graduates enroll in BIOL 564.)
In depth study of interactions between anthropogenic chemicals and aquatic ecosystems, including origin, fate, chemical and biological detection, and quantification of pollutants and impact at molecular, biochemical, cellular, physiological, organismal, and community levels of organization. Individual research project required.
Letter grade only (A-F). (Lecture 3 hrs.)
465./565. Experimental Design and Regression Analysis (4)
Prerequisites: BIOL 260; MATH 119B or MATH 123; 6 units of upper division biological science all with a grade of "C" or better. (Undergraduates enroll in BIOL 465; graduates enroll in BIOL 565.) Experimental design and data analysis techniques applied to problems in biology including analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Experience in analyzing biological data using computerized statistical packages. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

466. Research Design and Methods (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, either BIOL 260 or CHEM 251, CHEM 220A,B and CHEM 223A,B all with a grade of "C" or better; GE Foundation requirements; a GPA of at least 3.0 in the major; and consent of the instructor. At least one unit of BIOL 496 or CHEM 496. Corequisites: At least one unit of BIOL 496 or CHEM 496. Introduction to hypothesis testing, experimental design, methodological and technical procedures for experimentation, grant writing, and techniques for written and oral presentation of research results. Research paper and oral presentation required. Letter grade only (A-F). Same course as CHEM 466. Not open for credit to students with credit in BIOL 466H or CHEM 466H. (Lecture 3 hours).

467./567. Multivariate Data Analysis (4)
Prerequisites: BIOL 260; MATH 119B or MATH 123; 6 units of upper division biological science; all with a grade of "C" or better. (Undergraduates enroll in BIOL 467; graduates enroll in BIOL 567.) Multivariate data analysis techniques applied to biological data. Applied matrix algebra for analyzing and understanding multivariate analysis. Includes principal components analysis, factor analysis, discriminant analysis, cluster analysis and current modern phylogenetic analysis techniques. Analyzing multivariate biological data using computerized statistical packages. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

471./571. Bacterial Physiology (3) S
Prerequisites: BIOL 320 or MICR 320, CHEM 441A or CHEM 448; both with a grade of "C" or better. (Undergraduates enroll in BIOL 471; graduates enroll in BIOL 571.) Cellular physiology at molecular level as related to bacterial growth, reproduction, nutrition, metabolism, and ecology. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MICR 471.

472./572. Molecular Evolution (3)
Prerequisite: BIOL 370 with a grade of "C" or better. Recommended: BIOL 312. (Undergraduates enroll in BIOL 472; graduates enroll in BIOL 572.) Survey of molecular evolution including but not limited to the history of the field, protein and DNA evolution, neutral and nearly-neutral theory, molecular phylogenetics, molecular population genetics and DNA fingerprinting, genomics, and proteomics. Applicable to ecological, evolutionary, medical, forensic sciences. Letter grade only (A-F). (Lecture 3 hrs.)

473./573. Molecular Genetics (3)
Prerequisites: BIOL 370 or BIOL 371 or MICR 371; CHEM 220A,B and CHEM 223A,B, or CHEM 227, all with a grade of "C" or better. (Undergraduates enroll in BIOL 473; graduates enroll in BIOL 573.) Contemporary molecular genetic analysis of model organisms (mouse, worm, flies, yeasts) used in study of human disease, basic biological processes, gene regulation, and global analysis of genomes and proteomes. Letter grade only (A-F). (Lecture 3 hrs.)

474./574. Bioinformatics (3)
Prerequisites: BIOL 260; BIOL 370 or BIOL 371 or MICR 371, all with a grade of "C" or better. (Undergraduates enroll in BIOL 474; graduates enroll in BIOL 574.) Survey of biological sequences and prokaryotic genomes. Investigation of DNA, RNA, and protein sequences using statistics and computer science techniques. Computer-based laboratory will familiarize students with bioinformatics tools and programming. Letter grade only (A-F). (Lectures 2 hrs., laboratory 3 hrs.)

477./577. Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)
Prerequisite: BIOL 340 or BIOL 370 or CHEM 441A,B; all with a grade of "C" or better. (Undergraduates enroll in BIOL 477; graduates enroll in BIOL 577.) Theory and techniques for isolating, amplifying, and analyzing genes, genomes, transcripts, and proteins. Data-mining, the use of computers in experimental design and/or functional analysis, use of microarrays, and future of nanotechnology. Letter grade only (A-F). Not open for credit to students with credit in MICR 477./577. (Lecture 3 hrs., activity 2 hrs.)

480./580. Seminars (1)
Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580.) Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate. Weekly meetings with professional biologists presenting results of their research. Requires participation in organization and critical evaluation of these presentations. (Seminar 1 hr.) Letter grade only (A-F). May not be repeated for credit towards any single degree.

490./590. Selected Topics in Biology (1-3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490; graduates enroll in BIOL 590.) Topics from selected areas of biology. Course content varies from section to section. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Lecture 1-3 hrs.)

490L./590L. Selected Topics in Biology, Laboratory (1-2)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490L; graduates enroll in BIOL 590L.) Topics from selected areas of biology. Course content varies from section to section. Letter grade only (A-F). May be repeated to a maximum of 4 units with different topics. Topics announced in the Schedule of Classes. (Laboratory 3 or 6 hrs.)

492A./592A. Stem Cell Research Internship (12)
Prerequisites: BIOL 432/532, BIOL 432L/532L, BIOL 440L, BIOL 462/562, BIOL 473/573, BIOL 477/577, all with a grade of "C" or better, and permission of the director of the CSULB Biotechnology Certificate Program, and acceptance in the Stem Cell Training Option within the Biotechnology Certificate. (Undergraduates enroll in BIOL 492A; graduates enroll in BIOL 592A.) CIRM-approved institutions train interns in their stem cell research laboratories. Must be repeated once for credit. Credit/No Credit grading only. (Laboratory 36 hrs.)
495. Instruction in Laboratory Teaching (1-2)
Prerequisites: Consent of instructor, an "A" in the course in which the student elects to do BIOL 495 (another course with laboratory may be substituted with consent of instructor), and an overall GPA of at least 3.0.
Individual instruction in organization and techniques of teaching a biological sciences laboratory.
May be repeated to a maximum of 2 units in different semesters. Any units beyond the two taken for a letter grade in BIOL 495 or MICR 495 or any combination of the two will be taken credit/no credit.
Not open for credit to students with credit in MICR 495. (Conference 1 hr., laboratory 3 hrs. per unit.)

496. Undergraduate Directed Research (1-3)
Prerequisites: BIOL 211, 212, one of BIOL 213, BIOL 296, BIOL 311, MICR 211 or MICR 296; consent of instructor; and consent of appropriate undergraduate advisor.
Research in a specific topic in biological sciences approved and directed by a faculty member in Department of Biological Sciences.
May be repeated for a letter grade and degree credit to a maximum of three units for any single degree or option. Units beyond the three taken for a letter grade in MICR 496 or BIOL 496, or any combination of the two, will be taken credit/no credit.
Not open for credit to student with credit in MICR 496. Students may only have a total of 3 units of BIOL 496 and MICR 496 combined. Not available to graduate students.

GRADUATE LEVEL

511./411. Marine Mammalogy (3)
Prerequisites: BIOL 345, BIOL 350, and BIOL 353, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 411; graduates enroll in BIOL 511.)
Fundamental biological, ecological, and physiological concepts of marine mammals, including cetaceans, pinnipeds, walruses, sirenians, and polar bears. Information concerning taxonomy, distribution, morphology, physiology, reproduction, and feeding through readings and scientific literature. Fieldtrips may include weekends and spring recess.
Letter grade only (A-F). (Lecture 2 hrs., lab and fieldtrips 3 hrs.)

515./415. Marine Microbiology (3)
Prerequisites: BIOL 353 or MICR 355 or BIOL 355 with a grade of "C" or better. (Undergraduates enroll in BIOL 415; graduates enroll in BIOL 515.)
Designed to familiarize microbiology and marine biology students with the role of microorganisms in the marine environment. Topics will include ecology, physiology, biogeochemistry and diversity of marine microbes. Laboratory/field component will emphasize examination and cultivation of local marine microbes.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in MICR 415 or 515. (Lecture 2 hrs., laboratory and field 3 hrs., weekend field trip may be required.)

516./416. Virology (3)
Prerequisites: BIOL 320 or MICR 320 or BIOL 340 with a grade of "C" or better. (Undergraduates enroll in BIOL 416; graduates enroll in BIOL 516.)
Virology at molecular level including viral replication and molecular basis for viral pathogenesis; survey of human, animal, and plant viral diseases. Current trends for prevention and treatment of viral diseases.
Letter grade only (A-F). Not open for credit to students with credit in MICR 416 or 516. (Lecture 3 hrs.)

520./420. Fisheries Ecology and Conservation (3)
Prerequisites: BIOL 260, BIOL 350, BIOL 353, and BIOL 419, all with grade of "C" or better. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.)
Advanced aspects of fish and invertebrate biology and behavior; fisheries economics and conservation; emphasis on state-of-art field/laboratory techniques and contemporary concepts and their application in fishery management.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

524./424. Ornithology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260 and 3 units of upper division BIOL, all with a grade of "C" or better. Recommended: BIOL 350. (Undergraduates enroll in BIOL 424; graduates enroll in BIOL 524.)
Ecology, morphology, physiology, behavior, and taxonomy of birds from an evolutionary perspective, also factors influencing recent increase in their extinction risk. Species identification techniques (emphasis on the local avifauna) and methods of surveying avian populations.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.) Course fee may be required.

529./429. Epidemiology of Infectious Diseases (3)
Prerequisites: BIOL 260; BIOL 320 or MICR 320, BIOL 322 or MICR 322; all of a grade of "C" or better. (Undergraduates enroll in BIOL 429; graduates enroll in BIOL 529.)
Principles of epidemiology and application to health; fundamentals of biomedical statistics; basic factors in classic epidemiological studies and prevention and control of infectious diseases.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MICR 529.

531./431. Biology of Cancer (3)
Prerequisites: BIOL 340, BIOL 370 with a grade of "C" or better. (Undergraduates enroll in BIOL 431, graduates enroll in BIOL 531.)
An examination of cancer, tumor progression, and treatment at the cellular, molecular, and genetic levels.
Letter grade only (A-F). (Lecture 3 hrs.)

532./432. Stem Cell Biology (3)
Prerequisites: BIOL 340 and 370 with a grade of "C" or better. (Undergraduates enroll in BIOL 432; graduates enroll in BIOL 532.)
Current literature on advances in stem cell research, translational research, and clinical applications of stem cells to alleviate human disease.
Letter grade only (A-F). (Lecture 3 hrs.)

532L./432L. Advanced Stem Cell Laboratory (4)
Prerequisites: BIOL 432/532, BIOL 440L, BIOL 462/562, BIOL 473/573, BIOL 477/577, all with a grade of "C" or better, and permission of the director of the CSULB Biotechnology Certificate Program. (Undergraduates enroll in BIOL 432L; graduates enroll in BIOL 532L.)
Intensive laboratory, offered during a 6-week summer session. Students learn basic and advanced stem cell culture techniques. The sixth week is 40 hours at the Children's Hospital of Orange County Research Institute (CHOC).
Letter grade only (A-F). (Lecture 1 hr., laboratory 9 hrs.)

533./433. Developmental Biology (3)
Prerequisites: BIOL 340; BIOL 370 or BIOL 371 or MICR 371, both with a grade of "C" or better. (Undergraduates enroll in BIOL 433; graduates enroll in BIOL 533.)
Experimental approaches to development in model organisms, mostly animal, at the molecular, genetic, cellular, and tissue levels. Topics include gametogenesis, fertilization, early cleavage, gastrulation, pattern formation, and organogenesis.
Letter grade only (A-F). (Lecture/discussion 3 hrs.)
534/434. Hematology (4)
Prerequisite: BIOL 340 with a grade of "C" or better.
(Undergraduates enroll in BIOL 434; graduates enroll in BIOL 534.)
Study of blood and coagulation system. Normal cell structure and function and physiological and morphological changes in inflammation, leukemias, and anemias discussed. Clinical, diagnostic, and research techniques for observing blood and pathologic case studies included. Useful for students interested in medical professions. Required for clinical laboratory science (medical technology) internship.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.). Course fee may be required. Not open for credit to students with credit in MICR 523.

540. Advanced Molecular Cell Biology and Physiology (3)
Prerequisites: Graduate standing and consent of instructor.
In depth discussion of cellular processes and their regulation and how they relate to organismal physiology. Includes critical reading and discussion of primary journal articles on pertinent topics.
Letter grade only (A-F). (Lecture 3 hrs.)

542./442. Physiology at the Limit (3)
Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better.
(Undergraduates enroll in BIOL 442; graduates enroll in BIOL 542.)
Survey of biochemical and physiological adaptations of organisms under extreme environmental conditions or performance. Topics include adaptive responses to hypoxia, high-altitude, deep-sea diving, outer space, micro-gravity, exercise, flight, swimming, salt stress, and extreme temperatures. Examples from vertebrates and invertebrates.
Letter grade only (A-F). (Lecture 3 hrs.)

543./443. Endocrinology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.)
Role of endocrines in vertebrate and invertebrate adjustment to changes in internal and external environment.
Letter grade only (A-F). (Lecture 3 hrs.)

544./444. Reproductive Biology (3)
Prerequisites: BIOL 342 or BIOL 345 with a grade of "C" or better. (Undergraduates enroll in BIOL 444; graduates enroll in BIOL 544.)
Topics in comparative reproductive biology from molecular, cellular, organismal, and population levels. Hormones and reproduction, gamete/germ cell biology, reproductive lifespan, mating system/strategies, environmental influence on reproductive capabilities, contraception/in vitro fertilization. Scientific communication discussed including scientific articles and scientific writing.
Letter grade only (A-F). (Lecture 3 hrs.)

545./445. Metabolic Regulation (3)
Prerequisites: BIOL 340, BIOL 342 or BIOL 345; CHEM 441A with grade of "C" or better. (Undergraduates enroll in BIOL 445; graduates enroll in BIOL 545.)
Study of molecular mechanisms by which intermediary metabolism is regulated in various mammalian tissues with emphasis on mechanisms of hormone action and regulation of some key enzymes of carbohydrate, fat, and protein metabolism.
Letter grade only (A-F). (Lecture 3 hrs.)

548./448. Principles of Neurobiology (3)
Prerequisites: BIOL 340; BIOL 342 or BIOL 345, all with a grade of "C" or better. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.)
Study of the principles of anatomy, physiology, and function of the nervous system. Topics covered include neuroanatomy, physiology of neuronal signaling (excitable membranes and action potentials), synaptic transmission, neurotransmitters and their receptors, pain processing, special senses, reflexes, and neural circuits.
Letter grade only (A-F). (Lecture 3 hrs.)

549./449. Fish Physiology and Endocrinology (3)
Prerequisite: BIOL 345 with a grade of "C" or better. (Undergraduates enroll in BIOL 449; graduates enroll in BIOL 549.)
Fundamentals of physiological systems and strategies in fishes, with emphasis on endocrine regulatory mechanisms. Adaptations in endocrine physiology of fishes considered from evolutionary and ecological perspectives. Impacts of human activities, particularly in context of Southern California's marine environment addressed.
Letter grade only (A-F). (Lecture 3 hrs.)

550./450. Plant Ecology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. Recommended: BIOL 427, BIOL 447. (Undergraduates enroll in BIOL 450; graduates enroll in BIOL 550.)
Relationship of plants to their environment and principles of plant distribution.
Letter grade only (A-F) (Lecture 2 hrs., laboratory and field 3 hrs.)
Course fee may be required.

551./451. Wetlands and Mangrove Ecology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. (Undergraduates enroll in BIOL 451; graduates enroll in BIOL 551.)
Comprehensive look at wetland ecology and management. Focuses on physical, biogeochemical, and ecological aspects of major wetland ecosystems with an emphasis on local urban wetlands. Includes wetland management concepts and approaches worldwide.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

552./452. Behavioral Ecology (3)
Prerequisites: BIOL 312 or BIOL 350. (Undergraduates enroll in BIOL 452; graduates enroll in BIOL 552)
Primary objectives are to understand how animal behavior affects survival and reproduction and introduce students to current methodologies to study behavior of animals in lab and field conditions. Emphasizes ecological and evolutionary consequences of behavior across taxa.
Letter grade only (A-F). (Lecture 2 hrs., laboratory/field 3 hrs.)

554A./454A. Research in Tropical Marine Ecology (3)
Prerequisites: BIOL 350, BIOL 353, and one 400-level marine biology major course, all with grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 454A; graduates enroll in BIOL 554A.)
Field and laboratory studies, lectures, and individual research on tropical marine biological problems. Designed to engage students in experimental research, including: recognizing a problem, designing and carrying out a project, statistical data analysis, and oral and written report presentation.
Eight-day field trip to Hawaii required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). Course fee may be required. (Lecture 2 hrs., 8 day field trip.)

554B./454B. Research in Tropical Terrestrial Ecology (3)
Prerequisites: BIOL 350 with a grade of "C" or better; and consent of instructor. (Undergraduates enroll in BIOL 454B; graduates enroll in BIOL 554B.)
Field-based comparison of tropical lowland deciduous forest and lowland rainforest incorporating basic ecology methodology. Forest structure and diversity of animals emphasized. Students maintain field notebook, submit final paper, and give oral presentation.
Nine-day fieldtrip to Costa Rica required during spring recess at student expense. Enrollment is limited. Letter grade only (A-F). Course fee may be required. (Lecture 2 hr., 9 day field trip.)
555./455. Ecology of Marine Communities (3)
Prerequisites: BIOL 260, BIOL 350, BIOL 353 all with a grade of "C" or better. (Undergraduates enroll in BIOL 455; graduates enroll in BIOL 555.)
Field studies on ecological principles related to marine communities discussed. Includes individual field research project and two class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 3 hrs.)

556./456. Population Ecology (3)
Prerequisites: BIOL 350; MATH 119B or MATH 123; all with a grade of "C" or better. (Undergraduates enroll in BIOL 456; graduates enroll in BIOL 556.)
Analysis of animal and plant populations characteristics: population growth and regulation, fluctuation and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; spatial patterns.
Letter grade only (A-F). (Lecture 3 hrs.)

557./457. Field Methods in Ecology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. (Undergraduates enroll in BIOL 457; graduates enroll in BIOL 557.)
Design of field research projects, collection, and data analysis, report writings and presentations. Field sampling techniques emphasized. Five weekend fieldtrips required.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 3 hrs.)

559./459. Conservation Biology (3)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. Recommended: BIOL 370. (Undergraduates enroll in BIOL 459; graduates enroll in BIOL 559.)
Conservation biology concepts including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, biological diversity patterns, habitat fragmentation, reserve design, and landscape-level conservation. Lecture includes group discussions of case studies and relevant primary literature.
Letter grade only (A-F). (Lecture 3 hrs.) 20 hrs. per semester service learning for undergraduates, extra research paper for graduates.

562./462. Bioethics and Public Policy (3)
Prerequisite: BIOL 340 with a grade of "C" or better. Recommended: BIOL 370. (Undergraduates enroll in BIOL 462; graduates enroll in BIOL 562.)
History of bioethics, scientific and medical bases of key ethical issues, current legislation and appropriations, including legal, social, and ethical implications of stem cell research and other biotechnological advances.
Letter grade only (A-F). (Lecture 3 hrs.)

563./463. Computer Modelling in Biology (4)
Prerequisites: BIOL 260, BIOL 350 both with a grade of "C" or better. (Undergraduates enroll in BIOL 463; graduates enroll in BIOL 563.)
History, modeling theory, different modeling approaches, theoretical, empirical and quantitative modeling. Laboratory uses modeling software and focuses on model construction and quantitative simulation. Applicable to ecology, microbiology, physiology, environmental sciences, etc.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

564./464. Aquatic Toxicology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 340; CHEM 220A or CHEM 227, all with a grade of "C" or better. Recommended: BIOL 353 and CHEM 448 or 441A.B. (Undergraduates enroll in BIOL 464; graduates enroll in BIOL 564.)
In depth study of interactions between anthropogenic chemicals and aquatic ecosystems, including origin, fate, chemical and biological detection, and quantification of pollutants and impact at molecular, biochemical, cellular, physiological, organismal, and community levels of organization. Individual research project required.
Letter grade only (A-F). (Lecture 3 hrs.)

565./465. Experimental Design and Regression Analysis (4)
Prerequisites: BIOL 260; MATH 119B or MATH 123; 6 units of upper division biological science all with a grade of "C" or better. (Undergraduates enroll in BIOL 465; graduates enroll in BIOL 565.)
Experimental design and data analysis techniques applied to problems in biology including analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Experience in analyzing biological data using computerized statistical packages.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

567./467. Multivariate Data Analysis (4)
Prerequisites: BIOL 260; MATH 119B or MATH 123; 6 units of upper division biological science all with a grade of "C" or better. (Undergraduates enroll in BIOL 467; graduates enroll in BIOL 567.)
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

570. Advanced Genetics (3)
Prerequisites: Graduate standing and consent of instructor.
In depth discussion of various advanced topics in genetics, which may include population genetics, molecular phylogeny, and microbial genetics. Includes critical reading and discussion of primary journal articles on pertinent topics.
Letter grade only (A-F). (Lecture 3 hrs.)

571./471. Bacterial Physiology (3)
Prerequisites: BIOL 320 or MICR 320, CHEM 441A or CHEM 448; both with a grade of "C" or better. (Undergraduates enroll in BIOL 471; graduates enroll in BIOL 571.)
Cellular physiology at molecular level as related to bacterial growth, reproduction, nutrition, metabolism, and ecology.
Letter grade only (A-F). (Lecture 3 hrs.). Not open for credit to students with credit in MICR 571.

572./472. Molecular Evolution (3)
Prerequisite: BIOL 370 with a grade of "C" or better. Recommended: BIOL 312. (Undergraduates enroll in BIOL 472; graduates enroll in BIOL 572.)
Survey of molecular evolution including but not limited to the history of the field, protein and DNA evolution, neutral and nearly-neutral theory, molecular phylogenetics, molecular population genetics and DNA fingerprinting, genomics, and proteomics. Applicable to ecological, evolutionary, medical, forensic sciences.
Letter grade only (A-F). (Lecture 3 hrs.)

573./473. Molecular Genetics (3)
Prerequisites: BIOL 370 or BIOL 371 or MICR 371; CHEM 220A,B and CHEM 223A,B, or CHEM 227, all with a grade of "C" or better. (Undergraduates enroll in BIOL 473; graduates enroll in BIOL 573.)
Contemporary molecular genetic analysis of model organisms (mouse, worm, flies, yeasts) used in study of human disease, basic biological processes, gene regulation, and global analysis of genomes and proteomes.
Letter grade only (A-F). (Lecture 3 hrs.)
574./474. Bioinformatics (3)
Prerequisites: BIOL 260; BIOL 370 or BIOL 371 or MICR 371, all with a grade of "C" or better. (Undergraduates enroll in BIOL 474; graduates enroll in BIOL 574.)
Survey of biological sequences and prokaryotic genomes. Investigation of DNA, RNA, and protein sequences using statistics and computer science techniques. Computer-based laboratory will familiarize students with bioinformatics tools and programming. Letter grade only (A-F). (Lectures 2 hrs., laboratory 3 hrs.)

577./477. Biotechnology: Applications of Molecular Techniques and Bioinformatics (4)
Prerequisite: BIOL 340 or BIOL 370 or CHEM 441A,B; all with a grade of "C" or better. (Undergraduates enroll in BIOL 477; graduates enroll in BIOL 577.)
Theory and techniques for isolating, amplifying, and analyzing genes, genomes, transcripts, and proteins. Data-mining, the use of computers in experimental design and/or functional analysis, use of microarrays, and future of nanotechnology.
Letter grade only (A-F). Not open for credit to student with credit in MICR 577/477. (Lecture 3 hrs., activity 2 hrs.)

580./480. Seminars (1)
Prerequisites: Consent of Department of Biological Sciences. (Undergraduates and classified post-baccalaureates enroll in BIOL 480; graduates enroll in BIOL 580). Undergraduates must have filed for graduation and be in their last semester. Graduates must have been admitted to the department as a graduate student. Classified post-baccalaureates must have been admitted to a second baccalaureate or a certificate.
Weekly meetings with professional biologists presenting results of their research. Requires participation in organization and critical evaluation of these presentations.
(Seminar 1 hr.) Letter grade only (A-F). May not be repeated for credit towards any single degree.

590./490. Selected Topics in Biology (1-3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490; graduates enroll in BIOL 590.)
Topics from selected areas of biology. Course content varies from section to section.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Lecture 1-3 hrs.)

590L./490L. Selected Topics in Biology, Laboratory (1-2)
Prerequisites: BIOL 211, BIOL 212, BIOL 213 all with a grade of "C" or better, and consent of instructor. (Undergraduates enroll in BIOL 490L; graduates enroll in BIOL 590L.)
Topics from selected areas of biology. Course content varies from section to section.
Letter grade only (A-F). May be repeated to a maximum of 4 units with different topics. Topics announced in the Schedule of Classes. (Laboratory 3 or 6 hrs.)

592A./492A. Stem Cell Research Internship (12)
Prerequisites: BIOL 432/532, BIOL 432L/532L, BIOL 440L, BIOL 462/562, BIOL 473/573, BIOL 477/577, all with a grade of "C" or better, and consent of the director of the CSULB Biotechnology Certificate Program, and acceptance in the Stem Cell Training Option within the Biotechnology Certificate. (Undergraduates enroll in BIOL 492A; graduates enroll in BIOL 592A.)
CIRM-approved institutions train interns in their stem cell research laboratories. Must be repeated once for credit.
Credit/No Credit grading only. (Laboratory 36 hrs.)

661. Seminar in Microbiology (2)
Prerequisite: Consent of instructor.
Critical evaluation of literature in this field, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F). (Seminar 2 hrs.)

663. Seminar in Cell and Molecular Biology (2)
Critical evaluation of field's primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

664. Seminar in Marine Biology (2)
Critical evaluation of field’s primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

665. Seminar in Ecology (2)
Critical evaluation of field’s primary literature, including oral and/or written presentation of critiques.
May be repeated to a maximum of 4 units with different topics. Letter grade only (A-F) (Seminar 2 hrs.)

696A. Research Design and Ethics (3)
Prerequisites: Graduate standing in the Department of Biological Sciences and departmental permission.
Research design, experimental ethics, statistics, literature searches, and thesis proposal writing. Required for all first semester graduate students.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

696B. Scientific Communication (3)
Prerequisite: BIOL 696A with a grade of "B" or better.
Presentation/publication skills for communicating biological research to professional and lay audiences: scientific writing, data presentation (posters and oral).
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Research on specific topic approved and directed by a faculty member in the biological sciences. Written report required.
May be repeated for a letter grade and degree credit to a maximum of three units. Any units beyond the three taken for a letter grade in BIOL 697 or MICR 697 or any combination of the two must be taken credit/no credit.
698. Thesis (1-6)
Prerequisites: Advancement to Candidacy for the Master of Science in Biology, and consent of the chair of the thesis committee and the departmental graduate advisor.
Planning, preparation, writing, defense, oral presentation, and completion of a research thesis in the biological sciences.
Letter grade only (A-F).
Students pursuing a major and/or a minor in this department may receive unit credit for courses marked with the symbol ‘##’ as a general elective but may not apply the units toward the specific or elective requirements for any degree or option in this department. Majors in this Department may, however take for general education purposes, interdisciplinary courses offered by this department. All other courses in this department are open to majors and minors but by letter grade only.
Academic Advising

Accreditation

Master of Science

Master of Business Administration

Finance, Management Information Systems, International

Minors in Business Administration

Bachelor of Science in Business Administration

Programs at a Glance

Marketing: Sam Min (562) 985-4767

Management and Human Resource Management: (562) 985-4753

(562) 985-5668

Legal Studies in Business Program: Kathleen A. Lacey, Director

(562) 985-4766

International Business Program: Terrence H. Witkowski, Director

Information Systems: H. Michael Chung, Chair (562) 985-4993

Finance: (562) 985-4569

Accountancy: Sudha Krishnan, Chair (562) 985-4653

Departments

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Legal Studies in Business Program: Kathleen A. Lacey, Director (562) 985-5668

Management and Human Resource Management: (562) 985-4753

Marketing: Sam Min (562) 985-7129

Programs at a Glance

Bachelor of Science in Business Administration

Options in: Accountancy; Finance; Human Resources Management; International Business; Management; Management Information Systems; Marketing; Operations and Supply Chain Management

Minors in Business Administration


Master of Business Administration


Master of Science

Accountancy, Supply Chain Management

Accreditation

Undergraduate and graduate programs are internationally accredited by the Association to Advance Collegiate Schools of Business (AACSB International), 777 South Harbour Island Blvd., Suite 750, Tampa, FL 33602-5730, phone: (813) 769-6500.

Academic Advising

The College of Business Administration maintains an advising office for undergraduate students in CBA 100, (562) 985-4514, and an office for graduate students in CBA 363, (562) 985-5565. Advisors are available in these offices throughout the semester to assist students with admission, registration, and degree requirement information.

Student Center for Professional Development

The Student Center for Professional Development (SCPD) provides resources in support of student learning under its umbrella program Passport to Success (Passport). SCPD also encourages students to join business student organizations to assist them in connecting to college resources and networking opportunities. Under the Passport umbrella SCPD offers the following resources:

Professional development workshops provide a progression of learning experiences that teach students non-academic skills and attributes employers want to see in new employees.

Community Scholars is a community service program that pairs CBA students with Jordan High School sophomores and juniors in a mentoring relationship that encourages academic success and pursuit of a college education. CBA students make a positive impact on the high school students' lives while performing a community service that employers highly value in a prospective employee.

Junior Mentoring Program is a one-semester program where junior CBA students are paired with young professionals in a mentoring relationship. Mentors help students prepare for their college careers, sharing their skills, knowledge and advice on how to balance college, work and personal life. Focus is given to resume building and professional development activities that will better prepare the students for the job market and complement their academic learning experience.

Corporate Mentoring Program pairs mentors from the corporate world with individual students in a year-long one-on-one relationship. The mentors coach and guide the students, help them with decision making and manage their expectations for life after graduation. Students must complete certain prerequisites to participate in CMP.

For more information about SCPD programs, services and resources please contact SCPD at (562) 985-2265 or www.csulb.edu/cba/scpd or scpd@csulb.edu.

Financial Assistance

Financial assistance is provided to business students through the University Financial Aid Office. That office administers funds made available through the federal and state governments and through certain private sources. Awards are made to students who demonstrate a need for assistance with educational expenses.

Achievement Awards

Additional information about the following awards and their requirements can be obtained from the CBA website.

Applications for Outstanding Undergraduate are usually due in early to mid-January. Each department may select up to three Outstanding Graduates. From among the chosen Outstanding Undergraduates, the Dean of the College selects the Dean's Medalist. These awards are reserved for graduating seniors and require a minimum GPA along with other considerations for applicants.
The following organizations are available for business students: American Marketing Association, Beta Alpha Psi Accounting Society, Black Business Students Association, Delta Sigma Pi, Financial Management Association, Hispanic Students Business Association, Human Resource Management Association, Information Systems Student Association, International Business Association, MBA Student Association, and Society for the Advancement of Management. Student organizations typically host professionals representing business and industry at weekly meetings and also sponsor a variety of social, recreational, and community service events.

The Associated Business Students Organization Council (ABSOC) is the coordinating council for all business student organizations. ABSOC co-sponsors the annual "Meet the Industries Expo." This annual event includes professional development workshops and a career expo which draws numerous companies and several hundred students. Other programs each semester include a business student organizations’ fair and the student-faculty-staff mixer. ABSOC also co-sponsors the annual "Ethics at The Beach" seminar with the Ukleja Center for Ethical Leadership.

Beta Gamma Sigma, founded at the University of Wisconsin in 1907 as a business honor society, is the only honor society recognized by the AACSB - International. Membership is available to business students at California State University, Long Beach only because the College of Business Administration is accredited by AACSB.

Election to membership in Beta Gamma Sigma is the highest scholastic honor that a student in business administration can attain. To be eligible for membership at CSULB, students must rank in the upper ten percent of their junior, senior, or graduate degree program in business administration.

Computer and Information Technology

Students in the degree program develop basic understandings and competencies relating to information processing, the application of computers in business and government, management information systems concepts, computer programming, statistics, and financial research with Bloomberg terminal. The computer laboratory consists of most up-to-date instructional software, and hardware to facilitate student learning.

General Policies and Regulations

Specific University and College requirements are detailed in various sections of this Catalog. Every student must develop complete familiarity and understanding of the regulations and requirements by which successful completion of a program will be determined. (Also see pertinent section regarding University General Regulations and Procedures).

Admission Under Impaction

Freshman applicants to the Bachelor of Science in Business Administration will be placed in the pre-major code for Business Administration. Transfer applicants must apply to the University during the initial filing period of October and November for the following fall semester or August for the following spring semester. They must indicate their choice of major on the application.

Continuing students seeking admission to the upper-division major in Business Administration must submit a supplemental application to the CBA Center for Student Success (CBA, Room 100). Although there is no specific deadline for filing, it usually takes a minimum of two weeks to complete the application process. Therefore, students should file their applications no later than two weeks before their next Early Registration access date.

Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/

Special Enrollment Status

Enrollment through Open University (College of Continuing and Professional Education) is allowed only on a space available basis which is determined by the type of course and teaching method as well as classroom capacities. The student must otherwise be qualified.

CBA Policy on Course Transfers/Substitutions

The College of Business Administration has a strict policy on course transfers/substitutions. This is necessary to preserve the academic integrity of programs and to meet accreditation standards. No credit by examination will be allowed for any CBA course. The CBA Center for Student Success can be consulted for more information on course transfers and substitutions.

Grading Policy

All CBA majors must maintain major GPAs 2.0 or higher. A student whose GPA in the major falls below a 2.0 will be advised that they are at risk of being dismissed from the major and graded one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

Business majors and minors may not exercise a Credit/No-Credit grading option for courses required by the College of Business Administration in their program. No course taken for Credit/No-Credit grading will be accepted to fulfill a Business requirement, with the exception of students transferring Advanced Placement or International Baccalareate credit. Enrollment in a business course as an auditor is not permitted.
Graduate Programs

The College of Business Administration offers graduate study leading to the Master of Science in Accountancy, Master of Science in Supply Chain Management, and Master of Business Administration (MBA). The degrees offered by the College of Business Administration are accredited by the AACSB - International.

The graduate degrees are designed to serve the community by providing graduate business education to persons who show promise of leadership and success in business or related fields. For this reason, the faculty of the College of Business Administration has established rigorous standards of admission and completion for the programs.

Administration of CBA Graduate Programs

All College of Business Administration Graduate Programs are administered by the CBA Graduate Programs Office, CBA 363. The Graduate Programs Director heads that office.

Admission to Graduate Study

In addition to admission by the University Office of Admissions and Records, an applicant for graduate study in business must apply to and be admitted by the College of Business Administration (CBA) Graduate Programs Office.

Admission Procedures

1. Students interested in applying to the MS Program or the MBA program at CSULB have to follow a two-step application process. First, they should file a CSULB Graduate Program application process using the California State University’s online application program called CSUMENTOR at www.csumentor.edu. Second, they also need to apply to the College of Business Administration’s MS or MBA Program, using the CBA's online application program called ADVANCE at www.csulb.edu/cba/advance. These two applications may be started simultaneously, but acceptance to both the University and the CBA is necessary to enroll in the MBA Program.

2. One complete set of official transcripts of all college work attempted are required, and must be uploaded to Advance System.

3. Graduate Management Admission Test (GMAT) or Graduate Records Examination (GRE) scores must be forwarded directly from the GMAC or ETS, to the College of Business Administration Graduate Programs Office. The GMAT code for the CBA MS and MBA Programs is 364-M9-69. The GRE Institutional code for all programs is 8848, Dept. Code is 4201. Test scores over 5 years old will not be considered.

4. International applicants should first contact the Center for International Education on campus for all application requirements. International students who score less than a “4” on the GMAT or GRE writing section should contact the CBA Graduate Programs Office directly for available options.

In addition to the steps above, all international applicants are required to complete all the usual steps of all applicants to the MS and MBA programs.

Application Deadlines

Deadlines for International applications are:

- April 1 for CSU Mentor Application, April 15 for CBA Advance Application for Fall Semester admission. This applies to all graduate programs except as noted directly below.
- October 1 for CSU Mentor Application, October 15 for CBA Advance Application for Spring Semester admission. This applies to the Spring Evening MBA Program Only.

Deadline for domestic applications are:

- April 15 for both CSU Mentor and CBA Advance for the Daytime, Accelerated MBA only.
- June 1 for both CSU Mentor Application and CBA Advance Application for Fall Semester admission. This applies to the MS programs and the Saturday MBA and Fall admissions for the Evening MBA Program.
- November 1 for both CSU Mentor Application and CBA Advance Application for Spring Semester admission. This November 1 deadline applies to Spring admissions for the Evening MBA Program only.

Because of high demand for admission to the graduate programs, it is advised that students submit their application to the program early. No action can be taken on applications until all required documents are received. Except in highly unusual circumstances, application materials submitted after the above dates will not be considered.

Criteria

Admission will be granted to students showing high promise of success in post-baccalaureate business study. Each applicant’s potential for graduate management education is evaluated on the basis of six major criteria:

1. Past Academic Record, as reflected in undergraduate GPA or other Graduate programs.

2. Graduate Records Examination (GRE) or Graduate Management Admission Test (GMAT).

3. Managerial Experience: demonstration of increasing levels of responsibility.

4. Written Communication ability as demonstrated in the Applicant’s “Statement of Purpose” to clearly identify their leadership potential, educational goals and academic strengths.

5. Two Letters of Recommendation.

Upon completion of evaluation by the CBA Graduate Director, the student is notified by email of acceptance or rejection.

Enrollment

Students must meet all of the CBA Graduate Admissions criteria in order to be admitted into the University as a CBA Graduate student.

Admission to Graduate Courses

Only students who have been admitted to the MS or MBA program may take graduate courses in Business Administration. The only exception is that students who have been admitted to other Master’s programs at CSULB may take select graduate courses in Business Administration to meet the requirements for their programs, with the permission of their major advisor and the Director of the Graduate Programs.

Enrollment in graduate courses through the Open University will normally be permitted only for students in an
An AACSB-accredited graduate program at another institution and must have a letter of permission from the Associate Dean/Dean of the student’s home university, or for alumni of the CBA Graduate Programs.

Continuous Enrollment

Once a student is accepted and enrolled in any of the CBA Graduate Programs, he/she is expected to attend classes both semesters of the academic year. (Fall and Spring semesters are considered the regular semesters of the academic year; in the evening program Summer attendance is optional.) Registration and completion of at least one course each semester satisfies the Continuous Enrollment requirement.

If a student is unable to satisfy the Continuous Enrollment requirement, he/she must complete the Educational Leave of Absence procedures detailed below. Continuous Enrollment status will only be preserved if the student’s absence from a regular semester has been processed and approved through the Educational Leave of Absence procedures.

Students failing to maintain Continuous Enrollment status will be administratively removed from the CBA Graduate Programs. Registration privileges will be revoked. Students planning to continue in the CBA Graduate Programs who have been administratively removed due to the violation of the Continuous Enrollment condition will be required to re-apply to the CBA Graduate Programs and to the University.

Leave of Absence

Any CBA graduate student in good academic standing may request an Educational Leave. Students requesting an Educational Leave must complete an Educational Leave Form, in advance, including an explanation of their reasons for seeking the leave and a statement of when they intend to resume academic work. The completed form is to be submitted for approval to the CBA Graduate Programs Office and the University Admission and Records Office in accordance with University Policy.

The minimum initial leave will be one full semester; the maximum will be one calendar year. A student may request, in writing and in advance, an extension of leave. Under no circumstances will the total number of approved educational leaves exceed two, nor will the duration of approved educational leaves extend beyond two calendar years.

Students returning from an approved one semester educational leave are not required to submit an application form. Students on leave longer than one semester must apply for re-admission to the university. Students returning from an absence for which an educational leave was appropriate but not approved in advance must complete the entire CBA Graduate admission process.

An Educational Leave of Absence, if properly requested and processed, allows a student to satisfy the Continuous Enrollment requirement and therefore does not affect their good standing status. Students on an approved educational leave of absence will continue to receive registration information.

Graduate students who plan to enroll for credit at another institution of higher education during the leave period must obtain prior approval for the transfer of course credit to the student’s program from the department chair in question and the CBA Graduate Programs Director.

The period of an educational leave is counted in the calculation of elapsed time under the regulations governing the seven year maximum period for completion of the CBA Graduate degree requirements.

For the period of an educational leave the student’s rights under the “Election of Regulation” rule are preserved, maintaining the right of the student to elect regulations as if he or she had maintained continuous attendance. See the CSULB Catalog, General Rules and Procedures section, for a complete explanation of the Election of Regulation - “Catalog Rights”.

An educational leave presupposes no expenditure of University resources or faculty and staff time on behalf of the student during the period of the leave. In addition, no computer facilities, no library privileges, and no student services are available to a student on educational leave.

Scholastic Standards/Probation/Disqualification

A student who fails to maintain a cumulative GPA of 3.0 or higher in all work completed as a graduate student at this University or in all transferred work applied to the program will be placed on academic probation. The semester in which the student's GPA falls below 3.0 is the First Probational Semester.

A student on probation, who at the end of the Third Probationary Semester fails to obtain a cumulative GPA of 3.0 or higher on all units attempted in post-baccalaureate work at CSULB, will be disqualified and removed from the graduate program. The student should note that the cumulative GPA is calculated by the University Admissions and Records Office and includes all upper division and graduate courses taken while enrolled in the graduate program.

For MBA students, a grade of “C” or better is required in any course taken to satisfy first or second year Core requirements. A grade of “B” or better is required in GBA 699. If either of these requirements is not met, a student must take the course a second time or withdraw from the program. A second failure to achieve the required grade will result in involuntary separation from the program. This requirement operates independently of the requirement for a cumulative GPA of 3.0 or better.

Graduation Writing Assessment Requirement (GWAR)

As a requirement for advancement to candidacy, all graduate students must demonstrate writing competency by:

1. Passing an approved CSULB assessment of writing competence (GWAR),
2. Having already passed an assessment of writing competence (GWAR) while matriculated at another CSU campus, or
3. Earning a CSULB-approved passing score on the writing portion of an approved standardized graduate admissions test, such as the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT).

Assessments of writing competence from non-CSU campuses will be evaluated by the GWAR Coordinator as a fulfillment of the GWAR, on an articulation basis if possible or on a case-by-case basis if necessary.

Students with degrees from non-CSU campuses must either provide evidence of meeting the requirement with adequate scores on a CSULB-approved standardized test or attempt to satisfy the GWAR by the end of their first semester of matriculation at CSULB.
Master of Science in Accountancy

The Master of Accountancy (MAC) program in the College of Business Administration is a rigorous 10-month full-time lock-step program providing an intensive, focused coursework to prepare students for a successful career in accounting. The program is intended to enhance student’s depth of technical knowledge, breadth of understanding and communication skills, and importance of ethical conduct in the profession. With a focus on research and analytical thinking, the program is intended to improve judgement and decision making skills. The program is designed to address the needs of individuals across the state of California to take the mandated 30 semester units of specialized coursework to complete the CPA licensure requirements effective January 1, 2014. Students admitted to the program can specialize in Professional Accountancy, Information Systems or Taxation.

Application Procedure/ Prerequisites
1. Students interested in applying to the MS in Accountancy program at CSULB have to follow a two-step application process. First, they should file a CSULB Graduate Program application using the California State University’s online application program called CSUMENTOR at www.csumentor.edu. Second, they also need to apply to the MS in Accountancy Program, using the CBA’s online application program called ADVANCE at http://www.csulb.edu/cba/advance. These two applications can be started simultaneously, but acceptance to both the University and the CBA is necessary to enroll in the program.
2. Bachelor’s degree in Accountancy or a bachelor’s degree and equivalent accounting-related coursework from a regionally-accredited university.
3. Admission GPA to the CBA Master’s programs as per the University.
4. GMAT exams or GRE exams.
5. Resume.
7. Two letters of recommendation.
8. For international students – English proficiency requirements by taking TOEFL or written portion of GMAT, GRE, or IELTS exams.

Course requirements
- Completion of 30 units of approved graduate courses (including culminating experience).
- Maintaining GPA of at least 3.0 (B) throughout the program.

Requirements
ACCT 601 Corporate Governance and Financial Reporting (4)
   Prerequisite: MSA standing.
ACCT 602 Advanced Cost Accounting (4)
   Prerequisite: MSA standing
ACCT 603 Financial Statement Analysis (4)
   Prerequisite: MSA standing.
ACCT 604 Forensic Accounting (2)
   Prerequisite: MSA standing
ACCT 605 Seminar in Accounting Information Systems (4)
   Prerequisite: MSA standing.
ACCT 611 Seminar in Auditing and Assurance Services (4)
   Prerequisite: MSA standing.

ACCT 612 Governmental and Non-Profit Accounting
   Prerequisite: MSA standing.

Culmination
The culminating experience, ACCT 699 (Accountant’s Professional Responsibilities and Ethics) will be a comprehensive auditing project to be reviewed by faculty and professionals. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

Advancement to Candidacy
Students admitted must file an application for Advancement to Candidacy for the degree after completion of their first six units. Prior to advancement to candidacy, a student must:
1. Be accepted into the MS in Accountancy Program.
2. Maintain an overall minimum 3.0 cumulative GPA, including work transferred from other institutions, and a minimum 3.0 GPA in all work completed at this University.
3. Completion with a minimum GPA of 3.0 of at least six units of courses required on the student’s program of study.
4. Fulfill the Graduation Writing Assessment Requirement (GWAR) or receive a 4.0 or better on the writing portion of the GMAT or GRE.
5. Prepare an official student program in consultation with the CBA Graduate Programs Office.
6. File the application for Advancement to Candidacy with the CBA Graduate Programs Office for approval by the Graduate Program Director.

Master of Science in Supply Chain Management

The Master of Science in Supply Chain Management program is designed to provide its students with advanced and highly demanded training in modern supply chain management practices, analysis methods, technology applications, strategy development, and other relevant skills that will advance their career prospects and prepare them for lifelong learning in a global supply chain environment. The rigorous curriculum will equip its graduates with advanced knowledge and skills needed to identify, analyze, and resolve complex supply chain challenges faced by global-scale businesses. This is accomplished through a unique combination of quantitative, technical, operational, strategic, and behavioral preparation.

Application Procedure/ Prerequisites
1. Students interested in applying to the MS in Supply Chain Management program at CSULB have to follow a two-step application process. First, they should file a CSULB Graduate Program application using the California State University’s online application program called CSUMENTOR at www.csumentor.edu. Second, they also need to apply to the MS in Supply Chain Management Program, using the CBA’s online application program called ADVANCE at http://www.csulb.edu/cba/advance. These two applications can be started simultaneously, but acceptance to both the University and the CBA is necessary to enroll in the program.
2. A bachelor’s degree from a regionally accredited university.
3. Admission GPA to the CBA Master’s programs as per the University.
4. GMAT exams or GRE exams.
5. Resume.
7. Two letters of recommendation.
8. For international students – English proficiency requirements by taking TOEFL or written portion of GMAT, GRE, or IELTS exams.

Course requirements
Completion of 30 units of approved graduate courses (including culminating experience)
Maintaining GPA of at least 3.0 (B) throughout the program

Required courses:
Requirements

SCM 500 Research Methods for Supply Chain Management (3)
Prerequisite: Graduate standing.

SCM 520 Business Economics (3)
Prerequisite: Graduate standing.

SCM 611 Operations Planning and Analysis (3)
Prerequisite: Graduate standing.

SCM 614 Supply Chain Management (3)
Prerequisite: Graduate standing.

SCM 620 Business Analytics and Supply Chain Management (3)
Prerequisite: Graduate standing.

SCM 625 Global Supply Chain Management (3)
Prerequisite: Graduate standing.

SCM 630 Project Management (3)
Prerequisite: Graduate standing.

SCM 640 Logistics and Transportation Management (3)
Prerequisite: Graduate standing.

SCM 657 Seminar in Supply Chain Leadership (3)
Prerequisite: Graduate standing.

Culmination
In conjunction with additional course work, the culminating experience, SCM 699 Capstone Project for Supply Chain Management (3) will be a comprehensive supply chain project to be reviewed by faculty and professionals.

Advancement to Candidacy
Students admitted must file an application for Advancement to Candidacy for the degree after completion of their first six units. Prior to advancement to candidacy, a student must:
1. Be accepted into the MS in Supply Chain Management Program.
2. Maintain an overall minimum 3.0 cumulative GPA, including work transferred from other institutions, and a minimum 3.0 GPA in all work completed at this University.
3. Completion with a minimum GPA of 3.0 of at least six units of courses required on the student’s program of study.
4. Fulfill the Graduation Writing Assessment Requirement (GWAR) or receive a 4.0 or better on the writing portion of the GMAT or GRE.
5. Prepare an official student program in consultation with the CBA Graduate Programs Office.
6. File the application for Advancement to Candidacy with the CBA Graduate Programs Office for approval by the Graduate Program Director.

Master of Business Administration
The Master of Business Administration program develops competencies essential to functioning professionally in a complex and competitive business environment. The program prepares students for responsible administrative positions and provides the background essential for advancement in professional management careers. The Master of Business Administration degree encompasses a program of breadth which builds a wide range of competencies required for effective management while permitting students to specialize in a functional area.

    The Master of Business Administration is normally a 48-unit program for the graduate without an undergraduate degree in Business.

General MBA
Requirements
The Master of Business Administration program requires completion of a minimum of 36 units of graduate course work as established and approved by the College of Business Administration MBA office. The MBA program must include:

I. First Year Core
0-12

II. Advancement to Candidacy

III. Second Year Core
21

IV. Advanced Study
12

V. Capstone
3

Total units
36-48

MBA students should be guided by the following sequence of events as they progress through their graduate study in the College of Business Administration.

I. First Year Core: Common Body of Knowledge
The masters degree presupposes mastery of a common body of knowledge. Students with a recent bachelor’s degree in business administration from this University or from other AACSB-accredited business schools within the last 3 years will have met much of the First Year Core requirements depending on the grades they achieved in certain courses. Upon acceptance to the MBA Program, student’s transcripts are reviewed for completion of the necessary course work for mastery of the common body of knowledge. Generally, a grade of “B” or better within the last 3 years or an “A” in the last 4 years is required to meet the criteria. More information about this requirement and waiver exams is available from the CBA Graduate Programs Office.

    Students with comparable, three-year old coursework from a non-AACSB business school with grades of “B” or better may take waiver exams only at the beginning of their program to demonstrate capability in the First Year Core classes.
Waivers of the First Year Core classes are based upon recent, satisfactory educational background at either a graduate or undergraduate level as described above. Students who have not met the entire common body of knowledge requirements prior to admission to the MBA Program will be required to enroll in the appropriate First Year Core Courses to make up any deficiency.

The First Year Core consists of at most four courses (up to 12 units):
- ACCT 500 Financial Accounting (3 units)
- FIN 501 Financial Management Concepts (3 units)
- MGMT 500 Business Policies, Operations and Organizations (3 units)
- MKTG 500 Marketing Concepts (3 units)

II. Advancement to Candidacy

Students admitted with all First Year Core requirements completed must file an application for Advancement to Candidacy for the degree after completion of their first six units. Other students must file the application during the semester in which the First Year Core requirements are to be completed. Prior to advancement to candidacy, a student must:
1. Be accepted into the MBA Program.
2. Maintain an overall minimum 3.0 cumulative GPA, including work transferred from other institutions, and a minimum 3.0 GPA in all work completed at this University.
3. Complete all First Year Core Requirements, with no grade lower than "C".
4. Fulfill the Graduation Writing Assessment Requirement (GWAR) or receive a 4.0 or better on the writing portion of the GMAT or GRE.
5. Prepare an official student program in consultation with the CBA Graduate Programs Office. This program must include the Second-Year Core in effect at the time of Advancement to Candidacy, the 12 unit program for the area of Advanced Study and the Capstone Course, GBA 699, for a total of 36 units.
6. File the application for Advancement to Candidacy with the CBA Graduate Programs Office for approval by the Program Director.

IIII. Second Year Core

Upon completion of the First Year Core, either by waiver or graduate course work, students move directly into the Second Year Core. (See section on Advancement to Candidacy). This core consists of seven courses (21 units) which provide the breadth requirements for the MBA degree at the advanced level.

Take all of the following courses:
- ACCT 610 Managerial Accounting and Control (3)  
  Prerequisite: Graduate business standing.
- FIN 600 Seminar in Business Finance (3)  
  Prerequisite: Not applicable.
- HRM 652 Seminar in Human Resources Management (3)  
  Prerequisite: Graduate business standing.
- IS 601 Quantitative Methods for Managerial Decision Making (3)  
  Prerequisite: Graduate business standing.
- IS 602 Management of Information Systems (3)  
  Prerequisite: Graduate business standing.

IIIIII. MBA Specializations

Specializations require 12 units with at least nine units of graduate course work in one area. These specializations are only available in the evening program.

Any student may count three units of Directed Studies (697) toward Advanced Study requirements. See CBA Graduate Programs Office for more details.

Elective courses designed to fulfill specialization requirements must be approved by the CBA Graduate Programs Office through the completion and acceptance of the student's degree objectives as a specialization.

A. Consumer Affairs

Requirements:
- Take nine elective units selected from the following:
  - FCS 520, FCS 525, FCS 526, FCS 529, FCS 563, FCS 600.

B. Fashion Merchandising and Design

Requirements:
- Take nine elective units selected from the following:
  - FCS 555, FCS 558, FCS 563, FCS 600.

C. Finance

Requirements:
- Take nine elective units selected from the following:
  - FIN 620, FIN 630, FIN 650, FIN 690.

D. Health Care Management

Requirements:
- Take the following course:
  - HCA 502 The Health Care System (3)  
  Prerequisites: None.

IV. Advanced Study

The General MBA is designed for students with an undergraduate business degree or any other student desiring a more broad-based MBA curriculum. The General MBA requires 12 units of graduate course work in three different areas within the College of Business Administration subject to approval by the CBA Graduate Programs Office.

V. Transfer Credit

Assuming the Continuous Enrollment requirement has been satisfied, a maximum of nine credits that closely complement the student's degree objectives may be applied toward the requirements for the MBA degree beyond the First Year Core under the following conditions:
1. The credits under consideration must be graduate credits.
2. The course work must be taken at an AACSB accredited graduate program.
3. Prior approval must be obtained from the CBA Graduate Programs Director.
4. Prior approval must be obtained from the department chair of the course work being transferred.

The remaining units must be completed in courses at CSULB reserved exclusively for graduate students.

MBA Specializations

Specializations require 12 units with at least nine units of graduate course work in one area. These specializations are only available in the evening program.

Consumer Affairs

Requirements:
- Take nine elective units selected from the following:
  - FCS 520, FCS 525, FCS 526, FCS 529, FCS 563, FCS 600.

Fashion Merchandising and Design

Requirements:
- Take nine elective units selected from the following:
  - FCS 555, FCS 558, FCS 563, FCS 600.

Finance

Requirements:
- Take nine elective units selected from the following:
  - FIN 620, FIN 630, FIN 650, FIN 690.

Health Care Management

Requirements:
- Take the following course:
  - HCA 502 The Health Care System (3)  
  Prerequisites: None.
Take any two of the following courses:
HCA 536, HCA 537, HCA 550, HCA 552.

Health Science
Requirements:
Take nine elective units selected from the following:
HSC 500, HSC 507, HSC 535, HSC 625.

Hospitality Management
Requirements:
Take nine elective units selected from the following:
FCS 563, FCS 574, FCS 577, FCS 600.

Human Resources Management
Requirements:
Take nine elective units selected from the following:
HRM 654, HRM 655, HRM 657.

Information Systems
Requirements:
Take nine elective units selected from the following:
IS 545, IS 550, IS 564, IS 580, IS 584.

Management
Requirements:
Take nine elective units selected from the following:
MGMT 542, MGMT 543, MGMT 646; HRM 657, SCM 611, SCM 614.

Marketing
Requirements:
Take nine elective units selected from the following:
MKTG 663, MKTG 665, MKTG 666, MKTG 667, MKTG 668, MKTG 669, MKTG 675, MKTG 695.

Recreation and Leisure Studies
Requirements:
Take the following course:
REC 571 Philosophy, Issues and Trends
Prerequisites: None
Take six elective units selected from the following:
REC 521, REC 527, REC 528, REC 567, REC 569, REC 573.

V. Capstone
Students must take following as the last or capstone course:
GBA 699 Integrated Analysis (3)
Prerequisites: Graduate business standing. Student shall have completed all 2nd year core classes. Classified MBA status in the last semester or within six units of completion of the 33-unit minimum graduate program and advancement to candidacy.

Students must complete the Second Year Core and Advance to Candidacy before enrolling in GBA 699. In this comprehensive analysis, the student will demonstrate technical skills as they integrate the knowledge obtained in all the functional areas of business. Students will research a real company, collect data, conduct analysis, and offer improvement recommendations. A written research project report and oral presentation is required. Students must obtain a grade of "B" or better in GBA 699 in order to receive an MBA degree. Application for acceptance into GBA 699 must be filed in the CBA Graduate Programs Office before the end of the fourth week of instruction in the semester preceding enrollment in the course. Application forms and advisement relating to this important requirement are available in the Graduate Programs Office.

VI. Time Limitation
All courses on the official student program (Advancement to Candidacy) must be completed within seven years of commencement of the first class toward fulfillment of the Second Year Core requirement.

Master of Business Administration / Master of Fine Arts in Theatre Management
For requirements, see description in the Theatre Arts section of this catalog.

College of Business Administration Courses (CBA)

UPPER DIVISION

300. International Business (3)
Introduction to nature, dimensions, and environment of international business. Emphasis on business functions, practices, and decisions as influenced by cultural, political, economic, social, and institutional factors in various parts of world.
Letter grade only (A-F).

397. Junior Honors Seminar (3)
Prerequisite: Acceptance into the CBA Honors Program.
Empirical, theoretical, and applied research methodology: fundamentals and advanced topics. Visits by faculty and business professionals focus on current issues and methods for solving business problems. Literature review and written proposal required for Honors Thesis.
Letter grade only (A-F).

400. Business Ethics (3)
Prerequisites: GE Foundation requirement, at least one Explorations course, consent of instructor.
Various types of ethical dilemmas that take place in business organizations and acquire concepts and tools needed to manage these complex value conflicts for the well being of individuals, organizations, and society.
Same course as PHIL 400. Not open for credit to students with credit in PHIL 400. Letter grade only (A-F).

401A. Ethical Leadership (2)
Prerequisite: Consent of instructor.
Explores ethical leadership challenges related to business, technology, values, relationships, and healthcare. Team-building retreat and networking with guest speakers are integral to the class. Students are required to complete both CBA 401A and CBA 401B within the same academic year.
Letter grade only (A-F).

401B. Ethical Leadership (2)
Prerequisites: CBA 401A with a grade of "C" or better in the immediately preceding fall semester and consent of instructor.
Continuation of CBA 401A. Explores ethical leadership challenges in media, education, government, and management. Community service and networking with guest speakers are integral to the class. Students required to complete CBA 401A and CBA 401B within the same academic year.
Letter grade only (A-F).
485. International Collegiate Business Strategy Competition (3)
Prerequisites: Upper Division Standing, MGMT 300, MKTG 300, IS 301, ACCT 201, and consent of instructor. Students must apply to be in the class.
Student teams run a simulated manufacturing company and compete for best performance against teams from other universities. Company financial performance, a written business plan, an annual report and a presentation are evaluated by a panel of judges.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

493. Business Internship (1-3)
Prerequisites: Classified business major or minor, consent of instructor.
Qualifying students placed in career-related paid or unpaid assignments in private or public agencies or businesses. Organized plan utilizing series of seminars and learning agreements required with selected reading and writing assignments.
Credit/No Credit grading only. May be repeated to a maximum of 6 units. A minimum of 120 hours internship experience per semester is required.

494. Selected Topics - Short-Term Study Abroad (3)
Prerequisite: None.
Topics of current interest in business administration selected for intensive study, linked to a group study abroad experience in a country such as China, France, Germany, Thailand and Vietnam.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics and study sites announced in the Schedule of Classes.
   A. China
   B. Germany

495. Selected Topics (3)
Prerequisites: Consent of instructor, IS 301.
Topics of current interest in business administration selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

497. Senior Honors Seminar I (3)
Prerequisites: CBA 397, IS 301.
Continuation of CBA 397, special emphasis on sampling, instrumentation, and data analysis. Topics covered may vary year-to-year. Perform majority of data collection and preliminary data analysis for honors thesis.
Letter grade only (A-F).

499. Senior Honors Seminar II (3)
Prerequisites: CBA 497, IS 301.
Completion of Honors Thesis. Data analysis completed, findings interpreted relative to research hypotheses; final report is submitted. Attention to preparing manuscripts for publication, academic review process, and making professional presentations. Learning by illustration and application. Visits by faculty and business leaders.
Letter grade only (A-F).

Graduate Business Administration Courses (GBA)

GRADUATE LEVEL

500. MBA Orientation (3)
Prerequisite: Graduate business standing.
Presents foundations in leadership, motivation, ethics and social responsibility, theory of the firm, foundations in communication and teamwork, spreadsheet analysis and modeling, case analysis and basic research methods.
Letter grade only (A-F).

600. Sustainability and the Business Organization I (3)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Integrates skills from the various business functional areas to address the complexity of decision making for the organization and its stakeholders to meet the goal of sustainable development, where sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
Letter grade only (A-F).

601. Sustainability and the Business Organization II (3)
Prerequisites: Graduate business standing, GBA 600, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Continuation of GBA 600. Integrated systems approach to managerial decision making with the goal of sustainable development that meets current business needs while simultaneously ensuring availability of resources for future generations.
Letter grade only (A-F).

602. Globalization Global Business I (3)
Prerequisites: Graduate business standing, and completion of first year core.
Examines globalization and global business from both societal and managerial perspectives. Includes lectures, case studies, projects, exercises, reports, and presentations.
Letter grade only (A-F).

603. Globalization Global Business II (3)
Prerequisites: Graduate business standing, and completion of first year core.
Examines globalization and global business from both societal and managerial perspectives. Includes lectures, case studies, projects, exercises, reports, and presentations.
Letter grade only (A-F).

604. Customer Relationship Management I (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Explores the interrelated activities processes in supply chain management and customer relationships management. Customer privacy (accounting, information systems, management, and marketing) as pertains to CRM formulation, implementation, evaluation, and control.
Letter grade only (A-F).

605. Customer Relationship Management II (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Continuation of GBA 604. Explores the interrelated activities processes in supply chain management and customer relationships management. Customer privacy (accounting, information systems, management, and marketing) as pertains to CRM formulation,
implementation, evaluation, and control.
Letter grade only (A-F).

630 Technology-based Business Model: Developing and Financing (3)
Prerequisite: Graduate standing.
Introduction to technology-based business models. Their development and financing by identifying high potential technology-intensive business opportunities. For future managers, investors, and those who have engineering and science background. Case studies, lectures, workshops, and projects that involve real world business ideas.
Letter grade only (A-F).

640. Electronic Commerce (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
E-commerce as an integrated subject; electronic commerce business models and concepts; technology infrastructure including data communications, e-commerce security and business transaction systems; internet marketing concepts, consumer behavior, and marketing communications; ethical, social, legal, and organizational issues; e-commerce strategy and implementation.
Letter grade only (A-F).

641. Mergers and Acquisitions (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
An integrated course on mergers and acquisitions. Students will develop an in-depth knowledge of corporate restructuring. Topics include valuation of companies, corporate acquisition financing, acquisition accounting, and short-term and long-term impact analysis of financial statements. Special topics include reverse mergers and spin-offs.
Letter grade only (A-F).

642. The Innovative Organization (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Overview of innovation journey, including strategies and processes, models and methods for change, implementation, and new business-model creation; new product/service development processes, including marketing research, financial analysis, creating and managing brand identity, and strategic issues; development of an innovation plan.
Letter grade only (A-F).

643. Global Investments and Financial Modeling (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, IS 615, MGMT/HRM 615, MKTG 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Integration of international investment management and financial modeling. Investment management theories and concepts from a global perspective. Application of theory and concepts through hands-on modeling approaches using real-world data.
Letter grade only (A-F).

644. Financial Statement Analysis (4)
Prerequisites: Graduate business standing, ACCT 615, FIN 615, Intermediate Microeconomics, completion of all relevant toolboxes.
Focuses on the content and analysis of publicly available financial statement data. Students will learn analytical tools to assess a firm's profitability and risk and to value the firm's common stock using valuation models.
Letter grade only (A-F).

646. Understanding the Social Lives of Brands (3)
Prerequisites: Graduate business standing, MKTG 615.
Brand-centered marketing course intending to develop an integrated understanding of brands as cultural products and their relationship to consumers in product usage contexts. Consideration of the relationship between brand usage contexts and brand equity.
Letter grade only (A-F).

670. Professional Development: Career Management (1)
Prerequisite: Graduate business standing.
This professional development course is designed to support students in their near and long-term career planning through self-assessment, reflection, career research, engagement with established professionals in the student's chosen field and preparation for job search and life-long career resilience.
Credit/No Credit grading only.

671. Leadership Foundations (1)
Prerequisite: Graduate business standing.
This course examines individual, group, and organizational dimensions of leadership, provides an opportunity to develop skills that support effective leadership, and initiates a process for developing leadership competence during the MBA Program and beyond.
Credit/No Credit grading only.

685. International Collegiate Business Strategy Competition (3)
Prerequisites: Graduate business standing. Students should have completed most of the first year of courses. Consent of instructor is required. Students must apply to be in the class.
Using simulation, student teams run simulated company and compete for best performance against other university teams. Financial, marketing, production, and management decision-making, business plans, annual reports, and presentations evaluated by judges at competitive event.
Letter grade only. May be repeated to a maximum of 6 units in different semesters.

690. Seminar in an MBA International Experience (3)
Prerequisites: Graduate business standing, completion of MBA Second Year Core.
The active participation in the study of international business expansion through the study of various factors influencing a particular economy's position and industries and subsequent first-hand encounters in that same economy.
Letter grade only (A-F).

694. Selected Topics – Short-Term Study Abroad (3)
Prerequisites: Graduate business standing.
Topics of current interest in business and management selected for intensive group study in a particular country. The international experience enables students to apply concepts learned in classroom to the business and cultural environment of the host country.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters.

A. China
B. Germany

695. Selected Topics (1-3)
Prerequisite: Graduate business standing.
Topics change each offering and in the absence of significant duplication.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.
698. Thesis (2-4)
Prerequisites: Graduate business standing, GBA 601.
Planning, preparation, and completion of a thesis in business administration.

699. Integrated Analysis (3)
Prerequisites: Graduate business standing. Student shall have completed all 2nd year core classes. Classified MBA status in the last semester or within six units of completion of the 33-unit minimum graduate program and advancement to candidacy.
Study of wide range of business problems and formulation of solutions. Integration of knowledge from all functional areas of business and its application to complex business problems arising out of changing technology, competitive market conditions, social changes and governmental actions.
A grade of "B" or better is required for successful completion. Serves as required terminal examination for College of Business Administration graduate candidates. Project is required. Students must file application for entry into GBA 699 no later than the fourth week of instruction in the semester preceding the one in which GBA 699 will be taken. Application forms are available in the Graduate Programs Office. Letter grade only (A-F).

Business Law Courses (BLAW)

LOWER DIVISION

220. Introduction to Law and Business Transactions (3)
Law and the American legal system in today's business world. Contracts, sales, and commercial paper. Examination of the role and function of the judiciary, elements of civil and criminal lawsuits, and other emerging areas of the law, including alternative dispute resolution.
Not open for credit to students with credit in FIN 220. Letter grade only (A-F).

UPPER DIVISION

309. The Consumer in the Legal and Economic Environment (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses; upper-division standing.
Incorporates an integrated coverage of the economic, legal, ethical and regulatory environment of consumers in avoiding and resolving disputes regarding fraudulent transactions, financial matters, personal and real property contracts, torts, credit and investment issues, and family relationships. Team taught.
(Lecture-Discussion 3 hours) Same course as CAFF 309. Not open for credit to students with credit in CAFF 309 or FIN 309.

320. Legal and Regulatory Environment of Business (3)
Forms of business organizations, employment law, securities law, environmental law, anti-trust issues, and international transactions. Social, international and economic influences on domestic and multinational corporations. Exploration of relationship of government to business. Introduction to business ethics.
Not open for credit to students with credit in FIN 320. Letter grade only (A-F).

424. International Legal Environment of Business (3)
Prerequisites: BLAW 320, IS 301.
Subsidiaries, joint ventures and other forms of international business. Effects of treaties, laws and policies of governments on business operations. Resolution of business and investment disputes, protection of property rights, the financing and taxing of international operations, and ethical issues.
Not open for credit to students with credit in FIN 424. Letter grade only (A-F).

GRADUATE LEVEL

520. Legal, Regulatory, and Ethical Environment of Business (3)
Prerequisite: Graduate business standing.
Legal and regulatory environment in which managers must operate. Constitutional and judicial structures for resolving disputes, effect of governmental and political policies, and liability encountered by business in various defined areas of substantive law. Ethical issues faced by business.
Not open for credit to students with credit in FIN 520. Letter grade only (A-F).

Department Graduate-Level Courses

Accountancy Courses (ACCT)

500. Financial Accounting (3)
Prerequisite: Graduate business standing.
Objective is to develop skills required to interpret and analyze the information contained in the financial statements, with emphasis on the use of accounting information as an aid to business decisions. Laboratory and/or class computer applications required. Letter grade only (A-F).

601. Corporate Governance and Financial Reporting (4)
Prerequisite: MSA standing
Introduction to corporate governance, SEC and other reporting requirements of complex accounting policies in the US including exposure to financial accounting research relating to earnings quality and the stock market, current scandals and frauds.
Letter grade only (A-F).

602. Advanced Cost Accounting (4)
Prerequisite: MSA standing
Covers the advanced topics in planning, budgeting and cost control of decision making using a quantitative analysis approach. Emphasis is placed on development of critical thinking and analytical skills in problem solving with cost issues.
Letter grade only (A-F).

603. Financial Statement Analysis (4)
Prerequisite: MSA standing
Focuses on the content and analysis of publicly available financial statement data. Students will learn analytical tools to assess a firm's profitability and risk and to value the firm's common stock using valuation models.
Letter grade only (A-F).

604. Forensic Accounting (2)
Prerequisite: MSA standing
Introduction to the fundamental forensic accounting skills employed by accountants. Specific topics include professional responsibilities of forensic practitioners, fraud prevention, detection, and response, business valuation, damage computations, and the accountant as an expert witness.
Letter grade only (A-F).

605. Seminar in Accounting Information Systems (4)
Prerequisite: MSA standing
Familiarization with accounting information systems analysis, design, development, and implementation. Studied through use and application of computers.
Letter grade only (A-F).
610. Managerial Accounting and Control (3)
Prerequisite: Graduate business standing.
Introduces basic cost concepts of managerial accounting using a quantitative analytical approach. Topics include costing systems, cost-volume-profit analysis, budgeting, cost control, and compensation with focus on management decision-making.
Laboratory and/or class computer applications required. Not open for credit to students with credit in ACCT 510. Letter grade only (A-F).

611. Seminar in Auditing and Assurance Services (4)
Prerequisite: MSA standing.
Selected conceptual issues in auditing and assurance services. Differences between audit and assurance services. Public accountant responsibilities. Problems and cases on engagement to compile or review financial statements of nonpublic entities under accounting and review services standards.
Letter grade only (A-F).

612. Governmental and Non-Profit Accounting (4)
Prerequisite: MSA standing.
Concepts and problems in the accounting for local, state, and government agencies and for not-for-profit institutions including colleges and hospitals.
Letter grade only (A-F).

615. Accounting for Managers (4)
Prerequisite: Graduate business standing.
Presents essential accounting concepts for managers in organizations of all types. Reviews use of accounting information to plan, control, and evaluate performance and comply with regulatory requirements. Examines how accounting information facilitates management decision making.
Letter grade only (A-F).

621. Tax Research and Planning (4)
Prerequisite: MSA standing.
Develops the technical and research skills needed to address contemporary tax issues. It acquaints students with federal tax policies, procedures and authorities governing tax practice.
Letter grade only (A-F).

622. Taxation of Partnerships & S Corporations (4)
Prerequisite: MSA standing.
Focuses on the federal income taxation of partnerships, S corporations, and their owners/beneficiaries. Students will learn why so many closely-held businesses and real estate investments are owned by partnerships or LLCs.
Letter grade only (A-F).

623. Taxation of C Corporations and Shareholders (4)
Prerequisite: MSA standing.
Focuses on the federal income taxation of C corporations and shareholders. It also focuses on reading and interpreting tax laws to determine tax consequences of completed transactions and to formulating tax-planning strategies.
Letter grade only (A-F).

631. Information Systems Governance and Control (4)
Prerequisite: MSA standing.
Reviews governance and control issues in accounting information systems, examines issues related to the Sarbanes-Oxley Act 2002 (SOX), and applies governance frameworks including COSO, COBIT and ITIL to governance and control of information systems.
Letter grade only (A-F).

632. Information Systems Auditing (4)
Prerequisite: MSA standing.
Reviews processes for performing audits of information systems, including obtaining evidence on the reliability of the systems, safeguarding of information assets, and constructing risk profiles of information systems applications.
Letter grade only (A-F).

633. Accounting Database Systems (4)
Prerequisite: MSA standing.
Examines the architecture of enterprise information. Semantic and syntactic modeling of enterprise economic phenomena, relational database technology and database design for business systems, business process analysis patterns and implementation compromises.
Letter grade only (A-F).

634. Advanced Spreadsheet Analysis (4)
Prerequisite: MSA standing.
Presents advanced spreadsheet and analysis techniques such as pivot tables, simulations, programming with visual basic, and the use of macros to solve accounting-related problems.
Letter grade only (A-F).

680. Financial Reporting and Analysis (3)
Prerequisite: Graduate business standing.
In-depth understanding of accounting standards with focus on analytical skills to analyze publicly available financial statement data. Students will learn analytical tools to assess a firm’s profitability and risk and to value the firm’s common stock.
Letter grade only (A-F).

695. Selected Topics in Accountancy (1-3)
Prerequisites: Graduate business standing and consent of instructor.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

697. Directed Studies (1-3)
Prerequisites: Graduate business standing and consent of instructor.
Individual study under faculty direction.
Letter grade only (A-F).

699. Accountant's Professional Responsibilities and Ethics (4)
Prerequisites/Corequisites: MSA standing, ACCT 601, ACCT 602, ACCT 603, ACCT 604, ACCT 605, ACCT 611, ACCT 612.
A case-based capstone course that examines different theories of the accountant’s professional responsibilities and ethics. Accountants’ ethical reasoning is examined along with the legal and regulatory obligations.
Letter grade only (A-F).

Finance Courses (FIN)

501. Financial Management Concepts (3)
Prerequisite: Graduate business standing.
Integration of computers, management information systems and cases to: (1) time value of money, risk, valuation, cost of capital, capital structure; (2) capital budgeting; (3) long-term financing decisions; (4) working capital policy and management; (5) financial analysis and planning.
Letter grade only (A-F).
600. Seminar in Business Finance (3)
Prerequisite: Graduate business standing.
Financial theory and management: (1) time value of money, risk, valuation, cost of capital, capital structure; (2) capital budgeting; (3) long-term financing decisions; (4) working capital policy and management; (5) financial analysis and planning; (6) special topics.
Letter grade only (A-F).

615. Financial Management (4)
Prerequisites: Graduate business standing and demonstrated basic knowledge of finance.
An overview of financial theory and management. Building from the wealth-maximization goal and agency theory, the course focuses on using financial statement information in a variety of ways to engage in effective financial management. Topics include: (1) financial analysis and planning; (2) time value of money, (3) risk and returns, (4) valuation, (5) cost of capital and capital structure; (6) capital budgeting; and (7) long-term financing decisions. While some topics are introduced in other courses, the discussion is extended and deepened in this course. Also provides finance fundamentals elaborated on later in the program.
Letter grade only (A-F).

620. Capital Budgeting (3)
Prerequisites: Graduate business standing, FIN 600.
Theory of capital budgeting within the framework of the firm. Cost of capital determination and logic of expansion vs. growth, and equity financing vs. debt financing. Computer applications required.
Letter grade only (A-F).

630. Seminar in Financial Forecasting (3)
Prerequisites: Graduate business standing, FIN 600.
Research projects in industry, individual company, product and commodity areas. Computer applications required.
Letter grade only (A-F).

650. Seminar in Investments (3)
Prerequisites: Graduate business standing, FIN 600.
Security analysis, portfolio planning, balance and adjustment as related to (1) individual circumstances of the investor, (2) specific market conditions, and (3) broader financial aspects of the economy. Presentation and interpretation of student reports on selected topics. Computer applications required.
Letter grade only (A-F). Course fee may be required.

690. Seminar in International Finance (3)
Prerequisites: Graduate business standing, FIN 600.
Real and monetary factors in the finance of international business, international capital markets, movement of funds and special problem areas.
Letter grade only (A-F).

695. Selected Topics in Finance (3)
Prerequisites: Graduate business standing and consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in Schedule of Classes.

697. Directed Studies (1-3)
Prerequisites: Graduate business standing and consent of instructor.
Individual study under direction of faculty.
Letter grade only (A-F).

699A-B. Applied Portfolio Management (3-3)
Prerequisites: FIN 699A: Graduate business standing; FIN 520, FIN 600, FIN 650; consent of instructor and department chair.
FIN 699A: Graduate business standing; FIN 699A; consent of instructor and department chair.
FIN 699B offered in Fall and accepted students must enroll in FIN 699B in Spring.
Participation in management of actual investment portfolio. Research, monitor, and analyze securities and make, buy and sell recommendations for a student-managed investment fund. Contribute to publication of semi-annual fund report. Market, sector and firm analysis with presentations and outside research.
Letter grade only (A-F).

Human Resources Management Courses (HRM)

652. Seminar in Human Resources Management (3)
Prerequisite: Graduate business standing.
Decisions and actions that impact management. Problems of productivity, employee commitment, employee development, employment law, and compensation. Staffing, training and development, performance appraisal, counseling, leadership and motivation, reward systems, participation and delegation, and discipline. Discussion, cases, simulations, and presentations.
Letter grade only (A-F).

654. Seminar in Negotiation and Conflict Management (3)
Prerequisite: Graduate business standing.
Various forms of opposition interactions within organizations. Interpersonal, intragroup, and intergroup conflict. Distinguishing between functional and dysfunctional conflict, identifying sources and causes of conflict, and examining alternative styles and methods of conflict management. Discussion, cases, simulations, and presentations.
Letter grade only (A-F).

655. Seminar in Motivation and Organization Change (3)
Prerequisite: Graduate business standing.
Human motivation and organizational change. Traditional and modern theories of work motivation and change. Psychology and management of motivation, organizational change and development. Management skills, policies, and organizational characteristics that facilitate the creation of motivating, flexible organizations.
Letter grade only (A-F).

657. Seminar in Leadership Skills (3)
Prerequisite: Graduate business standing.
Development of leadership abilities. Effectiveness of numerous approaches to leadership from both managerial and psychological viewpoints. Understanding leadership styles and abilities of self and others through assessment. Personality, situational factors, group processes, followership, and implications for leadership training.
Letter grade only (A-F).

697. Directed Studies (1-3)
Prerequisites: Graduate business standing and consent of instructor.
Individual study under the direction of the faculty.
Letter grade only (A-F).
520. Spreadsheet Modeling (3)
Prerequisites: Graduate business standing, IS 601.
Advanced topics in spreadsheet tools and techniques, such as advanced functions, solver and curve fitting. To model and solve business problems in optimization, forecasting, customer profitability, customer loyalty and online reviewer behavior.
Letter grade only (A-F).

531. Professional Communication (3)
Prerequisite: Graduate business standing.
In-depth study of effective professional communication practices within diverse organizations and professional settings. Techniques and practices of professional etiquette, ethics, interpersonal and collaborative relationships, and targeted writing and presentations are emphasized. Strategies for work-life issues and evolving communication technologies highlighted.
Letter grade only (A-F).

540. Business Application Programming (3)
Prerequisite: Graduate business standing.
Introduce Object-oriented programming concepts and constructs. Analyze, design, and implement Windows-based business applications that fully utilize the Graphical User Interface tools and techniques. Develop a fully functioning enterprise information system that utilizes advanced programming techniques for interacting with the database.
Letter grade only (A-F).

545./445. Internet Applications Development (3)
Prerequisites: Graduate business standing, knowledge of programming, and consent of instructor.
Theory and applications of the Internet. Applications development using tools such as HTML and FrontPage. Use and development of Intranet applications in the Client/Server environment. Issues such as Internet business opportunities, network security, home page maintenance, Internet database interface and cooperative computing.
Letter grade only (A-F).

550. Business Telecommunications Management (3)
Prerequisites: Graduate business standing, and IS 602 or equivalent.
Introduction to the technologies and applications of telecommunications and networking. Infrastructure planning and operation of organizational telecommunication networks. Management and control of Internet servers and mobile systems. Telecommunication regulation and standards.
Letter grade only (A-F).

556. Information Systems Security and Assurance (3)
Prerequisite: Graduate business standing.
Letter grade only (A-F).

557. Wireless Systems and Mobile Applications (3)
Prerequisites: Graduate business standing, IS 540.
Topics include technical and business aspects of wireless networking and mobile applications to support business operation and business management. Mobile application framework, mobile application design and development, human interface design, and current technology issues.
Letter grade only (A-F).

564./464. Network Modeling and Simulation (3)
Prerequisites: Graduate business standing, IS 601.
Fundamentals of simulation methodology for performance and feasibility study of business models. Basic probability distributions, random number generation, model formulation, evaluating results, validations, waiting-line simulation, and computer network performance measurement via simulation and use of computer software simulation packages.
Letter grade only (A-F).

570. Business Intelligence (3)
Prerequisites: Graduate business standing, IS 601.
Extract useful information (business intelligence BI) from large volumes of data or internet using BI software. Theories and applications in business intelligence and business analytics. Topics include recommender system, collaborative filtering, web text mining, social network analysis, advance customer analytics.
Letter grade only (A-F).

580. Management Support Systems and Database Management Systems (3)
Prerequisites: Graduate business standing, and IS 602 or equivalent.
Use of information and database techniques to support management decision making. Decision support systems, groupware, expert systems, executive information systems, database management systems (DBMS), database analysis and design, database manipulation languages (SQL and QBE), and data warehousing.
Letter grade only (A-F).

581. Advanced Database Management (3)
Prerequisites: Graduate business standing, IS 580.
Letter grade only (A-F).

582. Enterprise Systems (3)
Prerequisites: Graduate business standing, IS 540.
Advanced theories and application of enterprise systems. Understanding, design, and development of major business processes in enterprise systems. Issues and management of enterprise systems adoption. Enterprise systems configuration and customization. Lectures, hands-on, and case studies.
Letter grade only (A-F).

583. Advanced Business Programming (3)
Prerequisites: Graduate business standing, IS 540.
Advanced topics in business application development. Emphasis on design and development of applications to improve business operation and new business models. Topics include business process analysis, application design, application development, human interface design and current technical issues.
Letter grade only (A-F).

584/484. eBusiness: Applications and Management (3)
Prerequisites: Graduate business standing.
Letter grade only (A-F).
585. System Analysis and Design (3)
Prerequisites: Graduate business standing.
Introduction to current and emerging practices, concepts, and methodologies of systems analysis and design. Requirements analysis, business process modeling, conceptual and physical design, systems implementation and maintenance, project management and teamwork, roles and responsibilities of systems analysts.
Letter grade only (A-F).

595. Information Systems Project (3)
Prerequisites: Graduate business standing, IS 585.
Theories and practice in managing large scale information systems projects. Issues include cost estimation, personnel management, requirement analysis, system design methods, quality control of software projects, system validation, and configuration management.
Letter grade only (A-F).

601. Quantitative Methods for Managerial Decision Making (3)
Prerequisite: Graduate business standing.
Statistical analysis includes probability, estimation, hypothesis testing, forecasting and decision process. Management sciences include quantitative modeling, math programming, decision support systems and simulation applicable to various business functions. Use of computer software packages as analytical tools.
Letter grade only (A-F).

602. Management of Information Systems (3)
Prerequisite: Graduate business standing.
Foundation and infrastructure of information technology applied to strengthen competitiveness. Effective utilization of strategic information systems, telecommunications, system development process, database concepts and electronic commerce to enhance organizations' operations.
Letter grade only (A-F).

615. Information and Decision Systems (4)
Prerequisite: Graduate business standing.
Information and decision technology systems used in managerial decision making. Data-related concepts and subjects. Role of information systems in business. Data analysis and interpretation using statistical and quantitative techniques. Use of appropriate software.
Letter grade only (A-F).

645. Internet Applications in Business (3)
Prerequisite: Graduate business standing, IS 540.
Letter grade only (A-F).

664. Modeling and Simulation (3)
Prerequisite: Graduate business standing, IS 601.
Theory with hands-on lab sessions to explore technical skills to understand and model information systems. Introduction to the techniques and modeling tools to construct and analyze performance models of telecommunication networks, business decision-making, logistics, supply chain systems.
Letter grade only (A-F).

684. Electronic Business (3)
Prerequisite: Graduate business standing, IS 602.
Letter grade only (A-F).

695. Selected Topics in Information Systems (3)
Prerequisites: Graduate business standing and consent of instructor.
Letter grade only (A-F). Topics announced in the Schedule of Classes.

697. Directed Studies (1-3)
Prerequisites: Graduate business standing and consent of instructor.
Individual study under the direction of the faculty.
Letter grade only (A-F).

Management Courses (MGMT)

500. Business Policies, Operations and Organizations (3)
Prerequisite: Graduate business standing.
Recommended Preparation: IS 310.
Theory and philosophies of administrative organizations systems, information systems, management functions, decision making, strategy and policy formulation, operations planning, and control systems.
Letter grade only (A-F).

541. Industrial Logistics (3)
Prerequisites: Graduate business standing, and MGMT 500 or equivalent.
Systems analysis and synthesis of the general logistics system containing the marketing, production, and transportation activities. Definition of system components of outputs, activities and inputs. Specification and quantification of the major functional relationships interrelating these components.
Letter grade only (A-F).

542. Seminar in Entrepreneurship and New Venture Creation (3)
Prerequisites: Graduate business standing, and MGMT 500 or equivalent.
Explores dimensions of new venture creation and growth. Covers basics of entrepreneurial processes. Teaches students skills in identifying opportunities, obtaining resources, managing and growing entrepreneurial organizations, and creating value for stakeholders. Students choose businesses and develop new venture plans.
Letter grade only (A-F).

543. International Business Policy (3)
Prerequisites: Graduate business standing, and MGMT 500 or equivalent.
Current theory and principles of international business management pertaining to problems of formulating policy and developing strategies and tactics in the multinational corporation. Case studies, readings, logistic analysis and research report.
Letter grade only (A-F).
615. Fundamentals of Management, Organizational Behavior and Human Resources (4)
Prerequisite: Graduate business standing.
Functions of management, with emphasis on theory from human resource management and organizational behavior. Strategy formulation, managing change, managing performance, hiring, firing, and motivating employees. Case studies, readings, simulation exercises, diagnostic reports, and presentations.
Letter grade only (A-F).

646. Seminar in Managing Mergers and Acquisitions (3)
Prerequisites: Graduate business standing, and MGMT 500 or equivalent.
Reasons for trend of mergers and acquisitions. Examination of the merger and acquisition process. Coordination and integration across business boundaries, exploiting synergies, strategic vs. operating focus, hierarchical structure of combined companies, learning transfer, and the rationalization of shared activities.
Letter grade only (A-F).

647. Seminar in Strategic Management (3)
Prerequisites: Graduate business standing, and MGMT 500 or equivalent.
Analysis of planning and control systems in management. Use of case studies and problems.
Letter grade only (A-F).

655. Selected Topics in Management (3)
Prerequisite: Graduate business standing.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

697. Directed Studies (1-3)
Prerequisites: Graduate business standing and consent of instructor.
Individual study under the direction of the faculty.
Letter grade only (A-F).

Marketing Courses (MKTG)

500. Marketing Concepts (3)
Prerequisite: Graduate business standing.
Overview of the decision process in marketing. Consideration of functional areas and their interaction with the total operations of the firm. Introduction to the development of marketing strategy and planning.
Letter grade only (A-F).

615. Marketing Management (3)
Prerequisites: Graduate business standing, basic Accounting, basic Finance, basic Statistics, Intermediate Microeconomics.
Decision process in marketing, functional areas and interaction with the total operations of the firm. Solving of practical, domestic and international, profit- and non-profit-oriented marketing problems. Sophisticated strategic and tactical, qualitative and quantitative case analysis, simulation, and discussion. Marketing principles and technologies.
Letter grade only (A-F).

661. Seminar in Marketing Policies (3)
Prerequisites: Graduate business standing, MKTG 500.
Solving practical, profit-oriented problems in marketing. Sophisticated case analysis and discussion. Application of marketing principles and technologies, including information systems, databases, behavioral theories, and management techniques.
Letter grade only (A-F).

663. Seminar in Social and Digital Media Marketing (3)
Prerequisites: Graduate business standing, MKTG 500.
The role of social and digital media in marketing such as e-commerce, search optimization, mobile applications, online communication, and gaming. Digital analytics of business model, and future trends.
Letter grade only (A-F).

665. Seminar in Marketing Research (3)
Prerequisites: Graduate business standing, MKTG 500, and IS 601.
The role of research in the solution of marketing problems. Research methods in collecting, analyzing, and interpreting information for business use. Survey and experimental approaches included. Case studies and/or class projects required.
Letter grade only (A-F).

666. Seminar in International Marketing (3)
Prerequisites: Graduate business standing, MKTG 500.
The study of global marketing theory and practice. Analysis of cultural foundations, foreign entry, local marketing, and global marketing management. Emphasis on cross-cultural differences in consumer behavior, importance of emerging markets, and public policy issues.
Letter grade only (A-F).

667. Marketing and Sustainability
Prerequisite: Graduate standing and consent of instructor.
Topics in sustainability and marketing. Integration of profit, environment and society into marketing decision-making. Analysis and development of sustainable business situations and alternatives. Learn to develop realistic and feasible sustainable marketing strategies.
Letter grade only (A-F).

668. Seminar in Consumer Behavior (3)
Prerequisites: Graduate business standing, MKTG 500.
Topics in the behavioral sciences as they apply to marketing. Application of psychological, sociological, anthropological, and economic theories and models to the understanding of buyer behavior and the development of marketing strategy.
Letter grade only (A-F).

669. Seminar in Strategic Planning (3)
Prerequisites: Graduate business standing, MKTG 661.
The role and use of marketing research and information systems as the basis for development and implementation of marketing strategy. Case studies and/or class projects required.
Letter grade only (A-F).

675. Seminar in Marketing Analytics (3)
Prerequisite: IS 601.
Marketing Analytics is a scientific approach that connects customer data and competitive information to drive strategic decision making in modern enterprises. The course explores customer data analysis techniques and their theoretical foundations that are applied to real world business problems. The ethical implications related to collecting and utilizing customer data are examined.
Letter grade only (A-F).

695. Selected Topics in Marketing (3)
Prerequisites: Graduate business standing and consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.
697. Directed Studies (1-3)
Prerequisites: Graduate business standing, consent of instructor and department chair.
Individual study under the direction of the faculty.
Letter grade only (A-F).

Operations and Supply Chain Management (SCM)

500. Research Methods for Supply Chain Management (3)
Prerequisite: Graduate Standing.
Applications of research methods to topics in supply-chain management and logistics, with an emphasis on descriptive and inferential statistics.
Letter grade only (A-F).

520. Business Economics (3)
Prerequisite: Graduate Standing.
Development of microeconomic analytic tools and their application to problems in business and management. Topics include unconstrained and constrained economic optimization, capital theory, product and factor markets, market structures, forecasting, and cost-benefit analysis.
Letter grade only (A-F).

611. Operations Planning and Analysis (3)
Prerequisite: Graduate Standing.
Advanced topics on work system design, business process reengineering, and using analytics to make operational decisions such as inventory control, capacity management and scheduling. Emerging operations practices in various industries and hands-on software experiences are included.
Letter grade only (A-F).

614. Supply Chain Management (3)
Prerequisite: Graduate Standing.
Introduce the concepts, insights and tools for the effective management of the supply chain. Emphasis on both strategic and tactical decisions. Topics include inventory management, value of information, network design, distribution strategies, strategic alliance, revenue management, and international issues.
Letter grade only (A-F).

620. Business Analytics for Supply Chain Management (3)
Prerequisite: Graduate Standing.
Use advanced techniques such as predictive analytics, optimization, and simulation to make data-oriented decisions that improve operational effectiveness and supply chain coordination. Topics include business statistics, Solver, dynamic optimization, and case studies using Arena simulation.
Letter grade only (A-F).

SCM 625. Global Supply Chain Strategy (3)
Prerequisite: Graduate Standing.
Current theory and principles of global business pertaining to problems of formulating and implementing strategies and tactics in multinational corporations. Special emphasis on management of supply chain operations across cultural, economic, and political boundaries. Case studies, readings, and research report.
Letter grade only (A-F).

630. Project Management (3)
Prerequisite: Graduate Standing.
This course focuses on the planning, implementation, and control of projects. Coverage will include project definition, time and cost management, conflict resolution and team processes, scheduling and lifecycle management. Computerized network models and project management software packages are included.
Letter grade only (A-F).

640. Logistics and Transportation Management (3)
Prerequisite: Graduate Standing.
Economic analysis of freight transportation, demand, and cost factors, market structures, public policy and regulation, social and environmental impacts. Introduction to the logistics and economics of goods movement via ocean, surface, air, and intermodal strategies.
Letter grade only (A-F).

657. Seminar in Supply Chain Leadership (3)
Prerequisite: Graduate Standing.
This course emphasizes the interpersonal skills necessary for individuals in supply chain leadership positions. Group processes, situational factors, change management, and leading diverse individuals are discussed. Leadership self-assessment is included to aid understanding of one's own leadership abilities.
Letter grade only (A-F).

699. Capstone Project for Global Supply Chain Management (3)
Prerequisite: Graduate standing or consent of instructor.
A Capstone Project for Global Supply Chain Management. Students will complete a term project that allows them to integrate their knowledge of Global Supply Chain Management. In addition to submitting a written paper, students are required to make an oral presentation of their analysis.
Letter grade only (A-F).
CHEMICAL ENGINEERING
College of Engineering

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Graduate Advisor: Chih-Cheng Lo
Environmental Technology Advisor: Sergio Mendez
General Education Advising: Academic Advising - Horn Center

Career Possibilities
Chemical Engineer • Process Engineer • Automation Control Engineer • Chemical Research Engineer • Chemical Test Engineer • Biochemical Engineer • Biomedical Engineer • Technical Sales • Management • Technical Writer • Quality Control Specialist • Consultant • Safety Engineer • Environmental Engineer • (Some of these careers require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
Chemical engineering is a major that opens the way for many career opportunities. As the name implies, chemical engineers must build a foundation on engineering, science, and math while specializing in the application of chemistry to engineering systems. This is a versatile major that also encourages students to take courses from the other engineering disciplines as well as the biological sciences. In general, chemical engineers integrate their broad knowledge and analytical skills to design, implement and optimize chemical processes that convert raw materials into valuable products in a sustainable manner. Chemical engineers ensure that processes are operated safely and economically with minimum energy consumption and waste emission. Many of our graduates find career opportunities in traditional industries such as petroleum refining, energy production, chemical manufacturing and pharmaceuticals. Because of their diverse technical skill set, our graduates are increasingly finding employment in emerging industries such as alternative energy, biomedical engineering, environmental engineering, semiconductors, materials, and nanotechnology.

Program Educational Objectives
The Chemical Engineering bachelor degree program's educational objective statement is directed towards the career accomplishments and expectations of the alumni. The objectives of the program are that recent alumni become successful in their professional careers, and that they continue on a path of professional development.

The Bachelor of Science in Chemical Engineering program objectives are to produce well-rounded graduates who, after entering the chemical engineering practice, will progress to leadership roles by:
• Applying the knowledge, principles, and skills of chemical engineering to the solution of complex engineering problems;
• Practicing safety, sustainability, and ethics throughout their professional careers;
• Communicating effectively and working collaboratively in multidisciplinary teams;
• Pursuing life-long learning through continued education, professional registration, and participation in professional organizations.

The faculty members of the Department of Chemical Engineering strive to continuously improve the program and the curriculum as well as laboratory facilities to ensure the professional career success of our recent graduates. The goal is to prepare students for a wide range of career routes that use chemical engineering principles with a solid foundation in engineering, math, science, and societal awareness. The scope of this program is broadened by courses from general education as well as specialized technical elective courses in chemical engineering and other engineering disciplines. Students develop teamwork skills and gain interdisciplinary experience particularly in laboratory courses, lecture courses with laboratory components, and the capstone design class that require team projects. This program provides ample opportunities for students to develop communication skills such as oral and poster presentations as well as written technical reports. Students are encouraged to participate in life-long learning activities such as professional meetings on or off campus and field trips. The goal is to have a comprehensive, student-centered program that can allow us to meet the educational objectives.

Chemical Engineering Advisory and Development Council
The Department of Chemical Engineering Advisory and Development Council, consisting of outstanding engineers and executives from industry and government in Southern California, provides guidance to our program. Its mission is to advise and assist in developing the Department and to support its efforts to serve students, the community, and industry. This liaison between the University and industry ensures that industry concerns are addressed in our curricula and provides career guidance for our graduates.

ABET Accreditation
The Bachelor of Science in Chemical Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Other Related Programs
Students interested in obtaining a Minor in Environmental Engineering should refer to the College of Engineering section of this catalog. Students who take required Chemistry courses are most likely eligible for Minor in Chemistry degree. See the College of Natural Science and Mathematics section of this catalog.

Students wishing to pursue advanced study may be interested in the College of Engineering’s Master of Science in Engineering (MSE) degree. Thesis work may be supervised
by chemical engineering faculty. For detailed MSE requirements, see the College of Engineering section of this catalog.

Grade Requirements

In addition to other University requirements, all students must obtain a grade of "C" or better in each prerequisite for any chemical engineering course. Also, required Written English (GE A1), Speech (GE A2), and Interdisciplinary (IC) courses must be taken for a letter grade, not Credit/No Credit.

Undergraduate Programs

Bachelor of Science In Chemical Engineering (120 units)

Major Declaration

Freshmen admission to engineering majors is to a 'pre-major' status (i.e., Pre-Chemical Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student's ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Chemical Engineering must also meet similar major specific requirements. To become fully admitted into the Chemical Engineering major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower-Division Major Requirements:
- MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics and Heat), CHEM 111A (General Chemistry)

General Education Foundations Courses:
- Written and Oral Communication

Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

First-time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

A grade of "C" or better must be achieved in all required courses listed below.

Lower Division:

Take all the following courses:
- CH E 200 Chemical Engineering Fundamentals (3)
  Prerequisites: CHEM 111A, MATH 122, PHYS 151 all with a grade of "C" or better.
- CH E 210 Computer Methods in Chem Engineering (3)
  Prerequisite/Corequisite: MATH 123
- CH E 220 Chemical Engineering Thermodynamics I (3)
  Prerequisite: CH E 200 with a grade of "C" or better.
- CHEM 111A General Chemistry (5)
  Prerequisites: A passing score on the Chemistry Placement Examination and a "C" or better in MATH 113 or MATH 117 or MATH 119A or MATH 122. One year of high school chemistry is strongly recommended.
- CHEM 111B General Chemistry (5)
  Prerequisite: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.
- C E 205 Analytical Mechanics I (Statics) (3)
  Prerequisite: PHYS 151 with a grade of "C" or better.
  Prerequisite/Corequisite: MATH 123.
- ENGR 101 Introduction to Engineering Profession (1)
  Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122
- ENGR 102 Academic Success Skills (1)
  Prerequisite: ENGR 101 with a grade of "C" or better.
- CH E 100 Introduction to Chemical Engineering (1)
  Prerequisite: None.
- MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113, or a grade of "C" or better in MATH 117.
- MATH 123 Calculus II (4)
  Prerequisite: A grade of "C" or better in MATH 122.
- MATH 224 Calculus III (4)
  Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.
- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

Take one of the following choices:
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
  or both of the following:
- EE 210 Electro-Magnetic Foundations in EE (3)
  Prerequisite: PHYS 151 with a grade of "C" or better.
  Corequisites: MATH 123, EE 210L.
- EE 210L Electro-Magnetic Foundations in EE Lab (1)
  Corequisite: EE 210

Take one of the following choices:
- CHEM 220A, CHEM 223A, CHEM 220B, and CHEM 223B
- CHEM 227 and one of the following: BIOL 200, BIOL 205, or BIOL 211

Upper Division:

Take all the following courses:
- CH E 310 Chemical Engineering Thermodynamics II (3)
  Prerequisites: CHE 210, CHE 220 all with a grade of "C" or better.
- CH E 320 Fluids (3)
  Prerequisites: CH E 200, C E 205 all with a grade of "C" or better.
- CH E 330 Separation Processes (3)
  Prerequisite/Corequisite: CHE 310
- CH E 420 Heat and Mass Transport (3)
  Prerequisites: CHE 310, CHE 320 all with a grade of "C" or better.
- CH E 430 Chemical Reactor Kinetics (3)
  Prerequisite: CHE 310
CHE E 440 Chemical Engineering Laboratory I (2)
Prerequisites: CHE 320, CHE 330 all with a grade of "C" or better.

CH E 450 Chemical Engineering Laboratory II (2)
Prerequisites: CHE 440 with a grade of "C" or better.
Prerequisite/Corequisite: CHE 420, CHE 430, and CHE 460

CH E 460 Chemical Process Control (3)
Prerequisites: CHE 420, CHE 430, and (MATH 370A or CHE 480) all with a grade of "C" or better

CH E 470 Chemical Engineering Design (4)
Prerequisites: CHE 330, CHE 420, CHE 430 all with a grade of "C" or better.

CHEM 375 Physical Chemistry for Engineers (3)
Prerequisites: MATH 123, PHYS 151 and either PHYS 152 or EE 210/EE 210L; CH E 220; CHEM 111A/B; and CHEM 220A or CHEM 227, all with grades of "C" or better.

MATH 370A Applied Mathematics I (3)
Prerequisites: A grade of "C" or better in MATH 123. Exclude freshmen.

Take six units from the following courses:
CHE 300, CHE 415, CHE 431, CHE 432, CHE 433, CHE 437, CHE 445, CHE 455, CHE 475, CHE 480, CHE 485, CHE 490;

All students are encouraged to attempt FE Exam. Those who pass the FE Exam before graduation can waive 3 units of elective course.

Minor in Environmental Engineering

For requirements, see the description in the College of Engineering section of this catalog.

Chemical Engineering Courses (CH E)

LOWER DIVISION

100. Introduction to Chemical Engineering (1)
Chemical engineering as a profession. Nature of profession and career opportunities. Emerging frontiers of chemical engineering.
(Lecture 1 hour) Letter grade only (A-F).

200. Chemical Engineering Fundamentals (3)
Prerequisites: CHEM 111A, MATH 122, PHYS 151 all with a grade of "C" or better.
Dimensional analysis of units, steady and transient balances of mass, momentum and energy, the mathematical solution of chemical engineering problems.
(Lecture-problems 3 hrs) Letter grade only (A-F). Same course as CHE 200H. Not open for credit to students with credit in CHE 200H.

200H. Chemical Engineering Fundamentals (3)
Prerequisites: CHEM 111A, MATH 122, PHYS 151 all with a grade of "C" or better.
Dimensional analysis of units, steady and transient balances of mass, momentum and energy, the mathematical solution of chemical engineering problems
Letter grade only (A-F). CHE 200H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CHE 200. (Lecture-problems 3 hours)

210. Computer Methods in Chemical Engineering (3)
Prerequisite/corequisite: MATH 123
Beginning programming and techniques of numerical analysis applied to typical problems in chemical engineering.
(Lecture-problems 2 hours, lab 3 hours) Letter grade only (A-F).

220. Chemical Engineering Thermodynamics I (3)
Prerequisite: CHE E 200 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

UPPER DIVISION

300. The Chemical Industry (3)
Prerequisite: CHE 200 with a grade of "C" or better.
Survey of industrial chemical processing techniques and the activities of engineers in this area, illustrated by field trips, speakers, professional society meetings, films, readings, etc.
(Lecture 3 hours) Letter grade only (A-F).

310. Chemical Engineering Thermodynamics II (3)
Prerequisites: CH E 210, CH E 220 all with a grade of "C" or better.
Analysis and design of process equipment and systems using thermodynamics. Turbines, compressors, power plants, refrigeration cycles. Phase equilibria and nonideal solution behavior. Chemical reaction equilibria and heat effects.
(Lecture-problems 3 hours) Letter grade only (A-F). Not open for credit to students with credit in CHE 410.

320. Fluids (3)
Prerequisites: CHE 200, CHE 205 all with a grade of "C" or better.
Study of the deformation and flow of fluids, both liquids and gases, with applications to chemical engineering.
(Lecture-problems 3 hours) Letter grade only (A-F).

330. Separation Processes (3)
Prerequisite/Corequisite: CHE 310
Material and energy balances around multi-stage mass transfer unit operations. Calculation and graphical estimation of ideal number of stages. Binary and multicomponent liquid-liquid extraction, distillation and gas absorption. Model equilibrium staged separation processes with chemical process simulation software.
(Lecture-problems 2 hours, lab 3 hrs) Letter grade only (A-F). Same course as CHE 330H. Not open for credit to students with credit in CHE 330H.

330H. Separation Processes (3)
Prerequisite/Corequisite: CHE 310
Material and energy balances around multi-stage mass transfer unit operations. Calculation and graphical estimation of ideal number of stages. Binary and multicomponent liquid-liquid extraction, distillation and gas absorption. Model equilibrium staged separation processes with chemical process simulation software.
Letter grade only (A-F). CHE 330H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CHE 330. (Lecture-problems 2 hours, laboratory 3 hours)

415/515. Occupational and Environmental Safety Engineering and Management (3)
Prerequisite: CHEM 227 all with a grade of "C" or better or consent of instructor.
Safety analysis and management, legislation, regulations
Anderson, Michael J. doi: 10.1017/CBO9781107415326.004

439. Fuel Cell Fundamentals and Theory (3)
Prerequisites: MAE 322 and 330; or CHEM 371A all with a grade of "C" or better
Letter grade only (A-F). (Lecture-problem 3 hours).

440. Chemical Engineering Laboratory I (2)
Prerequisites: CHE 320, CHE 330 all with a grade of "C" or better.
Laboratory study of fluid mechanics, separation processes and thermodynamics. Experimental design and analysis and preparation of engineering reports.
(Laboratory 6 hours) Letter grade only (A-F).

445./545. Pollution Prevention (3)
Prerequisite: CHE 330 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

450. Chemical Engineering Laboratory II (2)
Prerequisites: CHE 440 with a grade of "C" or better. Prerequisite(s)/Corequisite(s): CHE 420, CHE 430, and CHE 460
Apply fundamental knowledge of heat transfer, chemical separations, process control and chemical kinetics to practical experiments. Remote data acquisition and control of process equipment. Design experiments to collect data, and perform data analysis. Written reports and oral/poster presentations.
(Laboratory 6 hours) Letter grade only (A-F).

455./555. Environmental Compliance (3)
Prerequisite: CHEM 227 with a grade of "C" or better or consent of instructor.
Physical and chemical properties of hazardous materials and wastes. Environmental hazards. An examination of environmental laws, regulations and standards dealing with storage, transportation, treatment and disposal of hazardous wastes. Emergency planning and preparedness. Extra requirement for graduate students: term papers or projects.
(Lecture-problems 3 hours) Letter grade only (A-F).

460. Chemical Process Control (3)
Prerequisites: CHE 420, CHE 430, and (MATH 370A or CHE 480) all with a grade of "C" or better.
Control theory and practice, instrumentation, system responses, transfer functions, feed-back control, and stability as applied to chemical engineering processes.
(Lecture-problems 2 hours, lab 3 hours) Letter grade only (A-F).

470. Chemical Engineering Design (4)
Prerequisites: CHE 330, CHE 420, CHE 430 all with a grade of "C" or better.
One-semester capstone design course fulfilling integrative learning. Design and optimization of chemical processing plants using analytical methods and modern computer simulation tools. Chemical process equipment sizing. Economic, ethical and safety issues considered. Teamwork, oral presentations and written reports are required.
(Lecture-problems 3 hours, problem-design session 3 hrs) Letter grade only (A-F). Same course as CHE 470H. Not open for credit to students with credit in CHE 470H.
470H. Chemical Engineering Design (4)
Prerequisites: CHE 330, CHE 420, CHE 430 all with a grade of "C" or better.
One-semester capstone design course fulfilling integrative learning. Design and optimization of chemical processing plants using analytical methods and modern computer simulation tools. Chemical process equipment sizing. Economic, ethical and safety issues considered. Teamwork, oral presentations and written reports are required.
Letter grade only (A-F). CHE 470H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CHE 470. (Lecture-problems 3 hours, problem-design session 3 hours)

475./575. Environmental Pollution (3)
Prerequisite: CHEM 220A or CHEM 227 all with a grade of "C" or better or consent of instructor.
Application of chemistry to the problems of pollution. Graduate students have additional assignments.
(Lecture-problem 3 hours) Letter grade only (A-F).

480./580. Theoretical Methods in Chemical Engineering (3)
Prerequisites: CH E 420, CHE 430 all with a grade of "C" or better.
Simulation and optimization of chemical engineering processes by mathematical formulation and computer modeling.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours) Letter grade only (A-F).

485./585. Air Pollution (3)
Prerequisite: CH E 475 or CE 364 all with a grade of "C" or better or consent of instructor.
Air pollution chemistry; control strategies; origin of pollutants; meteorology; vapor dispersion models; control principles for particulates, sulfur dioxide, and nitrogen oxides.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hrs) Letter grade only (A-F).

490. Special Problems (1-3)
Prerequisite: Consent of instructor.
Assigned topics in technical literature or laboratory projects and reports on same.
Letter grade only (A-F).

GRADUATE LEVEL

505. Advanced Chemical Engineering Thermodynamics (3)
Prerequisite: CHE 310 or equivalent course.
Letter grade only (A-F). (Lecture-problem 3 hours).

515./415. Occupational and Environmental Safety Engineering and Management (3)
Prerequisite: CHEM 227 all with a grade of "C" or better or consent of instructor.
Safety engineering and management, legislation, regulations and standards; toxicology and personal protective equipment; fire hazards; noise control; electrical safety; system safety analysis; container and spill management; use of computer systems and statistical methods.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours) Letter grade only (A-F).

520. Advanced Transport Phenomena (3)
Prerequisites: CH E 320, CHE 420, CHE 430 all with a grade of "C" or better.
Application of differential and integral mass, momentum and energy balances to chemical engineering processes. Analysis of fluid flow, heat transfer, diffusion and chemical reaction in various unit operations.
(Lecture-Problems 3 hours) Letter grade only (A-F).

530. Advanced Reactor Kinetics (3)
Prerequisite: CH E all with a grade of "C" or better.
Modeling of chemical reactors; effects of multiple phases, mixing, adsorption, diffusion and catalysts on reactor performance.
(Lecture-Problems 3 hrs) Letter grade only (A-F).

531./431. Heterogeneous Catalysts (3)
Prerequisite: CHE 430 with a grade of "C" or better or consent of instructor.
Basic principles of solid catalysts and solid catalyzed reactions. Proper choice of catalysts and how to solve catalyst-related problems in chemical engineering. Development of chemical processes that utilize innovative catalysts. Graduate students will need to do more assignments.
Letter grade only (A-F). (Lecture-Problems 3 hours)

532./432. Microfabrication and Microfluidics Technology (3)
Prerequisites: CHE 320, CHEM 227, MATH 370A or CHE 480 all with a grade of "C" or better or consent of instructor.
Fundamentals of major microfabrication techniques for device construction and microfluidics technology. Topics: photolithography, wet/dry etching, metal/dielectric deposition, soft lithography, diffusion/mixing/separation in microfluidic devices, and chip-to-world interfaces. Graduate students need to do more assignments.
Letter grade only (A-F). (Lecture-Problems 3 hours).

533./433. Green Engineering I: Alternative Energy (3)
Prerequisites: CHE 220, CHE 330, CHE 310 all with a grade of "C" or better or consent of instructor.
Letter grade only (A-F). (Lecture-Problems 3 hours).

537./437. Materials Purification Processes (3)
Prerequisites: CH E 330, CHE 420 all with a grade of "C" or better or consent of instructor.
Rate-controlled separation processes such as membrane separations, pressure swing adsorption, molecular sieve separation, supercritical fluid extraction, reverse osmosis, and spray drying.
Additional projects required for CH E 537. (Lecture-problems 3 hours) Letter grade only (A-F).

545./445. Pollution Prevention (3)
Prerequisite: CHE E 330 with a grade of "C" or better.
Pollution prevention strategies in chemical industry; hierarchical approach waste minimization; life cycle analyses of wastes; identification of pollution source; environmentally compatible materials; unit operations for minimizing waste; economics of pollution prevention.
Extra requirement for graduate students. (Lecture-problems 3 hours) Letter grade only (A-F).
555./455. Environmental Compliance (3)
Prerequisite: CHEM 227 with a grade of "C" or better or consent of instructor.
Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hours) Letter grade only (A-F).

560. Advanced Chemical Process Control (3)
Prerequisite: One of the following: CH E 460, E E 370/L, E E 411, EE 470, EE 471, EE 511, MAE 376, E T 492 all with a grade of "C" or better or consent of instructor.
Principles and practices of controller selection and tuning, advanced control loops, model predictive control, decoupling, hands-on experience of control loop design and implementation using Labview.
(Lecture-Problems 3 hours) Letter grade only (A-F).

575./475. Environmental Pollution (3)
Prerequisite: CHEM 220A or CHEM 227 all with a grade of "C" or better or consent of instructor.
Application of chemistry to the problems of pollution. Graduate students have additional assignments.
(Lecture-problem 3 hours). Letter grade only (A-F).

580./480. Theoretical Methods in Chemical Engineering (3)
Prerequisites: CH E 420, CHE 430 all with a grade of "C" or better.
Simulation and optimization of chemical engineering processes by mathematical formulation and computer modeling.
Extra requirements for graduate students: term papers or projects. (Lecture-problems 3 hours) Letter grade only (A-F).

585./485. Air Pollution (3)
Prerequisite: CH E 475 or CE 364 all with a grade of "C" or better or consent of instructor.
Air pollution chemistry; control strategies; origin of pollutants; meteorology; vapor dispersion models; control principles for particulates, sulfur dioxide, and nitrogen oxides.
Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hrs) Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Graduate standing.
Individual research or intensive study under the guidance of a faculty member on theoretical or experimental problems in chemical engineering.
(Independent Study) Letter grade only (A-F).

698. Thesis or Industrial Project (2-6)
Prerequisite: Advancement to Candidacy.
Preparation and completion of a thesis or industrial project in chemical engineering.
May be repeated to a maximum of 6 units.
CHEMISTRY AND BIOCHEMISTRY
College of Natural Sciences and Mathematics

Department Chair: Christopher R. Brazier
Department Office: Hall of Science (HSCI) 370
Telephone/FAX: (562) 985-4941/(562) 985-8557
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Faculty
Roger A. Acey (Emeritus), Dennis M. Anjo (Emeritus), Stuart R. Berryhill, Deepali Bhandari, Christopher R. Brazier, Xianhui Bu, Paul T. Buonora, Jeffrey A. Cohleberg (Emeritus), Andrew Chen, Shahab Derakhshian, Nancy Gandner, Thach Ho, Lijuan Li, Marco A. Lopez, Eric Mariner, Douglas D. McAbee, Margaret L. Merryfield, Stephen P. Mezyk, Kensaku Nakayama, Vasanthy Narayanaswami, Patrick Pierce, Michael Schramm, Jason Schwans, Gary Shankweiler, Young Shon, Katarzyna Slowinska, Krzysztof Slowinski, Eric Sorin, Enrico Tapavicza, Paul M. M. Weers

Administrative Support Coordinator: Irma Sanchez
Advisors:
Undergraduate: Douglas D. McAbee
Credential: James Kisiel, Tim Williamson
Graduate: Biochemistry: Paul M. M. Weers; Chemistry: Lijuan Li
Graduate Studies Committee: Lijuan Li, Krzysztof Slowinski, Christopher R. Brazier, Young Shen, Paul M. M. Weers

Honors in the Major: Douglas D. McAbee

Career Possibilities
Patent Agent • Chemist • Assayer • Water Purification Chemist • Chemical Lab Technician • Biochemist • Quality Control Coordinator • Pharmaceutical or Technical Sales Representative • Public Health Educator • Industrial Hygienist • Health Administrator • Teacher • Food / Drug Inspector • Materials Scientist • Medical Librarian • Environmental Scientist • Criminologist • Pharmacologist • Dentist • Physician • Geochemist • Chemical Oceanographer (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Chemistry and Biochemistry offers three bachelor's degrees, the B.S. in Chemistry, the B.S. in Biochemistry, and the B.A. in Chemistry, and two master's degrees, the M.S. in Chemistry and the M.S. in Biochemistry. These programs combined serve over 700 majors. In addition, the Department offers a Minor in Chemistry.

Degree Programs
The programs in chemistry and biochemistry at the bachelor's degree level are planned to develop background in a specific science, to serve as preparation for graduate work in chemistry or biochemistry, and to provide a foundation for those students seeking careers in the chemical sciences, teaching, law, medicine, dentistry, pharmacy and other health-related professions, and in industrial and governmental scientific occupations. The B.S. degree in Chemistry is certified by the American Chemical Society (American Chemical Society, Committee on Professional Training, 1155 Sixteenth St., NW, Washington, DC 20036, phone: 202-872-4589).

The B.S. degree in Biochemistry is certified by the American Society for Biochemistry and Molecular Biology (ASBMB department/program accreditation sub-committee, 11200 Rockville Pike, Suite 302, Rockville MD 20852-3110, phone: 240-283-6600).

Transfer Students: A student who transfers to the University must take at least 16 units of upper division chemistry courses here. To receive credit towards the major for courses taken elsewhere in place of CHEM 371A,B and/or 377A,B, consent of the Department Chair is required. Satisfactory performance on appropriate proficiency examinations may also be required.

The Department of Chemistry and Biochemistry offers graduate study leading to research-based master of science degrees in chemistry and biochemistry.

Applicants for the master of science degree programs should apply online both to the university and to the department. Links to the online application forms can be found on the department's web site (http://chemistry.csulb.edu – click on "Graduate Programs").

A limited number of teaching associate and graduate and research assistantships are available. Usually, these involve half-time work in the instructional program at the freshman and sophomore level or work in the laboratory. An applicant may apply for a teaching associate or graduate assistant position in the course of completing the online departmental application.

Academic Advising and Facilitated Enrollment into Classes
All entering students who declare a major in a degree program offered by this department need to contact the College of Natural Sciences and Mathematics' (CNSM) Academic Advising Center (HSCI 164) and participate in the College's Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June/July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Academic Advising Center, Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

Concurrent and/or Summer Enrollment in Another College
Students who wish to take course work in a community or other college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for approval prior to enrolling in specific
courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with; see “Concurrent Enrollment” and “Transfer of Undergraduate Credit” in this catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

Undergraduate Programs

Bachelor of Science in Chemistry (120 units)

Degree Progress

BS Chemistry majors must complete the following requirements within the specified time of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete. Students required to enroll in pre-baccalaureate math may receive one additional semester to meet the requirements.

Freshmen: A grade “C” or better must be achieved in both MATH 122 and CHEM 111A within one calendar year. A grade of “C” or better must be achieved in CHEM 111B and CHEM 220A within two calendar years.

Transfer Students: A grade “C” or better must be achieved in both CHEM 220A and PHYS 151 within 1 calendar year.

In addition, all BS Chemistry majors must earn a “C” or better in all courses counting toward the major and must maintain major and upper-division major GPAs of 2.0 or higher. A student whose GPA in the major or upper division GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the Department of Chemistry and Biochemistry explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

Students Desiring Entrance into a Health Professions Program

Students desiring entrance into one of the various health-related professional schools should consult with the Health Professions Advising Office in the College of Natural Sciences and Mathematics, Jensen Student Access to Sciences and Mathematics Center (HSCI-164) for more information. Most of the these schools do not require students to major in any particular discipline and many favor applicants who have earned a baccalaureate; rather, they want students who have done well in their major and who also took the prerequisite courses required by that particular school.

Requirements

Lower Division:

Either take all of the following:
- **BIOL 211 Introduction to Evolution and Diversity (4)**
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
- **BIOL 212 Intro to Cell and Molecular Biology (4)**
  Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better. Prerequisite/Corequisite: CHEM 111B.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L are required if courses were taken prior to catalog year 2010-11. Or one of the following:
- **BIOL 200 General Biology (4)**
  Prerequisite: GE Foundation requirements.
- **BIOL 205 Human Biology (4)**
  Prerequisites: GE Foundation requirements.
- **BIOL 207 Human Physiology (4)**
  Prerequisites: GE Foundation requirements.

Take either:
- **CHEM 111A General Chemistry (5)**
  Prerequisites: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.

and
- **CHEM 111B General Chemistry (5)**
  Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

or
- **CHEM 112A Advanced General Chemistry (5)**
  Prerequisite: Department consent.

and
- **CHEM 112B Advanced General Chemistry (5)**
  Prerequisite: CHEM 112A with a grade of "C" or better

Take either:
- **CHEM 251 Quantitative Analysis (4)**
  Prerequisite: CHEM 111B with a grade of "C" or better. Strongly recommended for pre-pharmacy students and students planning careers in clinical or analytical laboratory sciences. It is advised that CHEM 251 be taken within one calendar year of CHEM 111B.

or
- 4 units of electives chosen in consultation with an advisor.

Take all of the following courses:
- **CHEM 220A Organic Chemistry I (3)**
  Prerequisites: CHEM 111B with a grade of "C" or better. Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

- **CHEM 220B Organic Chemistry II (3)**
  Prerequisites: CHEM 220A with a grade of C or better
  Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L

- **MATH 122 Calculus I (4)**
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

- **MATH 123 Calculus II (4)**
  Prerequisite: A grade of "C" or better in MATH 122.

- **MATH 224 Calculus III (4)**
  Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.

- **PHYS 151 Mechanics and Heat (4)**
  Prerequisite/Corequisite: MATH 122.

- **PHYS 152 Electricity and Magnetism (4)**
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:
Take all of the following courses:

CHEM 320L Organic Chemistry Laboratory for Chemistry
& Biochemistry Majors (2) F, S
Prerequisites: CHEM 220A.
Corequisites: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 320B.

CHEM 331 Inorganic Chemistry (3)
Prerequisites: CHEM 111B with a grade of "C" or better.

CHEM 332 Inorganic Chemistry Lab (2)
Prerequisite/Corequisite: CHEM 331.

CHEM 361 Chemical Communications (3)
Prerequisites: GE Foundation requirement. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Prerequisite/Corequisite: CHEM 220A.

CHEM 371A Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

CHEM 371B Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

CHEM 373. Physical Chemistry Laboratory (3)
Prerequisites: CHEM 361, CHEM 371A or 377A, and CHEM 371B or 377B, all with a grade of "C" or better.

CHEM 431 Advanced Inorganic Chemistry (3)
Prerequisite(s): CHEM 331, with a grade of "C" or better.
Prerequisite(s/Corequisite(s): CHEM 371B.

CHEM 441A Biological Chemistry (3) or CHEM 448 (3)
Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.

CHEM 451 Instrumental Methods of Analysis (5)
Prerequisites: PHYS 152, CHEM 361; CHEM 371B or CHEM 377B; all with a grade of "C" or better.

CHEM 461 Chemistry Capstone (1)
Prerequisite: Department consent.

Take one of the following:

CHEM 420 Advanced Organic Chemistry Lab (3)
Prerequisites: CHEM 220B or CHEM 320L and either CHEM 361 or CHEM 466. (all with a grade of C or better).

CHEM 498 Senior Thesis (3)
Prerequisites: Major GPA 3.0 or higher, 3 units of CHEM 496 with a grade of "A", consent of instructor.

Take an additional 3 units of upper division chemistry electives including at least one unit of CHEM 496, CH E 330, CH E 430, or CH E 475 may be used as chemistry electives.

Students are also advised to take one or more additional courses in mathematics, such as MATH 247, MATH 364A, MATH 370A, MATH 380.

To meet prerequisite standards for courses in this program's requirements, a "C" or better is necessary in the following: BIOL 211, CHEM 111A, CHEM 111B, CHEM 112A, CHEM 220A, CHEM 220B, CHEM 320L, CHEM 331, CHEM 361, CHEM 371A, CHEM 371B, MATH 122, MATH 123, PHYS 151, PHYS 152.

Bachelor of Arts in Chemistry (120 units)

Degree Progress

BA Chemistry majors must complete the following requirements within the specified time of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete. Students required to enroll in pre-baccalaureate math may receive one additional semester to meet the requirements.

Freshmen: A grade "C" or better must be achieved in both MATH 122 and CHEM 111A within one calendar year. A grade of "C" or better must be achieved in CHEM 111B and CHEM 220A within two calendar years.

Transfer Students: A grade "C" or better must be achieved in both CHEM 220A and PHYS 151 within one calendar year.

In addition, BA Chemistry majors must earn a "C" or better in all courses counting toward the major and must maintain major and upper-division major GPAs of 2.0 or higher. A student whose GPA in the major or upper division GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the Department of Chemistry and Biochemistry explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

Requirements

Lower Division:

Take either of the following pairs:

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

CHEM 112A Advanced General Chemistry (5)
Prerequisite: Department consent.

CHEM 112B Advanced General Chemistry (5)
Prerequisite: CHEM 112A with a grade of "C" or better

Take either:

CHEM 251 Quantitative Analysis (4)
Prerequisite: CHEM 111B with a grade of "C" or better. Strongly recommended for pre-pharmacy students and students planning careers in clinical or analytical laboratory sciences. It is advised that CHEM 251 be taken within one calendar year of CHEM 111B.

or

4 units of electives chosen in consultation with an advisor

Take all of the following courses:

CHEM 220A Organic Chemistry I (3)

252 • Chemistry and Biochemistry • 2016-2017 CSULB Catalog
Prerequisites: CHEM 111B with a grade of "C" or better. Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

CHEM 220B Organic Chemistry II (3)
Prerequisites: CHEM 220A with a grade of C or better. Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:
Take all of the following courses:
CHEM 320L Organic Chemistry Laboratory for Chemistry & Biochemistry Majors (2)
Prerequisite: CHEM 220A
Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B

CHEM 331 Inorganic Chemistry (3)
Prerequisites: CHEM 111B with a grade of "C" or better.

CHEM 361 Chemical Communications (3)
Prerequisites: GE Foundation requirement. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Prerequisite/Corequisite: CHEM 220A.

Take one of the following courses:
CHEM 420 Advanced Organic Chemistry Lab (3)
Prerequisites: CHEM 220B or CHEM 320L and either CHEM 361 or CHEM 466, all with a grade of "C" or better.

CHEM 498 Senior Thesis (3)
Prerequisites: major GPA>3, 3 units of CHEM 496 with a grade of "A", consent of instructor

Take all of the following courses:
CHEM 451 Instrumental Methods of Analysis (5)
Prerequisites: PHYS 152, CHEM 361; CHEM 371B or CHEM 377B; all with a grade of "C" or better.

CHEM 461 Chemistry Capstone (1)
Prerequisite: Department consent.

Select one pair from the following:
CHEM 371A Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

and

CHEM 371B Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

or

CHEM 377A Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).

and

CHEM 377B Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).

Take an additional 3 additional units chosen with advisor consultation from the following:
CHEM 332, CHEM 373, CHEM 421, CHEM 431, CHEM 441A, 441B, CHEM 448, CHEM 480, CHEM 496. Only one biochemistry pathway may be used toward this degree program: either CHEM 448 or CHEM 441A and/or 441B.

To meet prerequisite standards for courses in this program's requirements, a "C" or better is necessary in the following:

Students must consult an advisor to select additional courses to meet the student's individual goals and interests.

Bachelor of Science in Biochemistry
(120 units)

Degree Progress
BS and Biochemistry majors must complete the following requirements within the specified time of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete. Students required to enroll in pre-baccalaureate math may receive one additional semester to meet the requirements.

Freshmen: A grade "C" or better must be achieved in both MATH 112 and CHEM 111A within one calendar year. A grade of "C" or better must be achieved in CHEM 111B and CHEM 220A within two calendar years.

Transfer Students: A grade of "C" or better must be achieved in both CHEM 220A and PHYS 151 within 1 calendar year.

In addition, BS and Biochemistry majors must earn a C or better in all courses counting towards the major and must maintain major and upper-division major GPAs of 2.0 or higher. A student whose GPA in the major or upper division GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the Department of Chemistry and Biochemistry explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

Requirements
Lower Division:
Take either:
CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

and

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

or

CHEM 112A Advanced General Chemistry (5)
Prerequisite: Department consent.
and
CHEM 112B Advanced General Chemistry (5)
Prerequisite: CHEM 112A with a grade of "C" or better
Take either:
CHEM 251 Quantitative Analysis (4)
Prerequisite: CHEM 111B with a grade of "C" or better. Strongly recommended for pre-pharmacy students and students planning careers in clinical or analytical laboratory sciences. It is advised that CHEM 251 be taken within one calendar year of CHEM 111B. or
4 units of electives chosen in consultation with an advisor
Take all of the following courses:
BIOL 211 Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
BIOL 212 Intro to Cell and Molecular Biology (4)
Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
Prerequisite/Corequisite: CHEM 111B.
NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L are required if courses were taken prior to catalog year 2010-11.
CHEM 220A Organic Chemistry I (3)
Prerequisites: CHEM 111B with a grade of "C" or better.
CHEM 222A is required for students repeating course.
CHEM 223A must be taken concurrently if required by a degree plan.
CHEM 220B Organic Chemistry II (3)
Prerequisites: CHEM 220A with a grade of C or better
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better.
PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:
Take all of the following courses:
BIOL 340 Molecular Cell Biology (3)
Prerequisites: BIOL 211, BIOL 212, all with a grade of "C" or better.
CHEM 320 Organic Chemistry Laboratory for Chemistry & Biochemistry Majors (2) F, S
Prerequisite: CHEM 220A.
CHEM 320B, except for students who previously earned a "C" or better in CHEM 320B.
CHEM 361 Chemical Communications (3)
Prerequisites: GE Foundation requirement. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Prerequisite/Corequisite: CHEM 220A.
CHEM 441A Biological Chemistry (3)
Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.
CHEM 441B Biological Chemistry (3)
Prerequisite: CHEM 441A with a grade of "C" or better.
CHEM 443 Biological Chemistry Laboratory (4)
Prerequisites: CHEM 441A and either CHEM 361 or CHEM 466; all with a grade of "C" or better.
CHEM 461 Chemistry Capstone (1)
Prerequisite: Department consent.
Select one of the following:
CHEM 371A Physical Chemistry (3)
Prerequisites: 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.
CHEM 377A Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.
CHEM 377B Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).

Select one course from the following:
CHEM 420 Advanced Organic Chemistry Lab (3)
Prerequisites: CHEM 220B or CHEM 320L and either CHEM 361 or CHEM 466. (all with a grade of C or better).
CHEM 451 Instrumental Methods of Analysis (5)
Prerequisites: PHYS 152, CHEM 361; CHEM 371B or CHEM 377B; all with a grade of "C" or better.

Take at least three units of elective chosen from:
BIOL 342/342L, BIOL 370, BIOL 416, BIOL 430, BIOL 431, BIOL 432, BIOL 443, BIOL 445, BIOL 473; CHEM 251, CHEM 331, CHEM 332, CHEM 373, CHEM 420, CHEM 431, CHEM 451, CHEM 466, CHEM 490, CHEM 496, CHEM 498, CHEM 498H, CHEM 499.

To meet prerequisite standards for courses in this program’s requirements, a "C" or better is necessary in the following:
BIOL 211, BIOL 212, CHEM 111A, CHEM 111B, CHEM 112A, CHEM 220A, CHEM 220B, CHEM 320L, CHEM 361, CHEM 441A, CHEM 371B, CHEM 377B, MATH 122, MATH 123,
PHYS 151, PHYS 152.

Single Subject Chemistry Concentration
The Chemistry Concentration meets the subject matter competence requirement for the Single Subject Teaching Credential in Chemistry. Consult with an advisor in the Department of Science Education early to plan a program.

Requirements
Lower Division:
Take all of the following courses:
ASTR 100 Astronomy (3)
Corequisites: One course from General Education Category B.2 and ASTR 100L.
BIOL 211 Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.
BIOL 212 Intro to Cell and Molecular Biology (4)
Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better.
Prerequisite/Corequisite: CHEM 111B.
BIOL 213 Introduction to Ecology and Physiology (4)
Prerequisites: BIOL 211, BIOL 212, CHEM 111B all with a grade of "C" or better.
NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.
CHEM 251 Quantitative Analysis (4)
Prerequisite: CHEM 111B with a grade of "C" or better. Strongly recommended for pre-pharmacy students and students planning careers in clinical or analytical laboratory sciences. It is strongly recommended that CHEM 251 be taken within one calendar year of CHEM 111B.
GEOL 102 General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 104 Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent. Prerequisite/Corequisite: GEOL 102.

GEOL 160 Introduction to Oceanography (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

Select one pair from the following:
CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

Or
CHEM 112A Advanced General Chemistry (5)
Prerequisites: Department consent

CHEM 112B Advanced General Chemistry (5)
Prerequisite: CHEM 112A with a grade of "C" or better

Select one pair from the following:
PHYS 100A General Physics (4)
Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.

PHYS 100B General Physics (4)
Prerequisite: PHYS 100A.

or

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Select one pair from the following:
MATH 119A Survey of Calculus I (3)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.

MATH 119B Survey of Calculus II (3)
Prerequisite: A grade of "C" or better in MATH 119A or MATH 122.

or

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

Upper Division:
Take all of the following:
CHEM 220A Organic Chemistry I (3)
Prerequisites: CHEM 111B with a grade of "C" or better.
Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.

CHEM 220B Organic Chemistry II (3)
Prerequisite: CHEM 220A with a grade of "C" or better.
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.

CHEM 451 Instrumental Methods of Analysis (5)
Prerequisites: PHYS 152, CHEM 361; CHEM 371B or CHEM 377B; all with a grade of "C" or better.

CHEM 496 Special Problems in Chemistry (1-3)
Prerequisite: Consent of instructor.

SCED 403 Integrated Science (3)
Prerequisites: Completion of all credential breadth requirements for the Single Subject Teaching Credential Program in Science, three-fourths of the credential specializations courses, and consent of instructor.

Take one of the following:
CHEM 441A Biological Chemistry (3)
Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.

Or
CHEM 448 Fundamentals of Biological Chemistry (3)
Prerequisites: CHEM 220B or 227 with a grade of "C" or better.

Take one of the following:
CHEM 431 Advanced Inorganic Chemistry (3)
Prerequisite(s)/Corequisite(s): CHEM 331, with a grade of "C" or better.
Prerequisite(s)/Corequisite(s): CHEM 371B.

CHEM 441B Biological Chemistry (3)
Prerequisite: CHEM 441A with a grade of "C" or better.

Single Subject Teaching Credential in Chemistry
In addition, prospective Chemistry teachers are required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Professional preparation courses may be taken as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Chemistry Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

Honors in Biochemistry or Chemistry
Students majoring in the B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry who would like an enriched academic program including an intensive research experience may be eligible to graduate with Honors in the Major through the University Honors Program. Students may complete General Honors through the University Honors Program as well; in such cases the General Honors thesis requirement is met through Honors in the Major (see University Honors in this catalog).

Requirements for Admission to Honors in the Major
The requirements for Honors in the Major also satisfies the requirements of a college-wide program, Honors in Biological Sciences, created with the support of a grant from the Howard Hughes Medical Institute. While Honors in the Major requires junior or senior standing, the college-wide program offers an enriched curriculum. Interested students
should contact the Honors in the Major director or the Jensen Student Access to Sciences and Mathematics Center.

1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry.
3. Submission of an application detailing interest in the program and willingness to commit to a year-long research experience.
4. Letter of recommendation from a CSULB faculty member familiar with the student's work.
5. Completion of CHEM 220A,B and one upper division chemistry lecture course. Students may apply during the semester in which they expect to complete these courses.
6. GPA of at least 3.00 in all courses in the major and in all upper division courses in the major.

Requirements for Graduation with Honors in the Major
1. GPA of at least 3.30 in all upper division courses in the major and in Honors courses.
2. Completion of all requirements for the B.S. in Biochemistry, B.S. in Chemistry, or B.A. in Chemistry.
3. Completion of one 500-level lecture course or 400/500 dual level course in chemistry (3 units).
4. Completion of 3 units CHEM 496, Undergraduate Directed Research.
6. Presentation of research results in a public forum. This requirement may be met by presentation at a scientific conference or at a local venue; consult the Honors in the Major advisor for additional information.
Substitutions to this program must be approved by the Honors in the Major Advisor.

Minor in Chemistry
Requirements

The Minor in Chemistry is available to any non-Chemistry or non-Biochemistry major. Students must earn a "C" or better in every course counted towards the minor.

A minimum of 19 units of chemistry coursework which must include a minimum of six units of upper division chemistry courses and the following:

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.

CHEM 220A Organic Chemistry I (3)
Prerequisites: CHEM 111B with a grade of "C" or better.
Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.
CHEM 220B Organic Chemistry II (3)
Prerequisites: CHEM 220A with a grade of C or better
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L

If students choose to take Physical Chemistry, then they must use courses from only one of the three Physical Chemistry paths to meet the requirements of the minor:
CHEM 371A Physical Chemistry: Thermodynamics and Kinetics (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

CHEM 371B Physical Chemistry: Quantum Mechanics and Spectroscopy (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.

CHEM 375 Physical Chemistry for Engineers (3)
Prerequisites: MATH 123, PHYS 151 and either PHYS 152 or EE 210/EE 210L; CH E 220; CHEM 111A/B; and CHEM 220A or CHEM 227, all grades of "C" or better. CHE 310 is strongly recommended.

CHEM 377A Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).

CHEM 377B Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).

If students choose to take Biochemistry, then they must use courses from only one of the two Biochemistry paths to meet the requirements of the minor:
CHEM 441A Biological Chemistry (3)
Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.

CHEM 441B Biological Chemistry (3)
Prerequisites: CHEM 441A with a grade of "C" or better.

CHEM 448 Fundamentals of Biological Chemistry (3)
Prerequisites: CHEM 220B or 227 either with a grade of "C" or better

In addition to the courses listed above the following courses may be used to complete the minor in chemistry: CHEM 223A, CHEM 223B, CHEM 251, CHEM 296, CHEM 320L, CHEM 331, CHEM 332, CHEM 373, CHEM 420, CHEM 421, CHEM 431, CHEM 443, CHEM 449, CHEM 451, CHEM 466, CHEM 480, CHEM 496.

The following courses are not acceptable toward the minor: CHEM 90, CHEM 100, CHEM 101, CHEM 140, CHEM 224, CHEM 302, CHEM 361

Graduate Credit Earned as an Undergraduate Chemistry or Biochemistry Major

Graduate credit usually may not be earned in advance of the baccalaureate degree. However, based upon the recommendation of the Department Chairman and the Chairman of the Department Graduate Studies Committee, academic performance (a grade point average of 3.00 overall and 3.00 in the major), and promise of academic
achievement in postgraduate study, a student in his/her senior year may be granted approval to earn a maximum of 12 units of course work in the 400 and 500 level taken at this University toward his/her prospective graduate program, subject to the following conditions:

1. The course work must be in addition to that required by the Department for the B.A. or B.S. degree in Chemistry or the B.S. degree in Biochemistry.
2. The undergraduate student must have a “Petition to Earn Credit in the Senior Year” approved by the appropriate Department Graduate Advisor, the Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.

Graduate Programs

Master of Science in Chemistry

Prerequisites

1. Acceptance as a graduate student by the Department of Chemistry and Biochemistry;
2. A bachelor’s degree with a major in chemistry; or a bachelor’s degree with undergraduate preparation in chemistry, physics and mathematics equivalent to that required for the bachelor’s degree with a major in chemistry at this University. A student deficient in any of these courses must complete the course(s) as a graduate student. The courses that must be taken to make up those deficiencies will be determined by the Graduate Adviser in consultation with the Graduate Studies Committee. Students with majors in other areas may be considered for admission at the discretion of the Graduate Adviser.
3. Entering graduate students are required to take a minimum of two placement examinations (more exams may be required by Graduate Committee) as follows:
   - at the beginning of the first semester of the M.S. program: student chooses to take one placement examination in analytical, inorganic, organic, physical or biochemistry.
   - at the beginning of the second semester of the M.S. program, student takes any additional placement examination(s) required by the Thesis Committee to a minimum of two.

Under some circumstances with the approval of the Graduate Adviser, students may take 2 or more placement examinations at the beginning of the first semester.

Any student failing to pass a placement examination is required to complete with a minimum grade of "B" or better an appropriate course recommended by the Graduate Studies Committee. Usually the recommended courses are:

- CHEM 251 and/or CHEM 451 if the subject is analytical chemistry;
- CHEM 331 and/or CHEM 431 if the subject is inorganic chemistry;
- CHEM 220A and/or CHEM 220B if the subject is organic chemistry;
- CHEM 371A and/or CHEM 371B if the subject is physical chemistry;

CHEM 441A and/or CHEM 441B if the subject is biochemistry.
4. The placement examinations are usually given on the Monday of the week preceding the first day of instruction. The Graduate Studies Committee evaluates the examination results and recommends appropriate courses to correct any deficiencies in chemistry.
5. Entering students must select a research advisor by the ninth week of the first semester. The thesis advisor will select two additional faculty members to serve on the Thesis Committee by the 13th week of the first semester. The Thesis Committee will prepare a degree program including the following: (1) additional placement examination(s) the student will take at the beginning of the second semester, (2) a list of graduate courses to be completed in the course of the program. The degree program must be finalized and forwarded to Graduate Advisor by the end of the first semester in residence. Any change in the approved degree program must be preauthorized by Graduate Advisor.
6. Each student shall prepare a thesis proposal in collaboration with the research advisor, stating the specific topic of the research and its significance, the specific objectives of the research, and the methods to be used. The thesis proposal must be approved by the Thesis Committee. The student must make a public presentation of the proposal by the end of the second semester in the MS program. Any major change in direction during the course of the research shall be subject to the approval of the Thesis Committee.

Advancement to Candidacy

The Department Graduate Studies Committee recommends advancement to candidacy after the graduate student has:

1. Either passed all the required placement examinations including those recommended by the Thesis Committee or achieved a grade of "B" or better in each course recommended by the Graduate Studies Committee for correcting the deficiencies;
2. Completed at least 6 units of courses on the proposed Graduate Program;
3. While in residence as a graduate student at this University, earned at least a 3.0 ("B") average in all upper division and graduate work, a 3.0 GPA in all CHEM courses, and a 3.0 GPA in all courses on the graduate program.
4. Fulfilled the Graduation Writing Assessment Requirement (GWAR);
5. Obtained approval of a graduate degree program by the Thesis Committee, the Graduate Adviser, the Department Chair (in consultation with the Graduate Studies Committee), and the Associate Dean or designee responsible for graduate studies in the College of Natural Sciences and Mathematics.
6. Make a public presentation of their thesis proposal and made appropriate progress in their proposed research as determined by the Thesis committee.

The criteria above should be met by the beginning of the third semester of graduate study. Deficient students may continue at the discretion of the Department Graduate Studies.
Committee. Students should be advanced to candidacy as soon as they are eligible.

**Requirements**

1. Advancement to candidacy;
2. Complete a minimum of 30 units including:
   A. Take a minimum of 12 units in chemistry lecture courses in the 500 series (excluding CHEM 595);
   B. Take CHEM 595 Colloquium for a total of 2 or 3 units
      Prerequisite: Graduate standing or consent of instructor.
   C. Take CHEM 660 Seminar in Chemistry (1-3)
      Prerequisite: None
   D. Take CHEM 697 Directed Research (4-6)
      Prerequisite: Arrangement with instructor.
   E. Take CHEM 698 Thesis (4-6)
      Prerequisites: Advancement to candidacy for M.S. in Chemistry or M.S. in Biochemistry and arrangement with instructor.
   F. Additional courses (excluding CHEM 595 and required courses in the BS Chemistry degree program) as approved by Thesis Committee with concurrence of Graduate Advisor.

Changes in the above pattern of course requirements may be made only by the Graduate Studies Committee and the Graduate Advisor subject to approval by the College’s Associate Dean.

3. Completion of a written thesis, of publication quality, acceptable to the members of the thesis committee and a public presentation of the thesis research. The public presentation must be completed before the thesis is signed by the committee members.


5. While not a requirement for the degree, students in the MS program normally gain experience teaching laboratory sections of Chemistry courses, as preparation for professionally related teaching activities in their future careers.

**Master of Science in Biochemistry**

**Prerequisites**

1. Acceptance as a graduate student by the Department of Chemistry and Biochemistry;
2. A bachelor’s degree with a major in chemistry or biochemistry or one of the biological sciences. Students with majors in other areas may be considered for admission at the discretion of the Graduate Advisor. Prerequisite courses include CHEM 220A, CHEM 377A,B, CHEM 441A, CHEM 441B, CHEM 443; MATH 122, MATH 123; PHYS 100A,B or their equivalents and courses in general biology and cell/molecular biology. A student deficient in any of these courses must complete the course(s) as a graduate student.

3. Entering graduate students are required to take a placement examination in biochemistry at the beginning of the first semester of the MS program. A second placement examination in either organic chemistry or physical chemistry must be taken by the beginning of the second semester. Any student failing to pass a placement examination, is required to complete an appropriate course recommended by the Graduate Studies Committee with a minimum grade of "B" or better. Usually the recommended courses are:
   CHEM 220A and/or CHEM 220B
   if the subject is organic chemistry.
   (CHEM 371A or CHEM 377A) and/or (CHEM 371B or CHEM 377B)
   if the subject is physical chemistry.
   CHEM 441A and/or CHEM 441B
   if the subject is biochemistry.

Under some circumstances, with the approval of the Graduate Advisor, students may take both placement examinations at the beginning of the first semester.

4. The placement examinations are usually given on the Monday of the week preceding the first day of instruction. The Graduate Studies Committee evaluates the examination results and recommends appropriate courses to correct any deficiencies in chemistry.

5. Entering students must select a research advisor by the ninth week of the first semester. The advisor will select two additional faculty members to serve on the Thesis Committee by the end of the 13th week of the first semester. The Thesis Committee will prepare a degree program including the following:

   (1) the second placement examinations (in organic or physical chemistry) the student will take at the beginning of the second semester,
   (2) a list of graduate courses to be completed in the course of the program. The degree program must be finalized and forwarded to the Graduate Advisor by the end of the first semester in residence. Any changes in the approved degree program must be preauthorized by the Graduate Advisor.

5. Each student shall prepare a thesis proposal in collaboration with the thesis advisor, stating the specific topic of the research and its significance, the specific objectives of the research, and the methods to be used. The thesis proposal must be approved by the Thesis Committee. The student must make a public presentation of the proposal by the end of the second semester in the MS program. Any major change in direction during the course of the research shall be subject to the approval of the Thesis Committee.

**Advancement to Candidacy**

The Department’s Graduate Studies Committee recommends advancement to candidacy after the graduate student has:

1. Either passed all the required placement examinations including those recommended by the Thesis Committee or achieved a grade of B or better in courses recommended by the Graduate Studies Committee for correcting the deficiencies;
2. Completed at least 6 units of courses on the proposed Graduate Program;
3. While in residence as a graduate student at this University, earned at least a 3.0 ("B") average in all upper division and graduate work, a 3.0 gpa in all CHEM courses, and a 3.0 gpa in all courses on the graduate program.
4. Fulfilled the Graduation Writing Assessment Requirement (GWAR);
5. Obtained approval of a graduate degree program by the Thesis Committee, the Graduate Adviser, the Department Chair (in consultation with the Graduate Studies Committee), and the Associate Dean responsible for graduate studies in the College of Natural Sciences and Mathematics.

6. Made a public presentation of their thesis proposal and made appropriate progress in their proposed research as determined by the Thesis committee. The criteria above should be met by the beginning of the third semester of graduate study. Deficient students may continue at the discretion of the Department Graduate Studies Committee. Students should be advanced to candidacy as soon as they are eligible.

Requirements
1. Advancement to candidacy;
2. Complete a minimum of 30 units including:
   A. Take a minimum of 12 units in chemistry lecture courses in the 500 series that must include CHEM 541 (excluding CHEM 595);
   B. Take BIOL 540. In some circumstances, 3 units of another 500-level biology lecture course may be substituted with the approval of the Graduate Advisor.
   C. Take CHEM 595 Colloquium for a total of 2 units
      Prerequisite: Graduate standing or consent of instructor.
   D. Take CHEM 660 Seminar in Chemistry (1-3)
      Prerequisite: None
   E. Take CHEM 697 Directed Research (3) and CHEM 697C
      Directed Research (1-3)
      Prerequisite: Arrangement with instructor.
   F. Take CHEM 698 Thesis (4-6)
      Prerequisites: Advancement to candidacy for M.S. in Chemistry or M.S. in Biochemistry and arrangement with instructor.
   G. Additional 400- and 500-level science courses (excluding CHEM 595 and required courses in the BS Biochemistry degree program) as recommended by the Thesis Committee and approved by the Graduate Advisor and the College’s Associate Dean. Changes in the above pattern of course requirements may be made only at the discretion of the Graduate Studies Committee and the Graduate Advisor subject to approval by the College’s Associate Dean or designee.
3. Completion of a written thesis, of publication quality, acceptable to the members of the Thesis Committee and a public presentation of the thesis research. The public presentation must be completed before the thesis is signed by the committee members.
5. While not a requirement for the degree, students in the MS program normally gain experience teaching laboratory sections of Chemistry courses, as preparation for professionally related teaching activities in their future careers.

Single Subject Teaching Credential in Chemistry
For information, refer to the undergraduate section in this department.

Chemistry and Biochemistry Courses (CHEM)

PREBACCALAUREATE

90. Introduction to General Chemistry (4)
Prerequisite/Corequisite: MATH 109 or higher.
Preparatory course for CHEM 111A. Recommended for students who have not achieved a satisfactory score on the Chemistry Placement examination. Basic principles and concepts including atomic structure, nomenclature, and chemical calculations with emphasis on problem solving.
Credit/No Credit grading only. Cannot be taken for credit toward a university degree. Credit in CHEM 90 or CHEM 101 does not substitute for a passing score on the Chemistry Placement Test. Not open to students with credit in CHEM 101. (Lecture 3 hrs., activity 2 hrs.) May be offered in a hybrid format.

LOWER DIVISION

100. Chemistry and Today’s World (4)
Prerequisite: One GE Foundation course (GE categories A1, A2, A3, or B2).
Introduction to basic principles of chemistry and a consideration of the benefits and problems arising from applications of chemistry. Discussions of foods and food additives, drugs, plastics, and other materials of everyday life, fuel sources, the atmosphere, and fresh water. Suitable for general education credit.
Not open for credit to chemistry or biochemistry majors or students with credit in CHEM 111A or CHEM 140. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

111A. General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.
Students not planning to continue onto CHEM 111B may be concurrently enrolled in MATH 109.
Other students need to be concurrently enrolled in MATH 113 or MATH 115 or MATH 119A or MATH 122.
One year of high school chemistry is strongly recommended.
(This course is recommended for those intending to pursue careers in science or engineering.)
First semester of a two-semester sequence (CHEM 111A and CHEM 111B). Introduction to principles of chemistry including chemical reactions, stoichiometry, thermochemistry, electronic structure, bonding, and properties of solids, liquids, gases, and solutions.
Letter grade only (A-F). Credit in CHEM 90 or CHEM 101 does not substitute for a passing score on the Chemistry Placement Examination.
(Lecture 3 hrs., lab and problem solving session 6 hrs.) Course fee may be required.

111B. General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 119A or MATH 122 all with a grade of "C" or better.
Second semester of a two-semester sequence (CHEM 111A and CHEM 111B). Continuation of chemical principles, chemical equilibrium, kinetics, thermodynamics, electrochemistry, elements of qualitative and quantitative inorganic analysis. Solving aqueous equilibrium problems are emphasized.
Letter grade only (A-F). (Lecture 3 hrs., lab and problem solving sessions 6 hrs.) Course fee may be required.
112A. Advanced General Chemistry (5)
Prerequisite: Department consent.
First semester of a two-semester advanced general chemistry sequence (CHEM 112A and CHEM 112B). Continuation of principles of chemistry including chemical reactions, stoichiometry, thermodynamics, physical properties and structures, bonding, and properties of solids, liquids, gases, and solutions, kinetics, and equilibrium. Letter grade only (A-F). (Lecture 3 hrs., lab and problem session 6 hrs.)

112B. Advanced General Chemistry (5)
Prerequisite: CHEM 112A with a grade of "C" or better.
Second semester of a two-semester advanced general chemistry sequence (CHEM 112A and CHEM 112B). Continuation of chemical principles, electrochemistry, applications of bonding theories of inorganic molecules, trends and reactivities of elements and their compounds, elements of qualitative and quantitative inorganic analysis, introduction to coordination chemistry, solid-state chemistry, and reactions of transition metals. Solving aqueous equilibrium problems is emphasized. Letter grade only (A-F). (Lecture 3 hrs., lab and problem session 6 hrs.)

140. General, Organic, and Biochemistry (5)
Prerequisites: Restricted to Pre-Nursing majors. A grade of "C" or better in MATH 109 or MATH 113 or MATH 117 or MATH 119A or MATH 122 or STAT 106; high school chemistry or equivalent.
This one-semester course encompasses general chemistry, organic chemistry, and biochemistry. Meets chemistry requirement for pre-nursing curriculum. Letter grade only (A-F). (Lecture 3 hrs; problem solving session 1 hr., and laboratory 3 hrs.) Course fee may be required.

220A. Organic Chemistry I (3)
Prerequisites: CHEM 111B with a grade of "C" or better.
Corequisites: CHEM 224 is required for students repeating course. CHEM 223A must be taken concurrently if required by a degree plan.
First semester of two-semester sequence (CHEM 220A, CHEM 220B; and CHEM 223A and CHEM 223B or CHEM 320L).
Sequence meets requirements for medical and dental schools. Emphasis is upon application of modern principles of structure, reactivity, methods of synthesis, physical properties and spectroscopy. Not open to students with credit in CHEM 320A or CHEM 322A.
Letter grade only (A-F). (Lecture 3 hrs.)

220B. Organic Chemistry II (3)
Prerequisite: CHEM 220A with a grade of "C" or better.
Corequisite: CHEM 223B or CHEM 320L except for students who previously earned a "C" or better in CHEM 223B or CHEM 320L.
Second semester of two-semester sequence (CHEM 220A, CHEM 220B; CHEM 223A and CHEM 223B or CHEM 320L). Continuation of study of organic chemistry including chemistry of compounds containing more than one functional group, bioorganic molecules, and special topics. Not open to students with credit in CHEM 320B or CHEM 322B. Letter grade only (A-F). (Lecture 3 hrs.)

223A. Organic Chemistry Laboratory I (1)
Corequisite: CHEM 220A, except for students who previously earned a "C" or better in CHEM 220A.
Introduction to organic laboratory techniques. First semester of a two-semester sequence (CHEM 223A, CHEM 223B). Not applicable to a degree in chemistry or biochemistry. Not open to students with credit in CHEM 320L or CHEM 323A.
Letter grade only (A-F). (Laboratory 3 hrs.)

223B. Organic Chemistry Laboratory II (1)
Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better. Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.
Synthesis and characterization of organic and bioorganic compounds. Second semester of a two-semester sequence (CHEM 223A, CHEM 223B). Not applicable to a degree in chemistry or biochemistry. Not open to students with credit in CHEM 320B, or CHEM 320L, or CHEM 323B.
Letter grade only (A-F). (Laboratory 3 hrs)

224. Organic Chemistry Recitation (1)
Corequisite: CHEM 220A.
Problem solving session emphasizing principles learned in first semester organic chemistry. Credit/No Credit grading only. May be repeated to a maximum of 3 units in different semesters. (Problem solving session 1 hr.) Does not count for General Education credit.

227. Fundamentals of Organic Chemistry (3)
Prerequisite: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.
License course in chemistry of the carbon compounds. Letter grade only (A-F). Not applicable to a degree in chemistry. (Lecture 3 hrs.) Not open for credit to students with credit in CHEM 327.

251. Quantitative Analysis (4)
Prerequisite: CHEM 111B with a grade of "C" or better. Strongly recommended for pre-pharmacy students and students planning careers in clinical or analytical laboratory sciences. It is strongly recommended that CHEM 251 be taken within one calendar year of CHEM 111B.
Introduction to techniques and theory of gravimetric and volumetric analysis, spectrophotometry, potentiometry, and chromatography. Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

296. Research Methods (1)
Prerequisites: CHEM 111A or CHEM 112A (grade of "B" or better) or consent of Instructor
Introduction to research methods in chemistry. Mixed course designed primarily to introduce lower division students to research before they take CHEM 496.
Letter grade only (A-F). (Lecture/seminar based course only)

UPPER DIVISION

302. Survey of Biochemistry (3)
Prerequisites: A minimum of 3 units of university-level general and organic chemistry with grade of "C" or better.
Study of the chemistry, structures, metabolic reactions and functions of the major classes of biochemical compounds. Does not meet the requirements of medical or dental schools. Letter grade only (A-F). Does not count for General Education credit. (Lecture 2 hrs., discussion 1 hr.)

320L. Organic Chemistry Laboratory (2)
Prerequisite: CHEM 220A.
Corequisite: CHEM 220B, except for students who have previously earned a "C" or better in CHEM 220B.
Introduction to organic laboratory techniques, synthesis and characterization of organic and bioorganic compounds. Letter grade only (A-F). Not open for credit to students with credit in CHEM 320B. (Laboratory 6 hrs). Course fee may be required.

331. Inorganic Chemistry (3)
Prerequisites: CHEM 111B with a grade of "C" or better.
Introduction to coordination chemistry, solid-state chemistry, and reactions of transition metals. Letter grade only (A-F). (Lecture 3 hrs.)
332. Inorganic Chemistry Laboratory (2)
Prerequisite/Corequisite: CHEM 331.
Synthesis, characterization, and manipulation of inorganic compounds and materials.
Letter grade only (A-F). (Laboratory 3 hrs).

361. Chemical Communications (3)
Prerequisites: GE Foundation requirement. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Prerequisite/Corequisite: CHEM 220A.
Using the chemical literature. Writing technical reports for various purposes. Oral presentation of chemical information. Includes extensive writing. Completes the GE Writing Intensive Capstone requirement.
Letter grade only (A-F). (Seminar 3 hrs.)

371A. Physical Chemistry: Thermodynamics and Kinetics (3) F
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.
Half of the two semester physical chemistry package. The two courses, CHEM 371A,B, may be taken in either order. Principles and applications of classical thermodynamics; introduction to chemical kinetics.
Letter grade only (A-F). (Lecture 3 hrs.)

371B. Physical Chemistry: Quantum Mechanics and Spectroscopy (3)
Prerequisites: CHEM 111B, MATH 123, PHYS 152 (all with a grade of "C" or better).
Prerequisite/Corequisite: MATH 224.
Half of the two semester physical chemistry package. The two courses CHEM 371A,B may be taken in either order. Principles and applications of quantum chemistry, spectroscopy, and statistical thermodynamics.
Letter grade only (A-F). (Lecture 3 hrs.)

373. Physical Chemistry Laboratory (3)
Prerequisites: CHEM 361, CHEM 371A or 377A, and CHEM 371B or 377B, all with a grade of "C" or better.
Introduction to basic physico-chemical experimental techniques with applications to principles discussed in CHEM 371A,B and CHEM 377A,B.
Letter grade only (A-F). (Lecture 1 hr., laboratory 6 hrs.)

375. Physical Chemistry for Engineers (3)
Prerequisites: MATH 123; PHYS 151 and either PHYS 152 or EE 210/EE 210L; CH E 220; CHEM 111A/B; and CHEM 220A or CHEM 227, all grades of "C" or better. CH E 310 is strongly recommended.
Principles and applications of real gases, liquids, and solutions; intra- and intermolecular interactions; kinetic theory and chemical kinetics; quantum chemistry, chemical bonding, and spectroscopy.
Letter grade only (A-F). (Lecture 3 hrs)

377A. Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).
Half of the two semester physical chemistry package with a biochemical emphasis. The two courses CHEM 377A,B may be taken in either order. Principles of physical chemistry emphasizing thermodynamics and chemical kinetics. Biological and environmental science examples used to illustrate principles.
Letter grade only (A-F). (Lecture 3 hrs.)

377B. Fundamentals of Physical Chemistry (3)
Prerequisites: CHEM 111B, MATH 123, and PHYS 152 (all with a grade of "C" or better).
Half of the two semester physical chemistry package with a biochemical emphasis. The two courses CHEM 377 A,B may be taken in either order. Principles of physical chemistry with emphasis on molecular structure and spectroscopy.
Letter grade only (A-F). (Lecture 3 hrs.)

385. Materials Science (3)
Prerequisites: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 111B is strongly recommended.
Introduction to general principles of energy materials including catalytic, photovoltaic, and thermoelectric materials based on nanostructural and/or nanoporous systems. Students will be required to complete preparatory modules on Kinetics (reaction dynamics), Electrochemistry, Fermi statistics, and Diodes.
Letter grade only (A-F). Same course as PHYS 385. Not open for credit to students with credit in PHYS 385.

385C. Materials Science Colloquium (1)
Prerequisites: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 111B is strongly recommended.
Discussion of advances as reported in recent literature related to energy materials. Provides experience in library use, organization, presentation, and critical evaluation of the literature.
Letter grade only (A-F). Same course as PHYS 385C. Not open for credit to students with credit in PHYS 385C.

385L. Materials Science Colloquium (1)
Prerequisites: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 111B is strongly recommended.
Introduction to synthesis, characterization methods, and property measurement of advanced materials.
Letter grade only (A-F). Course fee may be required. (Laboratory 6 hours). Same course as PHYS 385L. Not open for credit to students with credit in PHYS 385L.

420. Advanced Organic Chemistry Laboratory (3)
Prerequisites: CHEM 220B or CHEM 320L and either CHEM 361 or CHEM 466, all with a grade of "C" or better.
Synthesis and characterization of organic compounds. Organic structures analyzed through interpretation of spectral data. Emphasis on use of high field NMR, mass spectrometry, IR, and UV. Applications of modern separation techniques.
In addition to regularly scheduled lectures, students are expected to attend three hours of lecture on use of chemical literature. Letter grade only (A-F). Course fee may be required. (Lecture 1 hr., laboratory 6 hrs.)

421. Physical Organic Chemistry (3) F
Prerequisites: CHEM 220B with a grade of "C" or better.
Prerequisite/Corequisite: CHEM 371B or CHEM 377B.
Undergraduates enroll in CHEM 421; graduates in CHEM 521.
Theoretical interpretation of chemical and physical properties of organic compounds; mathematical derivations of rate equations from experimental results, quantitative comparison of organic compounds reactivities, mathematical correlations of structure and properties. Solving problems relating to reaction mechanisms to described factors.
Letter grade only (A-F). (Lecture 3 hrs.)
431. Advanced Inorganic Chemistry (3) F
Prerequisite(s): CHEM 331, with a grade of "C" or better.
Quantitative study of chemical bonding in inorganic molecules emphasizing on molecular orbital theory. Transition metal chemistry including coordination chemistry, ligand field theory, spectroscopy applications to structural analysis of inorganic molecules, and review of properties and reactivities of elements and their compounds.
Letter grade only (A-F). (Lecture 3 hrs.)

441A. Biological Chemistry (3)
Prerequisites: CHEM 220B and either CHEM 320L or CHEM 223B all with a grade of "C" or better; a biology or microbiology course is recommended.
First semester of a two-semester sequence (CHEM 441A and 441B) in biochemistry. Chemical and mathematical treatment of energetics and kinetics of reactions in living systems, including chemistry and metabolism of carbohydrates and chemistry of proteins.
Letter grade only (A-F). (Lecture 3 hours)

441B. Biological Chemistry (3)
Prerequisite: CHEM 441A with a grade of "C" or better.
Second semester of two-semester sequence (CHEM 441A and CHEM 441B) in biochemistry. Metabolism of lipids, proteins, and nucleic acids, and other advanced topics in metabolism.
Letter grade only (A-F). (Lecture 3 hours)

443. Biological Chemistry Laboratory (4)
Prerequisites: Prerequisites: CHEM 441A and either CHEM 361 or CHEM 466; all with a grade of "C" or better.
Theory and practice of laboratory techniques used in biochemical research.
Letter grading only (A-F). (Lecture 1 hr., laboratory 9 hrs.) Course fee may be required.

448. Fundamentals of Biological Chemistry (3)
Prerequisites: CHEM 220B or CHEM 227 either with a grade of "C" or better.
Major principles of biochemistry including metabolic processes, biological control and regulatory processes, nutrition and chemical energetics and kinetics of animals, plants and microorganisms. Emphasis on major concepts and problem solving.
Not open to chemistry majors. Not open for credit to students with credit in CHEM 441A,B. Letter grade only (A-F). (Lecture 3 hrs.)

449. Nutritional Biochemistry Laboratory (1)
Prerequisite: CHEM 448 with a grade of "C" or better. May be taken concurrently with CHEM 448.
Analytical and biochemical analyses of foodstuffs and other compounds of biochemical interest.
Letter grade only (A-F). (Laboratory 3 hrs.) Course fee may be required.

451. Instrumental Methods of Analysis (5)
Prerequisites: PHYS 152, CHEM 361; CHEM 371B or CHEM 377B, all with a grade of "C" or better.
Theory and application of instrumental methods to chemical problems. Includes measurement basics, atomic and molecular spectroscopy, electroanalytical chemistry, separation methods, surface analysis, and statistical evaluation of analytical data.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required.

461. Chemistry Capstone (1) F,S
Prerequisite/Corequisite: Department consent.
The capstone course for chemistry and biochemistry seniors integrating knowledge and skills from different disciplines of chemistry and biochemistry. Includes discussion of regulatory affairs, ethics in research, and seminars on research topics in chemistry and biochemistry.
Letter grade only (A-F). (Seminar 1 hr)

466. Research Design and Methods (3) S
Prerequisites: BIOL 211, BIOL 212, BIOL 213, either BIOL 260 or CHEM 251, CHEM 220A, and CHEM 223A,B all with a grade of "C" or better; GE Foundation requirement; a GPA of at least 3.0 in the major; and consent of the instructor. At least one unit of BIOL 496 or CHEM 496.
Corequisites: At least one unit of BIOL 496 or CHEM 496.
Introduction to hypothesis testing, experimental design, methodological and technical procedures for experimentation, grant writing, and techniques for written and oral presentation of research results. Research paper and oral presentation required.
Letter grade only (A-F). Same course as BIOL 466. (Lecture 3 hours). Not open for credit to students with credit in BIOL 466, BIOL 466H or CHEM 466H.

480./580. Biomolecular Modeling and Simulation (3)
Prerequisites: CHEM 220A, MATH 123 (may be taken concurrently), and PHYS 100B or PHYS 152, all with a grade of "C" or better.
The study of biomolecular phenomena using computer-based modeling and simulation techniques with varying degrees of resolution, including development and validity of molecular models.
Letter grade only (A-F). (Lecture 3 hrs.)

485. Special Topics in Materials Chemistry (3)
Prerequisite: CHEM 220B and CHEM 331 and CHEM 385 or consent of instructor.
Areas of current interest in materials chemistry with introduction to principles of materials synthesis, characterization, and application.
Letter grade only (A-F)

496. Undergraduate Directed Research (1-3)
Prerequisite: Consent of instructor.
Research in a specific topic in chemistry or biochemistry approved and directed by faculty. Written report required.
May be repeated to a maximum of 6 units. (Independent Study).

498H. Senior Thesis – Honors (1-3)
Prerequisites: CHEM 466; at least one unit of CHEM 496 with a grade of "A"; admission into the Honors in Chemistry program, and consent of instructor.
Planning, preparation, and completion of thesis based on a research project in chemistry or biochemistry.
Letter grade only (A-F). Not available to graduate students.

498. Senior Thesis (3)
Prerequisites: Major GPA 3.0 or higher, 3 units of CHEM 496 with a grade of "A", consent of instructor.
Continuation of research in chemistry and biochemistry, planning, preparation, and completion of thesis based on original research project. Submission of acceptable thesis meeting the guidelines for research reports issued by the Committee on Professional Training American Chemical Society is required.
Letter grade only (A-F). Not available for graduate students.

499. Directed Reading (1)
Survey of chemical literature on some topic of current interest under supervision of a faculty member. Preparation of a written report based on readings.
Letter grade only (A-F). Not open for credit to graduate students.
521./421. Physical Organic Chemistry (3) F
Prerequisites: CHEM 220B with a grade of "C" or better. Prerequisite/Corequisite: CHEM 371B or CHEM 377B. Undergraduates enroll in CHEM 421; graduates in CHEM 521. Theoretical interpretation of chemical and physical properties of organic compounds; mathematical derivations of rate equations from experimental results; quantitative comparison of organic compounds readivities, mathematical correlations of structure and properties. Solving problems relating to reaction mechanisms to described factors. Letter grade only (A-F). (Lecture 3 hrs.)

522. Selected Topics in Organic Chemistry (3)
Prerequisite: CHEM 421 or CHEM 521 or consent of instructor. Areas of current interest in organic chemistry. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Lecture 3 hrs.)

523. Synthetic Methods (3)
Prerequisites: CHEM 220B with a grade of "C" or better; CHEM 521 recommended. Introduction to current methods of synthetic transformations; topics may include, but not limited to the following: Retrosynthetic analysis, protecting groups, functional group transformations, enolate chemistry, organometallics, stereochemistry and conformational analysis, pericyclic reactions, alkyne functionalization and reactions of carbon nucleophiles. Letter grade only (A-F). (Lecture 3 hrs.)

524. Catalysis in Organic Chemistry (3)
A study of catalysis beginning with a general theory of catalysis. The course also covers catalysis in synthetic organic chemistry centered on metals and ligated metals and catalysis centered on organic molecules as the catalytic species. Letter grade only (A-F). (Lecture 3 hrs.)

525. Introduction to Supramolecular Chemistry (3)
Prerequisites: Proficiency in any of the following as demonstrated by ACS placement exam: Organic, Biochemistry or Inorganic Introduction to non-covalent interactions will be presented in the context of molecular recognition and self-assembly. Synthetic and biological examples will be used to understand these principles and how they can be applied to the preparation of new materials. Letter grade only (A-F). (Lecture 3 hrs.)

531. Advances in Inorganic Chemistry (3)
Prerequisite: CHEM 431 or consent of instructor. Current topics and advances in inorganic chemistry. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 3 hrs.)

532. Inorganic Materials Chemistry (3)
Prerequisite: CHEM 431 or consent of instructor. Advanced studies in bonding in solids, crystal structure variations, band theory and electronic structure, crystal structure-electronic structure-physical properties relationship, electron transport properties, magnetic materials, materials by design for technological applications. Letter grade only (A-F). (Lecture 3 hrs.)

533. Physical Techniques in Inorganic Chemistry (3)
Prerequisite: CHEM 431 or consent of instructor. An introduction to physical techniques commonly used in inorganic chemistry with focus on the magnetic resonance spectroscopic techniques: EPR and multinuclear NMR. Letter grade only (A-F). (Lecture 3 hrs.)

534. Crystal Structure Analysis (3)
Prerequisite: CHEM 431 or consent of instructor. An introduction to structural methods commonly used in inorganic chemistry with focus on single crystal and powder X-ray diffraction. Letter grade only (A-F). (Lecture 3 hrs.)

541. Biochemistry Core for Graduate Study (3)
Prerequisites: CHEM 441A,B The course is divided into three topics: (i) structure and evolution of proteins and their complexes with nucleic acids, lipids and carbohydrates, including structure determination methods; (ii) metabolic regulation from mechanistic and physiological viewpoints; (iii) applications of biochemical methodologies. Letter grade only (A-F). (Lecture 3 hrs.)

542. Selected Topics in Biochemistry (3)
Prerequisites: Either CHEM 371A,B or CHEM 377A,B; CHEM 441B; CHEM 541 all with the grade of "C" or better; or consent of instructor. Physical chemical aspects of protein and nucleic acid chemistry and related analytical methods. Letter grade only (A-F). (Lecture 3 hrs.)

546. Protein Structure and Function (3)
Prerequisites: Either CHEM 371B or CHEM 377B; and both CHEM 441A and CHEM 541 with the grade of "C" or better; or consent of instructor. Principles of protein structure, folding, and function. Includes techniques used for the production, isolation and characterization of proteins. Letter grade only (A-F). (Lecture 3 hrs)

547. Biochemistry of Nucleic Acids (3)
Prerequisites: CHEM 441B, CHEM 541 with the grade of "C" or better; or consent of instructor. Gene expression with emphasis on regulatory mechanisms. Analytical techniques for isolation, purification, and characterization of nucleic acids. Letter grade only (A-F). (Lecture 3 hrs.)

548. Cell Membranes (3)
Prerequisites: BIOL 340, BIOL 370, CHEM 441A, CHEM 541 with the grade of "C" or better; or consent of instructor. Examination of modern membrane biochemistry. May include membrane structure and transport, phospholipid sorting, vesicular transport, membrane coat protein structure and function, and membrane-dependent signal transduction. Letter grade only (A-F). (Lecture 3 hrs.)

549. Biochemistry of Lipids and Lipoproteins (3)
Prerequisites: BIOL 340, CHEM 441B, CHEM 541 all with the grade of "C" or better; or consent of instructor. Current topics on the biochemistry of lipids and lipoproteins in health and disease. Lipid absorption, synthesis and transport; Cellular uptake of lipoproteins, lipid storage and mobilization; lipid signaling; cellular lipid efflux. Letter grade only (A-F). (Lecture 3 hrs)
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite/Notes</th>
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<tbody>
<tr>
<td>552</td>
<td>Selected Topics in Analytical Chemistry (3)</td>
<td>Prerequisite: CHEM 451 or consent of instructor. Including electrochemical measurements, chromatographic techniques, spectroscopic techniques, radiochemical analysis and basic electronic components of instrumentation. Emphasizing the chemical principles involved, utility and limitations of each method. Includes trace analysis of water and air. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Lecture 3 hrs.)</td>
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<tr>
<td>553</td>
<td>Fundamentals of Electroanalytical Chemistry (3)</td>
<td>In-depth description of electrochemical processes and research techniques. Voltammeteric, potentiometric, and impedance methods. Scanning probe techniques. Analysis of current research literature related to electroanalytical chemistry and surface science. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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<tr>
<td>572</td>
<td>Advanced Physical Chemistry (3)</td>
<td>Prerequisite: CHEM 371B or consent of instructor. Special topics in physical chemistry. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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<tr>
<td>573</td>
<td>Molecular Spectroscopy (3)</td>
<td>Prerequisite: CHEM 371B or consent of instructor. The interaction of electromagnetic radiation with atoms and molecules. Symmetry properties of molecules and the Hamiltonian. Angular momentum and the spectra of atoms and molecules. Pure rotational, vibrational, Raman, and electronic spectra of molecules. Understanding and predicting molecular spectra. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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<tr>
<td>574</td>
<td>Kinetics and Dynamics (3)</td>
<td>Prerequisite: CHEM 371A or consent of instructor. Reaction rates for chemical systems; dependence on concentration and temperature. Derivation of the mechanisms of chemical reactions. Kinetic theory and analysis of experimental results for different systems. Dynamics of chemical reactions; transition state theory, potential-energy surfaces, and reaction pathways. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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<tr>
<td>580/480</td>
<td>Biomolecular Modeling and Simulation (3)</td>
<td>Prerequisites: CHEM 220A; MATH 123 (may be taken concurrently); PHYS 100B or PHYS 152, all with a grade of &quot;C&quot; or better. The study of biomolecular phenomena using computer-based modeling and simulation techniques with varying degrees of resolution, including development and validity of molecular models. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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<tr>
<td>581</td>
<td>Biological Performance of Materials (3)</td>
<td>Advance studies of the chemical and mechanical interactions between materials used in medical devices and implants and living organisms. The course content includes materials response to biological system and host response to biomaterials. Letter grade only (A-F). (Lecture 3 hrs.)</td>
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**555A. Colloquium in Biochemistry (1)**

**555B. Colloquium in Organic Chemistry (1)**

**555C. Colloquium in Analytical, Physical and Inorganic Chemistry (1)**

Prerequisite: Graduate standing or consent of instructor. Discussion of advances as reported in recent literature. Provides experience in library use, organization, presentation, and critical evaluation of the chemical literature. May be repeated to a maximum of 3 units (not more than a total of 3 units may be earned in any combination of CHEM 595 courses). Letter grade only (A-F). (Seminar 1 hr.)

**660. Seminar in Chemistry (1)**

Weekly meetings for presentation and discussion of advanced work in special fields including original research by faculty and graduate students. Credit/No Credit grading only. (Seminar 1 hr.) May be repeated to a maximum of 3 units.

**695. Directed Reading (1)**

Survey of information in chemical literature on a current research topic, under direction of a faculty member. Written report prepared from these readings. Letter grade only (A-F).

**697. Directed Research (1-6)**

Prerequisite: Arrangement with instructor. Laboratory work supervised on an individual basis. A written report will be required. Letter grade only (A-F). May be repeated to a maximum of 3 units.

**697C. Directed Research (1-3)**

Prerequisite: Arrangement with Instructor Continuation of laboratory work supervised on an individual basis. A written report will be required. Credit/No Credit grading only. May be repeated to a maximum of 3 units.

**698. Thesis (1-6)**

Prerequisites: Advancement to candidacy for M.S. in Chemistry or M.S. in Biochemistry and arrangement with instructor. Planning, preparation and completion of a thesis in chemistry or biochemistry. Letter grade only (A-F).
CHICANO AND LATINO STUDIES
College of Liberal Arts

Department Chair: Jose F. Moreno
Department Office: Faculty Offices F03-300
Telephone: (562) 985-4644
Website: http://www.cla.csulb.edu/departments/chls/

Faculty: Luis Arroyo, Juan Benitez, Antonia Garcia-Orozco, Jose
F. Moreno, Rigoberto Rodriguez, Victor Rodriguez, Anna Sandoval,
Maythee Rojas

Department Administrative Support Coordinator: Michelle
Seales

Students desiring information should contact the department office
for referral to the academic advisor.

ATLAS
Telephone: (562) 985-7531

Career Possibilities
Social Scientist • Archivist • Social Worker • Journalist •
Counselor • Teacher • Public Relations Consultant • Law
• Community Organizer • School Administrator • Linguist •
Parole Officer • Probation Officer • Editor • Writer • Urban/
Regional Planner • Public Policy Administrator • Foreign
Policy Officer • Researcher (Some of these, and other
careers, require additional education or experience. For
more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Arts in Chicano and Latino Studies (120 units)

Requirements
A minimum of 33 units is required for the major in Chicano
and Latino Studies; 6 lower division and 27 upper-division
units.

Lower Division (6 units):
Take two of the following:
- CHLS 100 Introduction to Chicano & Latino Studies (3)
  Prerequisite/Corequisite: One course from GE category A2.
- CHLS 101 Introduction to Chicano/a & Latino/a Life (3)
  Prerequisite: None
- CHLS 105 Latina/o Cultural Identity (3)
  Prerequisite/Corequisite: One course from GE category A2.
- CHLS 150 Introduction to Chicano Literary Studies (3)
  Prerequisite/Corequisite: One course from GE category A1

Upper Division (27 units)
Take the following core:
- CHLS 300 Chicano History (3)
  Prerequisites: GE Foundation requirements.
- CHLS 310 Chicana/o and Latina/o Thought and Action (3)
  Prerequisites: None
- CHLS 350 The Latino Population in the U.S. (3)
  Prerequisite: GE Foundation requirements.

CHLS 498 Senior Colloquium (3)
Prerequisite: Consent of the instructor.

Take 15 units of electives from the following:

Cultural Studies:
- CHLS 315, CHLS 330, CHLS 341, CHLS 360, CHLS
  370, CHLS 375, CHLS 380, CHLS 390, CHLS 420,
  CHLS 450, CHLS 450A, CHLS 490, CHLS 499

Social Inquiry:
- CHLS 303, CHLS 319, CHLS 320, CHLS 335, CHLS
  340, CHLS 345, CHLS 352, CHLS 362, CHLS 400,
  CHLS 415, CHLS 421, CHLS 430, CHLS 470, CHLS
  490, CHLS 499

Departmental Language Requirement:
Take one of the following options:
1. Two years of college Spanish;
2. Successful completion of the following course:
   SPAN 250 Spanish for Bilinguals (6)
   Prerequisite: Near native speaker oral skills and GE
   Foundation requirements (or concurrent enrollment in at
   least one Foundation course).
3. A score of 4 or above on the high school advanced
   placement exam in Spanish language or literature;
4. Successful completion of a CHLS department
   proficiency exam.

Special Track
In addition to the general major in Chicano and Latino
Studies, the department also offers a program for students
who wish to complete a Special Track major in Chicano
and Latino Studies. Within the Special Track, students
may receive up to a maximum of 6 units of credit for upper
division Chicano and Latino Studies related course work
taken from other disciplines. Students wishing to pursue the
Special Track major must develop an approved program of
study in consultation with the Chicano and Latino Studies
Department chair and/or academic advisor.

The Special Track consists of 33 units total, 27 of which
must be upper division, including the following:

Lower Division (6 units):
Take two of the following:
- CHLS 100 Introduction to Chicano & Latino Studies (3)
  Prerequisite/Corequisite: One course from GE category A2.
- CHLS 101 Introduction to Chicano/a & Latino/a Life (3)
  Prerequisite: None
- CHLS 105 Latina/o Cultural Identity (3)
  Prerequisite/Corequisite: One course from GE category A2.
- CHLS 150 Introduction to Chicano Literary Studies (3)
  Prerequisite/Corequisite: One course from GE category A1

Upper Division (27 units)
Take the following core (12 units required):
- CHLS 300 Chicano History (3)
  Prerequisites: GE Foundation requirements.
- CHLS 310 Chicana/o and Latina/o Thought and Action
  (3)
  Prerequisites: None
CHLS 350 The Latino Population in the U.S. (3)
Prerequisite: GE Foundation requirements.

CHLS 498 Senior Colloquium (3)
Prerequisite: Consent of the instructor.

**Special Track** (15 units):
A maximum of 6 units of course work from other disciplines, selected with the approval of the Chicano and Latino Studies Department advisor. Students must also complete CHLS Upper Division electives (9 units) from the following:

**Cultural Studies:**
CHLS 315, CHLS 330, CHLS 341, CHLS 370, CHLS 380, CHLS 390, CHLS 395, CHLS 420, CHLS 450, CHLS 450A, CHLS 490, CHLS 499

**Social Inquiry:**
CHLS 319, CHLS 320, CHLS 335, CHLS 340, CHLS 352, CHLS 362, CHLS 400, CHLS 415, CHLS 421, CHLS 430, CHLS 470, CHLS 490, CHLS 499

**Language Requirement:** The language requirement may be met by one of the following options:
1. Two years of college Spanish;
2. Successful completion of the following:
   - SPAN 250 Spanish for Bilinguals (6)
     Prerequisite: Near native speaker oral skills and GE Foundation requirements (or concurrent enrollment in at least one Foundation course);
   - A score of 4 or above on the high school advanced placement exam in Spanish language or literature;
   - Successful completion of a CHLS department proficiency exam.

**Minor in Chicano and Latino Studies**

**Prerequisite**
Proficiency in Spanish which may be met by one of the following options:
1. Two years of college Spanish;
2. Successful completion of the following:
   - SPAN 250 Spanish for Bilinguals (6)
     Prerequisite: Near native speaker oral skills and GE Foundation requirements (or concurrent enrollment in at least one Foundation course);
   - A score of 4 or above on the high school advanced placement exam in Spanish language or literature;
   - Successful completion of a proficiency exam.

**Requirements**
Upper Division: (18 units)
Take the following core (12 units):
CHLS 300 Chicano History (3)
Prerequisites: GE Foundation requirements.

CHLS 310 Chicana/o and Latina/o Thought and Action (3)
Prerequisite: None

CHLS 350 The Latino Population in the U.S. (3)
Prerequisite: GE Foundation requirements.

CHLS 498 Senior Colloquium (3)
Prerequisite: Consent of the instructor.

Take 6 units selected from the following courses:
**Cultural Studies:**
CHLS 315, CHLS 330, CHLS 390, CHLS 341, CHLS 380, CHLS 420, CHLS 490, CHLS 499

**Social Inquiry:**

CHLS 319, CHLS 320, CHLS 335, CHLS 340, CHLS 352, CHLS 362, CHLS 400, CHLS 415, CHLS 421, CHLS 430, CHLS 470, CHLS 490, CHLS 499

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**Chicano and Latino Studies Courses (CHLS)**

**LOWER DIVISION**

100. *Introduction to Chicano and Latino Studies* (3)
Prerequisite/Corequisite: One course from GE category A2.
This is an introductory-level course designed to acquaint students with the most important social, political, economic and historic aspects of the Chicano/Latino experience in the United States. Chicano/Latino experiences will be examined within historic and contemporary policy-based frameworks.
Letter grade only (A-F).

101. *Introduction to Chicano/a and Latino/a Life* (3)
Examination of four themes: 1) the cultural formation and transformation of Chicano/Latino communities; 2) the role of women in shaping Chicano/Latino culture; 3) Chicano/Latino music and visual art; 4) Mexican and Latino immigrants in American culture.

104. *Composition II* (3)
Prerequisites: Score of 147 or higher on the English Placement Test; “C” or better in CHLS 104S, AFRS 100S, ASAM 100S, ENGL 100S, ALI 150; or consent of instructor.
Expository writing course designed for first-year students. Satisfies one of the writing requirements for general education at CSULB. Emphasizes academic writing, focusing primarily on analytical reading and thesis-driven writing.
Multiple Offerings: ENGL 100, AFRS 100, ASAM 100. Not open for credit to students with credit in: ENGL 100, AFRS 100, ASAM 100.

104S. *Composition I* (3)
Prerequisites: Students who score 146 or below on the English Placement Test; “C” or better in CHLS 104S, AFRS 100S, ASAM 100S, ENGL 100S, ALI 150; or consent of instructor.
Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading, as well as to the developing stronger reading comprehension for specific writing tasks.
Same course as ASAM 100S, AFRS 100S, ENGL 100S. Not open for credit to students with credit in: CHLS 1, AFRS 1, ASAM 1, ENGL 1, AFRS 100S, ASAM 100S, ENGL 100S, ESW 100S.

105. *Latina/o Cultural Identity* (3)
Prerequisite/Corequisite: One course from GE category A2.
Explores, comparatively, the development of Chicano-Latino identities through a survey of social scientific, historical and literary sources from Mexican American and Latino regional cultures, tracing the development of societal divisions based on gender, race, ethnicity and class categories.

150. *Introduction to Chicano Literary Studies* (3)
Prerequisite/Corequisite: One course from GE category A1.
Introductory survey course in Chicano and Latino literature covering traditional and contemporary literary styles and forms from selected translated Chicano and Latino readings.
Letter grade only (A-F). Not open for credit to students with credit in CHLS 205.
215. U.S. Diversity and the Ethnic Experience (3)
Prerequisites: Open only to Integrated Teacher Education Program students.
Survey of four major ethnic groups (American Indians, African American, Latino American, and Asian American) in American society from the colonial era to the present. Special attention to formation and transformation of each ethnic group and their individual and collective roles in the development of the United States.
Letter grade only (A-F). Same course as AIS 215, AFRS 215, and ASAM 215. Not open for credit to students with credit in AIS 215, AFRS 215, or ASAM 215.

224. Introduction to Mexican Culture through its Music (3)
Prerequisite: GE Foundation requirements.
Covers the development of Mexican culture through its music from pre-Hispanic time to the present. The scope of the class includes the development of the relationship between Mexico’s political history, and its music.
Letter grade only (A-F).

258. Introduction to Cultures of Latin America and the Caribbean through Music (3)
Prerequisite: GE Foundation requirements.
Introduction to Latin America and Caribbean cultures through music from the pre-Hispanic era to the present. The course will focus on the historical, geographical, and political contexts of various Latin American and Caribbean musical genres.
Letter grade only (A-F).

UPPER DIVISION

300. Chicano History (3)
Prerequisites: GE Foundation requirements.
Chicanos in the settlement and development of the Southwest and in contemporary U.S. society; Chicano experience as a U.S. minority group; emerging civil rights movement of La Raza.
Letter grade only (A-F). Same course as HIST 370. Not open for credit to students with credit in HIST 370.

303. Farm Workers (3)
Prerequisites: Upper division standing
This course explores why the United Farm Workers succeeded where all earlier efforts failed in unionizing farm workers. It also examines why farm workers are worse off today, in spite of Cesar Chavez, Dolores Huerta, and Larry Itliong.
Letter grade only (A-F).

310. Chicana/o and Latina/o Thought and Action (3)
Study of the ideas, philosophies and events affecting Chicano life; identification and examination of the Chicano world view, of a Chicano reality.

315. Contemporary Indigenous Peoples of Aztlán and Latin America (3)
Contemporary Indigenous Nations Studies of Latin and US America focused on the Aztec, Pueblo, Taíno, Maya, Pipil, Aymara, Chicaqno/Latino and Mauri in transnational contexts. Uses international indigenous film, literature, performance, history, economic, diasporic, gender, Chicano/Latino, and American Indian studies approaches.
Not open for credit to students with credit in AIS 315.

319. The Ethnic Experience in the U.S. (3)
Prerequisite: GE Foundation requirements.
Examination of the dynamics of the development of our multicultural society, emphasizing study of the four distinct ethnic strands of American society (Asian American, Black American, Mexican American, and American Indian) and their role in the maintenance of cultural diversity in the United States.
Same course as AFRS 319, AIS 319, and ASAM 319. Not open for credit to students with credit in AFRS 319, AIS 319, ASAM 319, or WGSS 319. (Lecture/Discussion.)

320. Wealth and Poverty in Latino Communities (3)
Introduction to the interlocking processes of creating wealth and producing poverty in the context of Latino communities in the United States. The focus will be comparative and will critically examine theories used to explain poverty and wealth.
Letter grade only (A-F).

330. Critical Issues in Chicana and Latina Studies (3)
Prerequisite: Upper division standing or consent of instructor.
Introduces students to four critical themes in contemporary Chicana and Latina feminist scholarship: 1) power and resistance; 2) construction of work, family, culture; 3) cultural representations/presentations; and 4) social and biological reproduction.

335. Asian and Latino Immigration Since World War II (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the causes of massive Asian and Latino immigration as well as major contemporary issues in the Asian and Latino communities.
Same course as ASAM 335. Not open for credit to students with credit in ASAM 335. (Lecture and discussion 3 hours)

340. Latino Education in the U.S. (3)
Survey of Latinos in the U.S., including topics such as immigration, settlement patterns, employment, family, language and culture. Emphasis is on racism and the intersections of class and gender and the heterogeneity of the Latino population.
Letter grade only (A-F).

341. Asian American and Chicano/Latino Cinema (3)
Prerequisites: GE Foundation requirements.
A team-taught course exploring connections between Asian American and Chicano/Latino cinema, with emphases given to grounding issues presented in films within historical, literary, and cultural studies frameworks.
Same course as ASAM 341. Not open for credit to students with credit in CHLS 403 or ASAM 341 or ASAM 403.

345. Latino/a Leadership in STEM (3)
Prerequisites: Scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for GWAR Writing Intensive Capstone.
This course explores the topic of Latino/a underrepresentation in Science, Technology, Engineering and Math-based fields (STEM). Through lens of education, this course includes historical contributions of Latinos/as in STEM, current status of Latinos/as in STEM and examination of educational interventions.
Letter grade only (A-F)
350. The Latino Population in the United States (3)
Prerequisite: GE Foundation requirements.
Survey of the comparative historical, transnational, cultural and socio-economic experience (including class, gender, immigration and settlement patterns) of the various Latino sub-groups in the United States.
Letter grade only (A-F). Same course as SOC 340. Not open for credit to students with credit in SOC 340.

352. Central American and Caribbean Peoples in California (3)
Survey of the socioeconomic conditions and cultural life of the Central American and Spanish-speaking Caribbean communities in California, such as Salvadoran, Guatemalan, Puerto Rican, and Cuban communities. Similarities and differences with the Mexican-American community will be examined.
Same course as SOC 341. Not open for credit to students with credit in SOC 341.

360. Chicana/o and Latina/o Rhetoric (3)
Prerequisites: Scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for GWAR Writing Intensive Capstone.
Survey of public discourse of Chicana/o and Latina/o socio-political movements.
Letter grade only (A-F)

362. Latinas/os, Law and Public Policy (3)
Analysis of the relationship of the Chicano to the U.S. legal and judicial system. Topics include traditional sociological and criminological theories of Chicano criminality, the Pachuco image, and Chicano experiences with the police and correctional institutions.
Letter grade only (A-F).

370. Chicana/o and Latina/o Literature (3)
Prerequisite: GE Foundation and upper-division status. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for GWAR Writing Intensive Capstone.
Comparative study of literature and culture by Chicanas/os and Latinas/os within a range of historical, social, and political contexts. Focus on narrative, poetry, film, and the visual and performing arts.
Letter grade only (A-F). Same course as ENGL 370. Not open for credit to students with credit in ENGL 370.

375. Latinas and the Prison System: A Comparative Perspective (3)
Prerequisites: Upper division standing or consent of instructor
Examines how race, class, nation and sexuality impact Chicana/ Latinas in the detention and prison systems. Offers a comparative analysis with Black women’s experiences. Includes analyzing racialized criminalization, juvenile delinquency, immigration detention, sexual violence, substance abuse and the prison abolition movement.
Letter grade only (A-F)

380. Chicano/Latino Theatre (3)
Prerequisite: Upper-division standing
Explores evolution of Chicano/a-Latino/a Theatre within sexual/ ethnic/cultural identity context. Comprehensive analysis of theatrical texts and performance arts developed from Pre-Cuauhtemoc to contemporary Chicano/a-Latino/a playwrights.

390. The U.S.-Mexico Borderlands: Historic and Literary Images (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Critical, interdisciplinary examination of the portrayals of Latinos in selected historical and literary texts by Euro-American authors.

400. Chicana/o and Latina/o Politics in the U.S. (3)
Prerequisites: Upper-division standing and GE Foundation requirements.
Interdisciplinary introduction to the history, theories, ideologies, strategies and public policy issues by which Chicanas/os and Latinas/os have struggled to achieve power and social mobility in the United States.
Letter grade only (A-F).

415. Latina Women in the United States (3)
Prerequisite: Junior standing or consent of instructor.
Examines cultural, political, economic, and sexual forces that mold Latina women. Focus on cultural stereotypes, class, gender, identity, sexuality, and politics of race.
Same course as WGSS 320. Not open for credit to students with credit in WGSS 320.

420. Chicano Heritage in the Arts of Mexico and the Southwest (3)
Historical and philosophical analysis of Indian Mestizo and Chicano plastic arts, music and dances as a way to understand the Chicano heritage.

421. Street Gangs in Comparative Perspective (3)
Analyzes the relationships of the Chicano gangs with African American, the South East Asian, and the White street gangs across the United States. Structural forces such as proletarian socialization, patriarchy traditions and problems revolving around gender identity are examined.
Letter grade only (A-F).

430. The Latino Transnational Experience in the Caribbean: Empire, Reform and Revolution (3)
Prerequisites: Upper division standing or consent of instructor.
Interdisciplinary exploration of the political, economic and social forces that have shaped U.S.-Hispanic Caribbean relations. Ideologies and events after the Cuban-Spanish-American War of 1898 will be analyzed. Focusing on how U.S. policies shaped the institutional development of the Caribbean.
Letter grade only (A-F).

450. 1492 and Beyond (3)
Prerequisites: GE Foundation requirements, completion of one or more Exploration courses and upper-division standing.
Explores cultural changes that resulted from contact among peoples of Europe, Africa, Asia, and the Americas from 1492 to the present. Incorporates art, literature, social sciences, history, architecture, and related fields.
Same course as RGR 450. Not open for credit to students with credit in RGR 450.

450A. Latinas and Revolution: Central America and Late 20th Century Mexico (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1) and upper-division standing or consent of instructor.
Examines how war and struggles for democracy shape the social consciousness and political activism of Latinas. Uses literature, film, history, and political theory to examine the role of violence in women’s lives, community organizing, and the conceptualization of a pan-Latina feminist movement.
Letter grading only (A-F). Same course as WGSS 445A. Not open for credit to students with credit in WGSS 445A.
470. Latinas/Latinos: Health Status and Health Care Access (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary exploration of policies, epidemiologic, cultural factors influencing disease within Latino subpopulations, their impact upon efficient, equitable service delivery. (16 words)
Letter grade only (A-F). Same course as HCA 470. Not open for credit to students with credit in HCA 470.

490. Selected Topics in Chicano and Latino Studies (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in Chicano and Latino Studies selected for intensive development.
May be repeated to a maximum of 6 units in different semesters. Topics announced in the Schedule of Classes.

498. Senior Colloquium (3)
Prerequisite: Consent of the instructor.
Analysis of issues and problems in Chicano and Latino studies. Designed as a seminar in research and methodology. The material discussed will center about a general theme selected by the instructor.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters with different topics but no more than three units may be used to satisfy the requirements for the major.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Preparation of research reports on selected topics relating to the Mexican-American.
May be repeated for a maximum of six units. Letter grade only (A-F).
CHILD DEVELOPMENT AND FAMILY STUDIES

College of Health and Human Services
Department of Family and Consumer Sciences

Department Chair: Wendy Reiboldt
Department Office: Family and Consumer Sciences (FCS) - 001
Telephone / Fax: (562) 985-4484 / 985-4414
Website: www.csulb.edu/colleges/chhs/departments/fcs
Faculty: Mariné Aghekyan, Michelle Barrack, Lee Blecher, Marie Botkin, Maria Claver, Gail C. Frank, Virginia Gray, Libby Gustin, Young Ha, HyeJeong Kim, James E. Koval, Peter Kreysa, Suzanne Marshall, Nilufar Medora, Wendy Reiboldt, Cheryl Rock, Roudi Roy, Myunghee Sohn, Richard V. Tuveson, Long Wang, Jung-Mao (Ronnie) Yeh
Baccalaureate Program Coordinator: Richard V. Tuveson
Graduate Coordinator: Virginia Gray
Administrative Support Coordinators: Mikal Lok, Marina Bendersky, Andrew Redmayne
Instructional Support Technician: Bonnie Rice

Career Possibilities
Preschool Administrator • Family Life Educator • Child Life Specialist • Teen Pregnancy Counselor • Early Care Educator (Infant and Toddler Care, Preschool Teaching, School-Age Programs) • Child Development Consultant • Community Resource and Referral Professional • Parent Educator • Corporate Human Service Consultant • Working with Military Families • Toy Research and Development
A credential or graduate degree would expand employment opportunities to include: Social Worker • Marriage and Family Counselor • Community College Instructor • Highschool Counselor • Teacher (For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Arts in Family and Consumer Sciences
This degree offers six options:
• Child Development and Family Studies
• Consumer Affairs
• Family and Consumer Sciences Education
• Family Life Education
• Fashion Design
• Fashion Merchandising
Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Science in Dietetics and Food Administration
This degree offers two options:
• Nutrition and Dietetics
• Food Science

Bachelor of Science in Hospitality Management
Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Child Development and Family Studies
Child Development and Family Studies (CDFS) strives to improve the lives of children and families. As an integrative and interdisciplinary specialization, CDFS incorporates information from a variety of disciplines to provide a comprehensive academic and professional background for working with children and families. We use primary prevention to empower individuals and families in home and community settings.

Option in Child Development and Family Studies (120 units)
Take all of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites/ Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 100</td>
<td>General Psychology</td>
<td>Students who score 147 or above on the English Placement Test or “C” or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.</td>
</tr>
<tr>
<td>CAFF 321</td>
<td>Family and Consumer Resource Management</td>
<td>GE Foundation requirements, one or more Exploration courses, and upper division standing.</td>
</tr>
<tr>
<td>CDFS 111</td>
<td>Preschool Child</td>
<td>None.</td>
</tr>
<tr>
<td>CDFS 211</td>
<td>Guiding Young Children</td>
<td>A grade of “C” or better in PSY 100 or SOC 100 or CDFS 111.</td>
</tr>
<tr>
<td>CDFS 312</td>
<td>Family and Personal Development</td>
<td>GE Foundation requirements; PSY 100 or SOC 100 or ANTH 120; upper division standing; or consent of instructor.</td>
</tr>
<tr>
<td>CDFS 411</td>
<td>Individual Child Study and Guidance</td>
<td>A grade of “C” or better in CDFS 311 or CDFS 314 or HDEV 307 or PSY 361; upper division standing; or consent of instructor.</td>
</tr>
<tr>
<td>CDFS 413</td>
<td>Child and Family in the Community</td>
<td>A grade of “C” of better in CDFS 312; upper division standing; or consent of instructor.</td>
</tr>
<tr>
<td>FCS 299</td>
<td>Intro to Family and Consumer Sciences</td>
<td>None. Not open for credit to students with credit in FCSE 299.</td>
</tr>
<tr>
<td>FCS 499</td>
<td>Professionalism and Leadership in FCS</td>
<td>FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation. Not open for credit to students with credit in FCSE 499.</td>
</tr>
<tr>
<td>NUTR 132</td>
<td>Introductory Nutrition</td>
<td>Any GE Foundation course.</td>
</tr>
</tbody>
</table>
Take one of the following courses:

- ANTH 120 Introduction to Cultural Anthropology (3)
  Prerequisites: Any GE Foundation course.
- Another approved Global Issues course (3)

Take one of the following pairs:

- CDFS 214 Environments for Preschool Children (3)
  Prerequisites: A grade of "C" or better in CDFS 111; or consent of instructor.
- CDFS 414 Field Work with Preschool Children (3)
  Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 214; or consent of instructor.
  or
- CDFS 215 Environments for Infants and Toddlers (3)
  Prerequisites: A grade of "C" or better in CDFS 111; or consent of instructor.
- CDFS 415 Field Work with Infants/Toddlers (3)
  Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 215; or consent of instructor.

Take one of the following courses:

- CDFS 311 Prenatal Development and Infancy (3)
  Prerequisites: A grade of "C" or better in CDFS 111; upper division standing.
- CDFS 314 The Older Child (3)
  Prerequisites: A grade of "C" or better in CDFS 111; upper division standing; or consent of instructor.

Take one of the following courses:

- FCS 392A Field Experience in Child Development and Family Studies (3)
  Prerequisites: Upper division standing; major in Family and Consumer Sciences with an Option in Child Development and Family Studies; Consent of Instructor. Not open for credit to students with 6 units of FCSE 392. May not be taken concurrently with CDFS 492A or CDFS 492B.
- CDFS 492A Internship in Child Development and Family Studies (3)
  Prerequisites: Student must be a Family and Consumer Sciences: Child Development and Family Studies major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Child Development and Family Studies; and CDFS 411, CDFS 413, and CDFS 414 or CDFS 415. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. Students receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. CDFS 492A may not be taken concurrently with CDFS 492B or FCS 392A.
- CDFS 414 (2nd semester) Fieldwork with Preschool Children (3)
  Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 214; or consent of instructor.
- CDFS 415 (2nd semester) Fieldwork with Infants/Toddlers (3)
  Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 215; or consent of instructor.
- FCS 497 Directed Studies (3)
  Prerequisites: Junior standing; consent of instructor. Not open for credit to students with credit in FCSE 497.

Take 9 units of advisor-approved electives. Three of the 9 units must be upper division.

Take 15 units from the following with advisor's approval:

- CDFS 319, CDFS 402, CDFS 407, CDFS 408, CDFS 409, CDFS 410, CDFS 412, CDFS 416A, CDFS 416B, CDFS 418, CDFS 419, or CDFS courses not taken above.

Each course on the student's program planner must be completed with a grade of "C" or higher. In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with the approval of the Student Transfer Agreement Reform Act (SB 1440-Padilla). Students who complete an approved A.A.-T or A.S.-T degree in Early Childhood Education or in Child and Andolescent Development at a California Community College can meet B.A. in FCS: Option in CDFS requirements with no more than 60 additional units. Contact a CDFS faculty advisor for assistance in program planning.

Minor in Child Development and Family Studies

The Child Development and Family Studies (CDFS) minor offers the opportunity to take a concentration of courses focusing on children and families. By providing students with an aggregate of CDFS courses students will be better prepared careers relating to children and families in an array of settings.

Requirements

Students seeking a minor in CDFS must meet all prerequisite course requirements. In addition, students must maintain a "C" or better in all courses required for the minor. The minor requires 21 total units.

The minor in Child Development and Family Studies is not available to Child Development and Family Studies majors.

Take 9 units of core courses from the following courses:

- CDFS 111 Preschool Child (3)
  Prerequisites: None.
- CDFS 312 Family and Personal Development (3)
  Prerequisites: GE Foundation requirements; PSY 100 or SOC 100 or ANTH 120; upper division standing; or consent of instructor.
- CDFS 319 Family Stress and Coping (3)
  Prerequisites: GE Foundation requirements; ANTH 120 or PSY 100 or SOC 100 or consent of instructor; students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Take 12 units selected from the following courses:

- CDFS 211, CDFS 214, CDFS 215, CDFS 311, CDFS 314, CDFS 409, CDFS 410, CDFS 411, CDFS 412, CDFS 413, CDFS 414, CDFS 415, CDFS 418.

Family Life Education

This option is available in the Department of Family and Consumer Sciences. It was introduced in response to a certification process developed by the National Council on Family Relations (NCFR). NCFR is the leading national organization for professionals concerned with promoting and enhancing the quality of family life. NCFR sponsors the only national program to certify family life educators.

After completing the recommended preparatory course work in this department, it is possible to get two types of certification.
from NCFR:
Provisional Certification from the National Council on Family Relations (NCFR) is available to students who complete the approved courses that correspond to the ten substance areas from an approved program, but without the minimum two years of work experience.

Full Certification from the NCFR is available to students who graduate from an approved academic program and have completed at least two years of work experience as a family life educator. The work experience of the student has to be submitted, reviewed, and approved by an NCFR review committee.

Interested students should contact the Family Life Education Coordinator, Dr. Nilufer P. Medora, Family and Consumer Sciences (562) 985-4488 or at medora@cslub.edu

Option in Family Life Education (120 units)
This option provides an academic and professional background for work with children, adults, couples, and families. It offers an interdisciplinary foundation in several areas that influence and enhance the quality of life of children, adults, couples, and families based on education, enrichment and prevention. Fieldwork opportunities where students have direct experiences with individuals and families in the community are provided for qualified students.

Requirements
Take all of the following courses:
CDFS 111 Preschool Child (3)
Prerequisites: None.

CDFS 312 Family and Personal Development (3)
Prerequisites: GE Foundation requirements; PSY 100 or SOC 100 or ANTH 120; upper division standing; or consent of instructor.

CDFS 319 Family Stress and Coping (3)
Prerequisites: GE Foundation requirements; ANTH 120 or PSY 100 or SOC 100 or consent of instructor; students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

CDFS 402 Child and Family Law (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing.

CDFS 410 International Families: Families in Cross-Cultural Perspectives (3)
Prerequisites: A grade of "C" or better in CDFS 312; or consent of instructor.

CDFS 411 Individual Child Study and Guidance (3)
Prerequisites: A grade of "C" or better in CDFS 311 or CDFS 314 or HDEV 307 or PSY 361; upper division standing; or consent of instructor.

CDFS 413 Child and Family in the Community (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing; or consent of instructor.

CDFS 418 Parent Education (3)
Prerequisites: Upper-division standing and at least 6 units of upper division child development and family studies or equivalent courses, or consent of instructor.

CDFS 419 Family Life Education (3)
Prerequisites: A grade of "C" or better in CDFS 413; upper division standing; or consent of instructor.

CDFS 492B Internship in Family Life Education (3)
Prerequisites: Student must be a major in Family and Consumer Sciences in the option of Family Life Education; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; have approval of a faculty advisor in Child Development and Family Studies; have completed CDFS 413 and CDFS 419 each with a grade of "C" or higher. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. Students receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. CDFS 492B may not be taken concurrently with CDFS 492A or FCS 392A.

CAFF 321 Family & Consumer Resource Management (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

FCS 299 Introduction to FCS (1)
Prerequisites: None.
Not open for credit to students with credit in FCSE 299.

FCS 499 Professionalism and Leadership in Family and Consumer Sciences (1)
Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation. Not open for credit to students with credit in FCS 499.

HSC 425 Human Sexuality and Sex Education (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing. Recommended: PSY 100.

NUTR 132 Introductory Nutrition (3)
Prerequisites: Any GE Foundation course.

PSY 100 General Psychology (3)
Prerequisites/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

Take one the following courses:
ANTH 120 Introduction to Cultural Anthropology (3)
Prerequisites: Any GE Foundation course.

Another approved Global Issues course (3)
Take one of the following courses:
GERN 400 Perspectives on Gerontology (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing.

HDEV 357 Approaches to Adulthood Through Aging (3)
Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.

Take one of the following courses:
CDFS 311 Prenatal Development and Infancy (3)
Prerequisites: A grade of "C" or better in CDFS 111, upper division standing.

CDFS 314 The Older Child (3)
Prerequisites: A grade of "C" or better in CDFS 111; upper division standing; or consent of instructor.

Take the following course:
CDFS 412 Family Interaction (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing; or consent of instructor.

Take 9 units of advisor-approved electives. Three of the 9 units must be upper division.
In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C", may proceed with other courses with the approval of the Child Development and Family Studies Area Coordinator. Each course on the student's program planner must be completed with a grade of "C" or higher.
Child Development and Family Studies Courses (CDFS)

LOWER DIVISION

111. Preschool Child (3)
Behavior and development in early childhood, with emphasis on the interaction of parents, children and teachers.
(Lecture-discussion 3 hours)

211. Guiding Young Children (3)
Prerequisites: A grade of "C" or better in PSY 100 or SOC 100 or CDFS 111.
Processes, techniques, models, research, and selected issues in child guidance as applied to 3-5 year-old children in family and community settings. Development of a personal approach to guidance based on current scientific research and theory concerning child development.
(Lecture-discussion 3 hours)

214. Environments for Preschool Children (3)
Prerequisites: A grade of "C" or better in CDFS 111; or consent of instructor.
Introduction to preschool care-giving practices. Growth and development of preschool children relating to the classroom environment. Application of theories, models, and research to current preschool classroom practices.
Letter grade only (A-F). (Lecture-discussion 3 hours)

215. Environments for Infants and Toddlers (3)
Prerequisites: A grade of "C" or better in CDFS 111; or consent of instructor.
Introduction to infant and toddler care-giving practices. Growth and development of children from birth through three years of age relating to the classroom environment. Application of theories, models, and research to current infant and toddler classroom practices.
Letter grade only (A-F). (Lecture-discussion 3 hours)

219. Stress, Coping and Resiliency for the Professional Educator (3)
Prerequisites: A grade of "C" or better in ENGL 100 or GE Composition (Area A1).
Identification of stressors which diminish the effectiveness of the learning environment for at-risk school children. Use Family Resiliency Model to examine critical family dynamics. Practical stress management for future teachers.
Letter grade only (A-F). (Lecture-discussion 3 hours)

290. Directed Studies (1-3)
Independent study under the direction of a faculty member.
Exploration and experience in areas which are not a part of any regular course.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. (Seminar)

UPPER DIVISION

311. Prenatal Development and Infancy (3)
Prerequisites: A grade of "C" or better in CDFS 111; upper division standing.
Human development from conception through prenatal development, childbirth, the neonatal period, infancy and toddlerhood with emphasis on the various aspects of development and the environmental/social factors essential for human growth.
(Lecturer-discussion 3 hours)

312. Family and Personal Development (3)
Prerequisites: GE Foundation requirements; PSY 100 or SOC 100 or ANTH 120; upper division standing; or consent of instructor.
Interdisciplinary introduction to the concepts underlying contemporary American family life and the influence of social and cultural conditions on human development.
(Lecture-discussion 3 hours)

314. The Older Child (3)
Prerequisites: A grade of "C" or better in CDFS 111; upper division standing; or consent of instructor.
Behavior and development in middle and late childhood and adolescence, with emphasis on individual and cultural differences.
(Lecturer-discussion 3 hours)

319. Family Stress and Coping (3)
Prerequisites: GE Foundation requirements; ANTH 120 or PSY 100 or SOC 100 or consent of instructor; students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examination of theories and research associated with stressors affecting family functioning throughout the lifecycle. Consideration given to both normative transitions and non-normative stressors. Emphasis on strategies to assist families to deal productively with stress and change.
(Lecture-discussion 3 hours)

402. Child and Family Law (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing.
Establishment, conduct, and termination of marital and non-marital family relationships, including the rights and duties of the parties involved. Topics include marital disillusionment, child custody issues, property rights, domestic violence, adoption, support, genetic testing, and new trends in family law.
Letter grade only (A-F). (Lecture-discussion 3 hours)

407. The Hospitalized Child (3)
Prerequisite: CDFS and FLE majors and CDFS minors only; Upper division standing.
Child Life Education focus on the psychosocial care of children and their families in health care settings. Effects of medical environments on children and their families with emphasis on strategies for interactions that enhance family coping.

408. Transition to Parenthood (3)
Prerequisite: CDFS 312
An empirically based evaluation of the transition to parenthood. It examines how a baby, from the onset of pregnancy to one year after the child's birth, impacts a couple's relationship. Both theory and research are emphasized.
(3 hours lecture)

409. Language, Learning and the Developing Child: A Cross-Cultural Perspective (3)
Explores the communicative-linguistic, cognitive, physical, and socio-emotional development of the child from the prenatal to adolescent period across diverse cultures with an emphasis on language acquisition and the learning process.
Letter grade only (A-F). Not open for credit to students currently enrolled in the Liberal Studies program. Same course as EDEL 429. Not open for credit to students with credit in LING 429, EDEL 429, and EDP 428.
410. International Families: Families in Cross-Cultural Perspectives (3)
Prerequisites: A grade of "C" or better in CDFS 312; or consent of instructor.
Basic concepts and definitions relating cross-cultural studies will be discussed. Important family life cycle changes will be explained for major ethnic groups within the United States. Family life in selected international families will also be examined.
(Lecture-discussion 3 hours)

411. Individual Child Study and Guidance (3)
Prerequisites: A grade of "C" or better in CDFS 311 or CDFS 314 or HDEV 307 or PSY 361; upper division standing; or consent of instructor.
Analysis and interpretation of theory, research, trends and techniques for the study and guidance of the individual child in family and community settings.
(Lecture-activity 3 hours)

412. Family Interaction (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing; or consent of instructor.
Dynamics of interaction and communication in interpersonal relationships throughout the family life cycle. Experience with a variety of communication skills in small group settings.
(Lecture-discussion 3 hours)

413. Child and Family in the Community (3)
Prerequisites: A grade of "C" or better in CDFS 312; upper division standing; or consent of instructor.
Study of cultural varieties and the needs of the contemporary American family in an urban community; analysis of current issues and problems; identification of and experience with community resources and agencies.
(Lecture-discussion 3 hours)

414. Fieldwork with Preschool Children (3)
Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 214; or consent of instructor.
Supervised teaching/learning experience with preschool children including development of skills for observation and assessment as well as curriculum planning, implementation and evaluation.
May be repeated to a maximum of 6 units with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours)

415. Fieldwork with Infants/Toddlers (3)
Prerequisites: A grade of "C" or better in CDFS 111, CDFS 211, CDFS 215; or consent of instructor.
Supervised teaching/learning experience with preschool children including development of skills for observation and assessment as well as curriculum planning, implementation and evaluation.
May be repeated to a maximum of 6 units in different semesters with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours) Letter grade only (A-F).

416A. Introduction to Administration and Supervision of Child Development Programs (3)
Prerequisites: A grade of "C" or better in CDFS 414 or CDFS 415; or consent of instructor.
Minimum and recommended standards and laws pertaining to housing, equipment, play space, adult/child ratio, health supervision and meal service for children's programs. Selection and supervision of personnel, program planning and directing.
(Lecture-discussion 3 hours)

416B. Applications of Administration and Supervision of Child Development Programs (3)
Prerequisites: A grade of "C" or better in CDFS 416A; or consent of instructor.
Decision theory and its application, communication strategies, planning, operating and evaluating programs for young children.
(Lecture-discussion 3 hours)

418. Parent Education (3)
Prerequisites: Upper-division standing and at least 6 units of upper division child development and family studies or equivalent courses, or consent of instructor.
Principles and techniques for working with parents in community and school programs. Assessment of needs and development of programs for adults in a variety of social and cultural settings.
(Lecture-activity 3 hours)

419. Family Life Education (3)
Prerequisites: A grade of "C" or better in CDFS 413; upper division standing; or consent of instructor.
History, purpose, principles, ethics, ten substance areas, and paradigms of family life education will be explored. Planning, implementing, and evaluating family life education programs will be discussed. Gender, ethnicity, and diversity issues related to family life education will be stressed.
Letter grade only (A-F). (Lecture-discussion 3 hours)

492A. Internship in Child Development and Family Studies (3)
Prerequisites: Student must be a Family and Consumer Sciences: Child Development and Family Studies major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Child Development and Family Studies; have completed CDFS 411, CDFS 413, and CDFS 414 or CDFS 415. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. Students receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. CDFS 492A may not be taken concurrently with CDFS 492B or FCS 392A.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours)

492B. Internship in Family Life Education (3)
Prerequisites: Student must be a major in Family and Consumer Sciences in the option of Family Life Education; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; have approval of a faculty advisor in Child Development and Family Studies; have completed CDFS 413 and CDFS 419 each with a grade of "C" or higher. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. Students receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. CDFS 492B may not be taken concurrently with CDFS 492A or FCS 392A.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours)
Chinese Studies
College of Liberal Arts
Department of Asian and Asian American Studies

Department Chair: Teri Yamada
Vice Chair: Barbara W. Kim
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Faculty:
Ruixi Ai, Kiyomi Chinen, Masako O. Douglas, Linda N. España-Maram, Hiroko Kataoka, Hsin-sheng C. Kao (Emerita), Barbara W. Kim, Yoko Pusavant (Emerita), San-Pao Li (Emeritus), Dean S. Toji, John N. Tsuchida (Emeritus), Haiping Wu, Tianwei (Tim) Xie (Emeritus), Teri Yamada

Advisors:
Graduate: Teri Yamada and Barbara Kim
Undergraduate: Barbara Kim
Undergraduate: Dean Toji (Asian American Studies)
Undergraduate: Teri Yamada (Asian Studies)
Undergraduate: Ruixi Ai (Chinese Studies)
Undergraduate: Hiroko Kataoka (Japanese)

Associate Faculty:
Kendall Brown (Art History), Chi-Ah Chun (Psychology), Frank Gossette (Geography), Lisa Grobar (Economics), Jack W. Hou (Economics), Margaret Kuo (History), Guotong Li (History), Joyce Pattnaik (Teacher Education), Xiaoping Liang (Linguistics), Karen Quintiliani (Anthropology), George Scott (Anthropology), Michiko Takeuchi (History), Teresa Wright (Political Science), Oliver Wang (Sociology), R. Scott Wilson (Anthropology)

Administrative Support Coordinator: Ann Chau

Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Chinese Studies (CHIN)

Lower Division (11 units):
Complete ALL of the following courses:
AAAS 100 Asian Eats (3)  
Prerequisite: None.
CHIN 201 Intermediate Chinese (4)  
Prerequisite: GE Foundations or competency equivalent for advanced study in Chinese
CHIN 202 Intermediate Chinese (4)  
Prerequisite: GE Foundations or competency equivalent for advanced study in Chinese

Upper Division (9 units):
Complete ALL of the following courses:
CHIN 301 Advanced Chinese (3)  
Prerequisite: CHIN 202 or equivalent, or consent of Instructor.
CHIN 380 Languages and Dialects in China (3)  
Prerequisite: CHIN 102 or Equivalent.
AAAS 492 Senior Research Seminar (3)  
Prerequisites: Upper-division standing.

Upper Division Electives (15 units):
A. Complete 9 units from the following courses:CHIN 302, CHIN 311, CHIN 321, CHIN 370, CHIN 390, CHIN 410, CHIN 421, CHIN 430A, CHIN 430B, CHIN 430C, CHIN 451, CHIN 462, CHIN 485, CHIN 490, CHIN 499; CHIN/HIST 382B.
B. Complete 6 units from the following courses:ANTH 332; AH 468, AH 469; ASAM 319, ASAM 331, ASAM 340, ASAM 345, ASAM 407; A/ST 306, A/ST 307, A/ST 309, A/ST 320, A/ST 336; ASAM/CHLS 335; HIST/WGSS 406; HIST 382A, HIST 388, HIST 412; JAPN 350; JOUR 312; PHIL 306; POSC 362, POSC 455, POSC 485; R/ST 341.

Bachelor of Arts in Chinese Studies (120 units)

Residence Requirement for the Majors
At least four upper division courses required for the major must be completed successfully at CSULB. Students are encouraged, however, to complete up to a year of their language study in approved programs of study abroad.

Requirements
A minimum of 35 units is required. CHIN 101 and 102 are prerequisite to the major and may be satisfied by appropriate high school preparation or by examination.

Lower Division (11 units):
Complete ALL of the following courses:
AAAS 100 Asian Eats (3)  
Prerequisite: None.
CHIN 201 Intermediate Chinese (4)  
Prerequisite: GE Foundations or competency equivalent for advanced study in Chinese
CHIN 202 Intermediate Chinese (4)  
Prerequisite: GE Foundations or competency equivalent for advanced study in Chinese

Upper Division (9 units):
Complete ALL of the following courses:
CHIN 301 Advanced Chinese (3)  
Prerequisite: CHIN 202 or equivalent, or consent of Instructor.
CHIN 380 Languages and Dialects in China (3)  
Prerequisite: CHIN 102 or Equivalent.
AAAS 492 Senior Research Seminar (3)  
Prerequisites: Upper-division standing.

Upper Division Electives (15 units):
A. Complete 9 units from the following courses:CHIN 302, CHIN 311, CHIN 321, CHIN 370, CHIN 390, CHIN 410, CHIN 421, CHIN 430A, CHIN 430B, CHIN 430C, CHIN 451, CHIN 462, CHIN 485, CHIN 490, CHIN 499; CHIN/HIST 382B.
B. Complete 6 units from the following courses:ANTH 332; AH 468, AH 469; ASAM 319, ASAM 331, ASAM 340, ASAM 345, ASAM 407; A/ST 306, A/ST 307, A/ST 309, A/ST 320, A/ST 336; ASAM/CHLS 335; HIST/WGSS 406; HIST 382A, HIST 388, HIST 412; JAPN 350; JOUR 312; PHIL 306; POSC 362, POSC 455, POSC 485; R/ST 341.
201. Intermediate Chinese (4)
Prerequisites: GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Continuation of first year Chinese. Further development of syntax, grammar and sentence patterns, reading, writing and conversation.
Students with previous training or native speakers of Chinese may not enroll.

202. Intermediate Chinese (4)
Prerequisites: GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Chinese.
Continuation of first year Chinese. Further development of syntax, grammar and sentence patterns, reading, writing and conversation.
Students with previous training or native speakers of Chinese may not enroll.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

301. Advanced Chinese (3)
Prerequisites: CHIN 202 or its equivalent, or consent of the instructor.
Study of modern spoken and written Chinese involving advanced expressions. Emphasis on reading, comprehension, vocabulary building and idiomatic usage.

302. Advanced Chinese (3)
Prerequisites: CHIN 301 or its equivalent, or consent of the instructor.
Study of modern spoken and written Chinese involving advanced expressions. Emphasis on reading, comprehension, vocabulary building and idiomatic usage.

311. Advanced Spoken Chinese (3)
Prerequisite: Consent of instructor.
Advanced study in modern spoken Chinese and Chinese communication. Designed to enhance advanced speaking ability in Mandarin on a range of topics.
Letter grade only (A-F).

321. Chinese Calligraphy (3)
Prerequisites: Consent of instructor. Completion of first-year Chinese or Japanese language or equivalent preferred.
Focuses on the history, development, artistry, and appreciation of Chinese calligraphy. Equal emphasis placed on hands-on practice in and outside of the classroom.

360. Classical Chinese (3)
Prerequisites: CHIN 202 or equivalent Chinese reading proficiency or bilingual students.
Study of the basic vocabulary, grammatical structure, and style of classical Chinese. Introduction to various genres of classical literature: prose, poetry and other literary forms.

370. Chinese Literature in English Translation (3)
Prerequisite: GE Foundation requirements.
Readings in translation of representative works of the major literary genres in China covering both the classical and the modern periods. Previous knowledge of the language is highly desirable, but not necessary.

380. Languages and Dialects in China (3)
Prerequisites: CHIN 102 or equivalent.
Chinese language viewed in its linguistic context, synchronically and diachronically. Introduction to descriptive grammar of modern standard Chinese, classical Chinese, the rise of written vernacular, dialect variations and sociolinguistic issues.

380B. Modern China (3)
Prerequisite: GE Foundation requirements. Chinese society from the 17th century to 1949.
Not open for credit to students with credit in HIST 482B.

390. Topics in Chinese Cultural Studies (3)
Prerequisites: Upper-division standing or consent of instructor.
Interdisciplinary study of representative features of contemporary Chinese culture and society.
May be repeated to a maximum of 6 units with different topics.

410./510. Chinese Information Processing (3)
Prerequisite: Consent of instructor.
Introduction to the fundamentals of Chinese web design, including word-processing, HTML, layout, and user interaction.
May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; graduates register in CHIN 510.

421. Current Affairs in China (3)
Prerequisite: Consent of instructor.
Enhances students' proficiency in Chinese through reading newspapers. Students will familiarize themselves with all aspects of Chinese culture and contemporary society, as well as the language use. A hybrid course. Letter grade only (A-F).

430A./530A. Classical Chinese Fiction (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese fiction, ranging from major works of fiction from the Six Dynasties (317-588) through the Qing Dynasty (1644-1911).
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

430B./530B. Classical Chinese Drama (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from major works of Northern Drama (Zaju) and Southern Drama (Nanxi) to Peking Opera (Jingxi).
Undergraduates register in CHIN 430B; graduates register in CHIN 530B. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

430C./530C. Classical Chinese Poetry (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese poetry, ranging from major poetic works from antiquity to Qin Dynasty (1644-1911). Textual analysis and literary interpretational are emphasized.
Undergraduates register in CHIN 430A; graduates register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

451./551. Chinese Culture and Tradition (3)
Prerequisite: Consent of Instructor.
Thematic survey of various aspects of Chinese culture and tradition from its beginning to the present, with focus on both China's history and the salient cultural elements that make it a great and distinctive country.
Undergraduates register in CHIN 451; graduates register in CHIN 551.
462./562. Contrastive Analysis of Chinese and English (3)
Prerequisite: Consent of instructor.

485./585. Masterpieces from China (3)
Prerequisites: Consent of instructor.
Reading of major works from China in Chinese. Selected writings represent different periods of Chinese history, thoughts, literary tradition. Course conducted in Chinese. May be repeated to a maximum of 6 units. Undergraduates register in CHIN 485; Graduate register in CHIN 585.

490./590. Selected Topics in Chinese Studies (3)
Prerequisite: Consent of instructor.
Variable topics related to advanced Chinese Studies, depending on the instructor's discipline and expertise. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. Undergraduates register in CHIN 490; Graduate register in CHIN 590.

562./462. Contrastive Analysis of Chinese and English (3)
Prerequisite: Consent of instructor.

561. The Structure of Modern Chinese Language (3)
Prerequisite: Consent of instructor.
The Chinese language viewed in its linguistic context, synchronically and diachronically. Introduction to descriptive grammar of modern standard Chinese, the rise of written vernacular, dialect variations and sociolinguistic issues. Letter grade only (A-F).

510./410. Chinese Information Processing (3)
Prerequisite: Consent of instructor.
Introduction to the fundamentals of Chinese web design, including word-processing, HTML, layout, and user interaction. May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; Graduate register in CHIN 510.

530A./430A. Classical Chinese Fiction (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese fiction, ranging from major works of fiction from the Six Dynasties (317-588) through the Qing Dynasty (1644-1911). Undergraduates register in CHIN 430A; graduate register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

530B./430B. Classical Chinese Drama (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from major works of Northern Drama (Zaju) and Southern Drama (Nanxi) to Peking Opera (Jingxi). Undergraduates register in CHIN 430B; graduate register in CHIN 530B. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

530C./430C. Classical Chinese Poetry (3)
Prerequisite: Upper-division standing or consent of instructor.
Study and examination of traditional Chinese poetry, ranging from major poetic works form antiquit to Qin Dynasty (1644-1911). Textual analysis and literary interpretational are emphasize. Undergraduates register in CHIN 430A; Graduate register in CHIN 530A. May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F).

551./451. Chinese Culture and Tradition (3)
Prerequisite: Consent of Instructor.
Thematic survey of various aspects of Chinese culture and tradition from its beginning to the present, with focus on both China's history and the salient cultural elements that make it a great and distinctive country. Undergraduates register in CHIN 451; Graduates register in CHIN 551.

581. Principles and Practice of Teaching Chinese (3)
Prerequisite: Consent of instructor.
Designed for students planning to become Chinese language teachers, Single Subject Credential program students or graduate students in Asian Studies or Linguistics. Prepares the student to be a Chinese teacher at all levels. Lectures, discussions, class observation and teaching preparation. Letter grade only (A-F).

585./485. Masterpieces from China (3)
Prerequisites: Consent instructor.
Reading of major works from China in Chinese. Selected writings represents different periods of Chinese history, thoughts, and literary tradition. Course conducted in Chinese. May be repeated to a maximum of 6 units. Undergraduates register in CHIN 485; Graduate register in CHIN 585.

590./490. Selected Topics in Chinese Studies (3)
Prerequisite: Consent of instructor.
Variable topics related to advanced Chinese Studies, depending on the instructor's discipline and expertise. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. Undergraduates register in CHIN 490; Graduate register in CHIN 590.

599./499. Directed Studies in Chinese (1-3)
Prerequisites: Consent of instructor.
Independent study under supervision of a faculty member. May be repeated to a maximum of 6 units with different topics in different semesters.
CIVIL ENGINEERING AND CONSTRUCTION
ENGINEERING MANAGEMENT
College of Engineering

Department Chair: Richard P. Nguyen
Department Office: Vivian Engineering Center (VEC) – 104
Telephone: (562) 985-5118
Website: www.csulb.edu/colleges/coe/cecem/


Undergraduate Advisors:
Paul Ko (CE), Tang-Hung Nguyen (CEM)
Emelinda M. Parentela (CE)

Graduate Advisor: Tesfai Goitom

General Education Advising: Academic Advising - Horn Center

Administrative Support Coordinator: Ameeta Perera

Students desiring detailed information about Civil Engineering or Construction Management programs should contact the department office for referral to one of the faculty advisors.

Career Possibilities
Civil Engineer • Traffic Engineer • Sanitary Engineer
• Structural Engineer • Hydraulic Engineer • Highway Administration Engineer • Harbor Engineer • Airport Engineer • Environmental Engineer • Transportation Engineer • Drainage Design Coordinator • Technical Sales and Consulting • Field Engineer • Facilities Engineer
• Plant Engineer • Project Engineer • Safety Engineer
• Sales Representative • Estimator • Construction Coordinator • Procurement Construction Coordinator • Construction Inspector • Cost Analysis Coordinator • Contract Coordinator • Consultant (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Advisory and Development Councils

The Civil Engineering Advisory and Development Council

This council consists of outstanding engineers and executives from industry and government in Southern California. Its function is to form a liaison between the University and industry and to keep the administration and faculty informed of modern engineering practices. This ensures that the curricula are kept up-to-date. It also advises on placement opportunities before and after graduation.

Construction Management Advisory and Development Council

This council provides current information and guidance about industrial developments in methods, materials and techniques. Members make recommendations in course content, methods and/or facilities. Present membership in the council is made up of representatives from the different sectors of the construction industry.

ABET Accreditation
The Bachelor of Science in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

ACCE Accreditation
The Bachelor of Science in Construction Management is accredited by the American Council for Construction Education (ACCE), website: http://www.acce-hq.org/.

Undergraduate Programs

Bachelor of Science in Civil Engineering (120 units)

Mission
The mission of the Civil Engineering Program is to prepare students to succeed in the civil engineering profession by providing them with essential technical tools and skills and to promote the need for lifelong learning.

Educational Objectives
The Civil Engineering Program Educational Objectives are to produce graduates, who after entering the civil engineering practice will:
1. Apply knowledge of fundamental science and engineering principles and design to the solution of complex engineering projects.
2. Pursue lifelong learning through continuing education and/or advanced degrees in civil engineering or other related fields.
3. Progress to professional registration and continue to develop professionally.
4. Progress to leadership or management in engineering.

Major Declaration
Freshmen admission to engineering majors is to a ‘pre-major’ status (i.e., Pre-Civil Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student’s ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Civil Engineering must also meet similar major specific requirements. To become fully admitted into the Civil Engineering major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower Division Major Requirements:
MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics and Heat)

General Education Foundations Courses:
Written and Oral Communication
Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or complete. Performance in the courses merits an additional semester to meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year. Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

Lower Division:

Take all of the following:

- CHEM 111A General Chemistry (5)
  Prerequisite: A passing score on the Chemistry Placement Examination.
  Co-requisite: MATH 109 or higher.
- CE 101 Introduction to Civil Engineering and Construction Engineering Management (1)
  Prerequisite: None.
- CE 130 Surveying and Mapping (1)
  Corequisites: CE 130L and MAE 172 or CEM 121.
- CE 130L Surveying and Mapping Laboratory (1)
  Corequisite: CE 130.
- CE 200 Materials for Civil Engineering (1)
  Prerequisites: CHEM 111A and PHYS 151 all with a grade of "C" or better; consent of department undergraduate advisor.
  Corequisite: CE 200.
- CE 200L Materials for Civil Engineering Lab (1)
  Prerequisites: CHEM 111A and PHYS 151 all with a grade of "C" or better and consent of department undergraduate advisor.
  Co-requisite: CE 200.
- CE 205 Analytical Mechanics I (Statics) (3)
  Prerequisite: PHYS 151 with a grade of "C" or better.
  Prerequisite/Corequisite: MATH 123.
- CE 206 Computer Programming and CE Applications I (1)
  Prerequisites: MATH 122, PHYS 151 all with a grade of "C" or better.
  Corequisite: CE 206L.
- CE 206L Computer Programming and CE Applications I Lab (1)
  Prerequisites: MATH 122, PHYS 151
  Corequisite: CE 206.
- ENGR 101 Intro to the Engineering Profession (1)
  Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
- ENGR 102 Academic Success Skills (1)
  Prerequisite: ENGR 101 with a grade of "C" or better.
- MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
- MATH 123 Calculus II (4)
  Prerequisite: A grade of "C" or better in MATH 122.
- MATH 224 Calculus III (4)
  Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.
- MAE 172 Engineering Design Graphics (2)

Prerequisites: None.
- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

Take one of the following:

- BIOL 200 General Biology (4)
  Prerequisite: GE Foundation requirements.
- BIOL 201 Microbiology for Health Professionals (4)
  Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.

Take 4 units of the following:

- EE 210 Electro-Magnetic Foundations in EE (3)
  Prerequisite: PHYS 151 with a grade of "C" or better.
  Corequisites: MATH 123, EE 210L.
- EE 210L Electro-Magnetic Foundations in EE Lab (1)
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:

Take all of the following:

- CE 307 Probability & Statistics in Civil Engineering (2)
  Prerequisites: CE 206
- CE 325 Transportation Safety and Sustainability (3)
  Prerequisites: GE Foundation requirements.
- CE 335 Fluid Mechanics (3)
  Prerequisites: MATH 224 and CE 205 all with a grade of "C" or better.
  Corequisites: MATH 373; GEOL 370.
- CE 345 Geotechnical Engineering I (3)
  Prerequisite: Consent of Department Undergraduate Advisor.
  Corequisites: MAE 373; GEOL 370.
- CE 346 Geotechnical Engineering Laboratory (1)
  Prerequisite: ENGL 100 or GE Composition (Area A1) with a grade of "C" or better.
  Corequisite: CE 345.
- CE 359 Structural Analysis I (3)
  Prerequisite: MAE 373 with a grade of "C" or better.
- CE 364 Environmental Engineering (3)
  Prerequisites: CHEM 111A, BIOL 200/BIOL 201 or MICR 200 all with a grade of "C" or better.
  Prerequisite/Corequisite: CE 335.
- CE 406 Project Cost-Benefit Analysis (3)
  Prerequisite: GE Foundation requirements.
- CE 426 Transportation Engineering (3)
  Prerequisite: CE 345 with a grade of "C" or better.
  Corequisite: CE 406.
- CE 437 Engineering Hydraulics (3)
  Prerequisites: C E 335, MATH 370A all with a grade of "C" or better.
- CE 459 Reinforced Concrete Design I (3)
  Prerequisites: C E 200 and 359 all with a grade of "C" or better.
- CE 481 Professional Practice in Civil Engineering (1)
  Prerequisite: Senior standing.
- CE 490 Senior Design Project (3)
  Prerequisites: CE 459; completion of all 300-level engineering courses for the civil engineering major all with a grade of "C" or better and consent of department undergraduate advisor.
  Prerequisites/Corequisites: CE 426, CE 437.
- GEOL 370 Geology for Engineers (2)
  Prerequisites: CE 200.
- MATH 370A Applied Mathematics I (3)
  Prerequisites: A grade of "C" or better in MATH 123. Not open to Freshmen.
MAE 330 Engineering Thermodynamics I (3)
Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A all with a grade of "C" or better or consent of instructor.

MAE 371 Analytical Mechanics II (Dynamics) (3)
Prerequisites: CE 205, MAE 205, or CE 206 and 206L all with a grade of "C" or better.

MAE 373 Mechanics of Deformable Bodies (3)
Prerequisite: CE 205 with a grade of "C" or better.

Take six units of electives courses from:

Take two laboratories from:
CE 326, CE 336, CE 365, CE 454, MAE 374

A grade of "C" or better must be achieved in the required courses below:
CHEM 111A, MATH 122, MATH 123, MATH 224, MATH 370A, BIOL 200, BIOL 201, PHYS 151, MAE 172, MAE 373, CE 130, CE 130L, CE 200, CE 205, CE 206, CE 325, CE 335, CE 345, CE 359, CE 406, CE 459 and CE 490.

Bachelor of Science in Construction Management (120 units)

Mission
The Mission of the Construction Management program is to educate and prepare students to succeed in the construction management profession by providing them with essential technical, managerial and communication skills and tools which will enable them to perform current and future construction management tasks and to promote the need for life-long learning.

Educational Objectives
The Construction Management program educational objectives are to produce graduates, who after entering the construction management practice with a knowledge of fundamental construction management principles and current technologies, communication skills and practical construction experience, will:
1. Provide substantial contributions to the construction industry.
2. Pursue life-long learning through continuing education and/or advanced degrees in construction management or other related fields.
3. Continue to develop professionally through participation in professional organizations and/or participation in professional development activities in the industry.
4. Progress towards professional certifications.

Major Declaration
Freshmen admission to engineering majors is to a "pre-major" status (i.e., Pre-Construction Management). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student’s ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Construction Management must also meet similar major specific requirements. To become fully admitted into the Construction Management major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower-Division Major Requirements:
MATH 122 (Calculus I), PHYS 100A (General Physics)

General Education Foundations Courses:
Written and Oral Communication

Degree Progress
Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 111 and MATH 113, and PHYS 100A within one calendar year.
Transfer Students: A grade "C" or better must be achieved in MATH 122 and PHYS 100A & B within one calendar year.

Requirements

Lower Division:
Take all of the following:
CE 101 Introduction to Civil Engineering and Construction Engineering Management (1)
Prerequisites: None.
CE 130L Surveying and Mapping Laboratory (1)
Corequisites: CE 130L and MAE 172 or CEM 121.
CE 130 Surveying and Mapping (1)
Corequisite: CE 130.
ENGR 101 Intro to the Engineering Profession (1)
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
ENGR 102 Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
PHYS 100A General Physics (4)
Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 120 or MATH 122.
PHYS 100B General Physics (4)
Prerequisite: PHYS 100A.
CEM 121 Construction Drawing I (2)
Prerequisites: None.
CEM 125 Fundamentals of Construction (3)
Prerequisites: None.
CEM 200 Concrete Construction (1)
Prerequisite: CEM 125 with a grade of "C" or better.
Corequisite: CEM 200L.
CEM 200L Concrete Construction Laboratory (1)
Corequisite: CEM 200.
CEM 202 Probability and Statistics for CEM (2)
Prerequisite: High School Algebra.
CEM 204 Applied Mechanics-Statics (3)
Prerequisites: MATH 122 and PHYS 100A all with a grade of "C" or better.
CEM 225 Residential and Light Commercial Construction Practices and Estimating (3)
Prerequisites: CEM 121, CEM 125 all with a grade of "C" or better. Corequisites: CEM 200, CEM 200L.

Take one of the following:
BLAW 220 Introduction of Law and Business (3)
Prerequisites: None
BLAW 320 Legal and Regulatory Environment of Business (3)
Prerequisites: None

Take one of the following:
CEM 201 Cost Accounting for Construction Engineering (3)
Prerequisites: None
ACCT 201 Elementary Financial Accounting (3)
Prerequisites: None.

Upper Division:
Take all of the following:
CE 406 Project Cost-Benefit Analysis (3)
Prerequisite: GE Foundation requirements.
CEM 304 Applied Mechanics Strength of Materials (2)
Prerequisite: CEM 204 with a grade of "C" or better.
CEM 315 Construction Safety (2)
Prerequisite: CEM 225 or CE 200 with a grade of "C" or better.
CEM 324 Commercial, Institutional, and Industrial Construction Practices and Estimating (3)
Prerequisites: CEM 315 with a grade of "C" or better.
CEM 335 Soil Mechanics Technology (2)
Prerequisite: CEM 304 with a grade of "C" or better. Corequisite: CEM 335L.
CEM 335L Soil Mechanics Technology Laboratory (1)
Prerequisite: CEM 304 with a grade of "C" or better. Corequisite: CEM 324.
CEM 365 Mechanical Equipment for Buildings (2)
Prerequisite: PHYS 100B with a grade of "C" or better. Corequisite: CEM 324.
CEM 375 Electrical Equipment Buildings (2)
Prerequisites: CEM 324, PHYS 100B all with a grade of "C" or better.
CEM 404 Structural Design I (2)
Prerequisite: CEM 304 with a grade of "C" or better.
CEM 421 Construction Planning and Scheduling (3)
Prerequisite: CEM 324 with a grade of "C" or better.
CEM 425 Earthwork and Civil Works Construction Practices (2)
Prerequisite: CEM 324, CE 406 with a grade of "C" or better.
CEM 426 Business and Construction Law (3)
Prerequisites: CEM 324; BLAW 220 with a grade of "C" or better.
CEM 429 Advanced Estimating and Bidding (3)
Prerequisite: CEM 315 with a grade of "C" or better. Corequisite: CEM 425.
CEM 431 Construction Cost Control (3)
Prerequisites: CE 406 and CEM 421 with a grade of "C" or better.
CEM 438 Structural Design II (2)
Prerequisite: CEM 304 with a grade of "C" or better.
CEM 490 Construction Project Management (3)
Prerequisites: CEM 426, CEM 429 and CEM 431 with a grade of "C" or better.
ECON 300 Fundamentals of Economics (3)
Prerequisites: GE Foundation requirements.
MGMT 300 Principles of Management & Operations (3)
Recommended: IS 310.
CBA 300 International Business (3)
Prerequisites: None

Take one of the following:
MGMT 413 Managing Quality for Productivity (3)
Prerequisites: MGMT 300, IS 301.
Recommended: IS 310.
HRM 361 The Human Resource Function (3)
Prerequisites: None.

Upper Division Electives:
Take six units of electives in consultation with an advisor:
1. Design-build Emphasis: CEM 373, CEM 409, CEM 443, CEM 485
2. Facility Management Emphasis: CEM 409, CEM 432, CEM 433, CEM 434, CEM 436, CEM 485
A grade of "C" or better must be achieved in all required courses listed below:
PHYS 100A and B, MATH 122, CEM 121, CEM 125, CEM 200, CEM 200L, CEM 204, CEM 304, CEM 315, CEM 324, CEM 421, CEM 429, CEM 431, CEM 490; CE 130, CE 130L, CE 406, MGMT 300; ACCT 201; BLAW 220 or BLAW 320.

Fieldwork Requirements
Fieldwork experience is required for the BS in Construction Management, consisting of no less than three months full-time (or equivalent part-time) of employment in an approved industry or governmental agency. The student must hold a position equivalent to a technician or higher which affords the opportunity to exercise responsibility usually given to those who have completed two years of college. The fieldwork must be completed prior to graduation, be certified and approved by the faculty of the department.

GRADUATE PROGRAMS

Master of Science in Civil Engineering
Mission
The mission of the civil engineering graduate program at CSULB is to provide a high-quality educational experience and the technical specialization required to become successful leaders in industry and the society, to engage students in innovative practical research and encourage them to pursue advanced degrees and lifelong learning.

Program Objectives
Graduates of the MSCE program will:
1. have technical competency in an area of specialization.
2. have technical knowledge and skills needed to conduct independent and/or innovative research.
3. keep current with state of the art technologies and advancements in a specialized technical area.
Prerequisites
1. A bachelor’s degree in an ABET accredited curriculum in civil engineering or a closely related engineering degree with a minimum GPA of 2.8, with the requirement that essential undergraduate prerequisites in civil engineering are satisfied;
2. The general Graduate Record Examination (GRE) is required and appropriate level of competency will be determined by the Department.
3. Graduate students must consult with the graduate advisor for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.

The Graduation Writing Assessment Requirement (GWAR) must be met during the first semester in residence. Failure to attempt to fulfill the GWAR during the first semester will prevent registration in engineering courses in subsequent semesters.

Advancement to Candidacy
1. Removal of all undergraduate deficiencies as determined by the Department Graduate Studies Committee;
2. Completion of at least 12 graduate units at CSULB; minimum GPA of 3.0; currently enrolled;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

Requirements
1. Completion of 30 units of graduate coursework as follows:
   a. Twelve units of courses in one of the following areas of specialization: construction management, structural engineering, environmental/water resources engineering and geotechnical/transportation engineering;
   b. Six units of department approved courses with mathematical content;
   c. Twelve units of elective courses from the following options:
      Thesis Option: Complete CE 698 and two elective courses from the approved graduate courses in Civil Engineering.
      Comprehensive Exam Option: Complete CE 697 and three elective courses from the approved graduate courses in Civil Engineering, and successfully complete the Comprehensive Exam on coursework in the student's program.

Civil Engineering Courses (C E)

LOWER DIVISION

101. Introduction to Civil Engineering and Construction Engineering Management (1)
Civil engineering and construction management as a profession. Current trends and challenges, ethical, social and environmental issues in professional practice. Professional organizations and licensure. Communication and lifelong learning skills for professional practice.
Letter grade only (A-F). (Lecture-problems 1 hour)

130. Surveying and Mapping (1)
Corequisites: CE 130L and MAE 172 or CEM 121.
Letter grade only (A-F). (Lecture-Problems 1 hour)

130L. Surveying and Mapping Laboratory (1)
Corequisite: CE 130.
Fundamentals of surveying methods as applied to construction layout. Use of level and total station for location and control of structures, vertical and horizontal control, and area determination.
Letter grade only (A-F). Not open for credit to students with credit in CE 131. (Laboratory 3 hours)

200. Materials for Civil Engineering (1)
Prerequisites: CHEM 111A and PHYS 151 all with a grade of "C" or better and consent of department undergraduate advisor.
Corequisite: CE 200L
Basic properties of materials in civil engineering, including concrete, masonry, steel, wood, asphalt and composites.
Letter grade only (A-F). (Lecture 1 hour)

200L. Materials for Civil Engineering Laboratory (1)
Prerequisites: CHEM 111A and PHYS 151 all with a grade of "C" or better and consent of department undergraduate advisor.
Co-requisite: CE 200.
Laboratory testing of basic properties of materials in civil engineering, including concrete, masonry, steel, wood, asphalt and composites.
Letter grade only (A-F). (Laboratory 3 hours)

205. Analytical Mechanics I (Statics) (3)
Prerequisite/Corequisite: PHYS 151 with a grade of "C" or better.
Application of the mechanics of equilibrium to force systems using analytical and graphical solutions of problems involving structures and machines.
Letter grade only (A-F). (Laboratory 3 hours)

205H. Analytical Mechanics I (Statics) (3)
Prerequisite/Corequisite: MATH 123.
Application of the mechanics of equilibrium to force systems using analytical and graphical solutions of problems involving structures and machines.
Letter grade only (A-F). (Laboratory 3 hours)

206. Computer Programming and Civil Engineering Applications I (1)
Prerequisites: MATH 122, PHYS 151 all with a grade of "C" or better.
Corequisite: CE 206L
Introduction to programming and application of computers to elementary civil engineering problems.
Letter grade only (A-F). (Laboratory-Problems 1 hour)
206L. Computer Programming and Civil Engineering Applications Laboratory (1)
Prerequisites: MATH 122, PHYS 151 all with a grade of "C" or better.
Corequisite: CE 206
Hands-on application of computers and programming to elementary civil engineering problems.
Letter grade only (A-F). (Laboratory 3 hours)

UPPER DIVISION

307. Probability and Statistics in Civil Engineering (2)
Prerequisites: CE 206
Analysis of uncertainties, and applications of the basic theories of probability and statistics in civil engineering areas of geotechnical, environmental, water resources, structural and transportation engineering.
Letter grade only (A-F). (Lecture-problems 1 hour, Lab 3 hrs)

325. Transportation Safety and Sustainability (3)
Prerequisites: Completion of GE Foundation Requirements
Introduction to transportation systems and various modes of transportation: land, air, and water; legislations affecting transportation practices; transportation safety; impacts of transportation on the environment; sustainable transportation: transit, bicycles, and pedestrians. (Lecture-Problems 3 hours)
Letter grade only (A-F).

335. Fluid Mechanics (3)
Prerequisites: MATH 224 and C E 205 all with a grade of "C" or better.
Properties of fluids, fluid statics, fluid dynamics, dynamic similitude, flow of compressible and incompressible fluids in closed conduits.
Letter grade only (A-F). (Lecture-Problems 3 hours). Same course as CE 335H. Not open for credit to students with credit in CE 335H.

335H. Fluid Mechanics (3)
Prerequisites: MATH 224 and C E 205 all with a grade of "C" or better.
Properties of fluids, fluid statics, fluid dynamics, dynamic similitude, flow of compressible and incompressible fluids in closed conduits.
Letter grade only (A-F). CE 335H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CE 335H.

336. GIS Laboratory for Civil Engineers (1)
Prerequisites: CE 130, CE 130L, CE 206 all with a grade of "C" or better.
Fundamentals of geographic information systems (GIS); spatial and network analyses. Hands-on application of GIS software to solve civil engineering problems.
(Laboratory 3 hours) Letter grade only (A-F).

359. Structural Analysis I (3)
Prerequisite: MAE 373 with a grade of "C" or better.
Analysis of structures including trusses, beams, and frames, conjugate beam, virtual work, energy methods, approximate methods, and influence lines. Use of code based finite element computer programs in analysis of frame and truss type structures.
Letter grade only (A-F). (Lecture-Problems 3 hours). Same course as CE 359H. Not open for credit to students with credit in CE 359H.

364. Environmental Engineering I: Fundamentals (3)
Prerequisites: CHEM 111A, BIOL 201/BiOL 201 or MICR 200 all with a grade of "C" or better.
Introduction to the fundamental physical, chemical and biological processes affecting air and water quality. Models of transport and transformation of impurities. Emphasis on theory underlying the design of water quality control technologies.
Letter grade only (A-F). (Lecture-Problems 3 hours). Same course as CE 364H. Not open for credit to students with credit in CE 364H.

364H. Environmental Engineering I: Fundamentals (3)
Prerequisites: CHEM 111A, BIOL 200/MICR 200 all with a grade of "C" or better.
Introduction to the fundamental physical, chemical and biological processes affecting air and water quality. Models of transport and transformation of impurities. Emphasis on theory underlying the design of water quality control technologies.
Letter grade only (A-F). CE 364H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CE 364H. (Lecture-problems 3 hours)
365. Environmental Engineering Laboratory (1)
Prerequisite/Corequisite: CE 364.
Experiments in routine water quality analysis and environmental engineering applications.
Letter grade only (A-F). (Laboratory 3 hours)

370. Analytical Mechanics (3)
Prerequisites: PHYS 151 with a grade of "C" or better.
Prerequisite/Corequisite: MATH 123.
Fundamental principles of statics, kinematics and kinetics, with application to idealized structures and systems.
Intended for Electrical Engineering majors. Not open for credit to Civil or Mechanical Engineering majors. Letter grade only (A-F). (Lecture-Problems 3 hours)

404. Laboratory Techniques (1)
Prerequisites: ENGL 100 or GE Composition (Area A1) with a grade of "C" or better., senior standing in Civil Engineering and consent of instructor.
Study in the techniques of organizing and directing of the civil engineering laboratory.
May be repeated to maximum of 3 units. Letter grade only (A-F). (Conference 1 hour, Laboratory 3 hours)

405. Selected Topics in Civil Engineering (3)
Prerequisites: Senior standing in civil engineering and consent of instructor.
Selected topics from recent advances in civil engineering. Course content will vary from year to year.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in Schedule of Classes. (Lecture-Problems 3 hours)

406. Project Cost-Benefit Analysis (3)
Prerequisite: GE Foundation requirements.
Systematic evaluation of the economic and social benefits and costs of projects. Decision-making in an environment of limited resources, environmental and economic constraints, and uncertainty. The economy of multi-year projects, selection among competing independent alternatives, before and after tax analyses, replacement economy and inflation.
Letter grade only (A-F). (Lecture-Discussion 3 hours). Same course as CE 406H. Not open for credit to students with credit in CE 406H.

406H. Project Cost-Benefit Analysis (3)
Prerequisite: GE Foundation requirements.
Systematic evaluation of the economic and social benefits and costs of projects. Decision-making in an environment of limited resources, environmental and economic constraints, and uncertainty. The economy of multi-year projects, selection among competing independent alternatives, before and after tax analyses, replacement economy and inflation.
Letter grade only (A-F). CE 406H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CE 406. (Lecture-Discussion 3 hours)

408. Special Problems (1-3)
Prerequisite: Senior standing in civil engineering.
Assigned topics in technical literature or laboratory projects and report on same.
Letter grade only (A-F).

426. Transportation Engineering (3)
Prerequisite: CE 345 with a grade of "C" or better.
Corequisite: CE 406.
Integrative learning course on transportation engineering. Characteristics of drivers, vehicles, and road; traffic flow; intersection design and control, planning, and geometric design; safety issues. Team project, oral presentations, and written reports required.
Letter grade only (A-F). (Lecture-Discussion 3 hours). Same course as CE 426H. Not open for credit to students with credit in CE 426H.

426H. Transportation Engineering (3)
Prerequisite: CE 345 with a grade of "C" or better.
Corequisite: CE 406.
Integrative learning course on transportation engineering. Characteristics of driver, pedestrian, vehicle, and road; traffic flow; intersection design and control, planning, and geometric design; safety issues. Team project, oral presentations, and written reports required.
Letter grade only (A-F). CE 426H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CE 426. (Lecture-Discussion 3 hours)

427. Highway Design (2)
Prerequisite: CE 345 with a grade of "C" or better.
Coreerequisite: CE 427L
Geometric design of highways and streets. Route location and earthwork computation. Introduction to roadside and pavement design. Design problems in highway engineering.
Letter grade only (A-F). (Lecture-Problems 3 hours)

427L. Highway Design Laboratory (1)
Co-requisite: CE 427.
Geometric highway design project, horizontal alignment, vertical alignment, cross section, earthwork calculation, environmental impact, use of software application.
Letter grade only (A-F). (Laboratory 3 hours)

428. Highway Engineering Materials (2)
Prerequisites: CE 200 and CE 345 all with a grade of "C" or better.
Corequisite: CE 428L
Design and properties of highway materials, including aggregates, asphalt binder, and mixtures. Hot Mix Asphalt (HMA) gradation, blending procedure, volumetrics, design, plant operation, and lay down. Superpave binder testing and specifications.
(Lecture 2 hours) Letter grade only (A-F).

428L. Highway Engineering Materials Laboratory (1)
Co-requisite: CE 428.
Laboratory testing for aggregate, asphalt binder, and asphalt concrete mixture.
Letter grade only (A-F). (Laboratory 3 hours)

429. Traffic Engineering (2)
Corequisite: CE 426, CE 429L
Capacity and level of service analyses of highway facilities. Intersection signal timing design. Introduction to traffic control devices. Volume, speed and delay studies. Use of traffic data for design, planning and operational levels of analyses.
Letter grade only (A-F). Graduate students required to do extra projects. (Lecture-Problems 3 hours)

429L. Traffic Engineering Laboratory (1)
Corequisites: CE 426, CE 429
Laboratory activities on traffic flow theory, capacity and level of service analyses, signal timing, parking lot design, and travel demand forecasting; traffic volume, speed and delay studies. Use of traffic engineering software.
(Laboratory 3 hours) Letter grade only (A-F). Not open for credit to student with credit in CE 430.
435. Hydrology and Water Resources Engineering (3)
Prerequisite: CE 335 with a grade of "C" or better.
Fundamental surface and ground water hydrology concepts and quantitative methods. Selected topics and procedures of the hydrological cycle. Planning, development and management of water resource surface systems.
Letter grade only (A-F). (Lecture-Problems 3 hours)

437. Engineering Hydraulics (3)
Prerequisite: CE 335, MATH 370A all with a grade of "C" or better.
Analysis of steady flow in pipe and pipeline networks, and centrifugal pump systems. Theory and analysis of uniform and non-uniform flow in open conduits. Design of lined and unlined channels, computations of critical, gradually, and rapidly varied flows.
Letter grade only (A-F). (Lecture-Problems 3 hours)

438. Hydraulic Engineering Design I (2)
Corequisites: CE 437, CE 438L
Application of hydraulic principles to the design of dams, water courses, water systems and their related structures and devices.
Letter grade only (A-F). (Lecture 2 hours)

438L. Hydraulic Design I Laboratory (1)
Corequisite: CE 437 and CE 438
Computer laboratory applications to the design of water courses, water systems and their related structures and devices.
Letter grade only (A-F). (Laboratory 3 hours)

439. Fundamentals of Groundwater Flow and Contaminant Transport (3)
Corequisite: CE 437
(Lecture-Discussion 3 hours) Letter grade only (A-F).

445. Geotechnical Engineering II (3)
Prerequisites: CE 345, CE 346 all with a grade of "C" or better.
Methods of design and construction of various geotechnical engineering projects utilizing theory of soil mechanics.
Letter grade only (A-F). (Lecture-Problems 3 hours)

446. Geotechnical Projects (3)
Prerequisite: CE 345 with a grade of "C" or better.
Design and problem solving oriented geotechnical projects utilizing soil mechanics theory and experimental methods according to the state-of-the-art practice.
Letter grade only (A-F). Graduate students required to do additional readings and write a research term paper to deal with current topics in geotechnical engineering. (Lecture-Problems 3 hours)

454. Structures Laboratory (1)
Prerequisite: CE 359 with a grade of "C" or better.
Corequisite: CE 459.
Laboratory examination of structural concepts. Utilize computer simulation modeling techniques in combination with structural tests.
Letter grade only (A-F). (Lecture 3 hours) Not open for credit to students with credit in CE 491.

455. Structural Steel Design (3)
Prerequisite: CE 359 with a grade of "C" or better.
Detailed design of components with typical codes and specifications.
Letter grade only (A-F). (Lecture-Problems 3 hours)

456. Timber Design (3)
Prerequisite: CE 359 with a grade of "C" or better.
Design of various structural elements made of wood material subjected to both vertical and lateral loads. Application of current building codes and specifications in timber design.
Letter grade only (A-F). (Lecture-Problems 3 hours)

458. Structural Analysis II (3)
Prerequisite: CE 359 with a grade of "C" or better.
Solution of indeterminate truss and frame structures using moment distribution and slope deflection methods. Introduction to matrix methods. Energy theorems and virtual work principles. Use of code based finite element computer programs in the analysis of indeterminate structural systems.
Letter grade only (A-F). (Lecture-Problems 3 hours)

459. Reinforced Concrete Design I (3)
Prerequisite: CE 200 and CE 359 all with a grade of "C" or better.
Theory and design of structural elements of reinforced concrete, analysis by working stress and ultimate strength design theories.
Letter grade only (A-F). (Lecture-Problems 3 hours)

464. Environmental Engineering II: Unit Processes (3)
Prerequisites: CE 335 and CE 364 all with a grade of "C" or better.
Civil engineering applications of the fundamentals of chemical reactions, kinetics of biochemical systems, gas transfer systems, liquid/solid separations, solubility equilibria, adsorption, ion exchange and membrane processes.
Letter grade only (A-F). (Lecture-Problems 3 hours)

466. Environmental Systems Design (3)
Prerequisite: CE 335 and CE 364 with a grade of "C" or better.
Civil engineering applications of the fundamentals of chemical reactions, kinetics of biochemical systems, gas transfer systems, liquid/solid separations, solubility equilibria, adsorption, ion exchange and membrane processes.
Letter grade only (A-F). (Lecture-Problems 3 hours)

490. Senior Design Project (3)
Prerequisite(s): CE 459; completion of all 300-level engineering courses for the civil engineering major all with a grade of "C" or better and consent of department undergraduate advisor.
Prerequisite(s)/Corequisite(s): CE 426, CE 437.
Capstone design that fulfills integrative capstone design course. A supervised design team project, incorporating all aspects from concept to completed design. Technical aspects, social, environmental, and economic issues considered. Ethical concepts discussed. Oral presentations and written reports are required.
Letter grade only (A-F). (Lecture-Problems 2 hrs, Design lab 3 hrs)

495. Seismic Design I (3)
Prerequisites: CE 459 with a grade of "C" or better.
Elements of lateral-force design in steel, concrete, masonry, and timber structures. Application of current building codes.
Letter grade only (A-F). (Lecture 3 hours)

497. Senior Problem Directed Studies (2)
Prerequisites/Corequisites: CE 406, CE 481, CE 490.
Directed study on assigned topics or lab/field studies practicum and report on same.
Letter grade only (A-F).
GRADUATE LEVEL

500. Engineering Analysis I (3)
Prerequisite: MATH 370A with a grade of "C" or better.
Letter grade only (A-F). (Lecture-Problems 3 hours)

501. Engineering Analysis II (3)
Prerequisite: MATH 370A with a grade of "C" or better.
Analysis of engineering mechanics by matrix theory and complex variables; introduction to numerical techniques.
Letter grade only (A-F). (Lecture-Problems 3 hours)

502. Finite Element Method and Applications (3)
Prerequisite: CE 458 with a grade of "C" or better or consent of instructor
(Lecture-Problems 3 hours) Letter grading only (A-F).

503. Selected Topics in Civil Engineering (3)
Prerequisite: Graduate standing and consent of instructor.
Selected topics, with laboratory work required, from the most recent developments in civil engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
Topics announced in the Schedule of Classes. No more than 6 units of CE 503 or CE 504 may be counted for the Master's Degree.
(Lecture-Problems 2 hours, Laboratory 3 hrs)

504. Selected Topics in Civil Engineering (3)
Prerequisite: Graduate standing or consent of instructor.
Selected topics from recent developments in civil engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
Topics announced in the Schedule of Classes. No more than 6 units of CE 503 and/or CE 504 may be counted for the master's degree.
(Lecture-Problems 3 hrs)

508. Probabilistic and Statistical Methods in Engineering Applications (3)
Prerequisite: Graduate standing or consent of instructor.
Civil Engineering applications of nondeterministic models and decision theory. Applications of proven statistical computer programs.
Letter grade only (A-F). (Lecture-Problems 3 hours)

509. Computational Methods in Civil Engineering (3)
Prerequisite: Graduate standing or consent of instructor.
Numerical analysis and computer methods applied to various areas of civil engineering. Application of proven computer methods, including special problem-oriented languages.
Letter grade only (A-F). (Seminar 3 hrs)

516. Timber Design II (3)
Prerequisite: CE 359 and CE 456 all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-Problems 3 hours)

517. Reinforced Masonry Design (3)
Prerequisite: CE 359 with a grade of "C" or better.
Letter grade only (A-F). Graduate students required to do a design project and assigned readings from journals and research papers.
(Lecture-Problems 3 hours)

520. Seaport Planning and Design (3)
Prerequisite: CE 426 with a grade of "C" or better or consent of instructor.
Planning and design of seaports and facilities as access systems. Support transportation, use analysis and ocean transport crafts. Site selection and comprehensive planning.
Letter grade only (A-F). (Lecture-Problems 3 hours)

522. Transportation Planning (3)
Prerequisite: CE 426 with a grade of "C" or better or consent of instructor.
Planning of transportation facilities in urban setting; application of travel forecasting and analytical models in the planning process; evaluation of transportation alternatives and impacts; transportation system and demand management techniques.
Letter grade only (A-F). (Lecture-Problems 3 hours)

526. Pavement Engineering (3)
Corequisite: CE 427 or consent of instructor.
Aggregate, binder systems. Theory and design of pavement structures.
Letter grade only (A-F). (Lecture-Problems 3 hours)

528. Advanced Highway Materials (3)
Prerequisite: CE 428 with a grade of "C" or better or consent of instructor.
Hot mix asphalt design methods and lay down methods. Distress identification and rehabilitation procedures of highway materials.
(Lecture-Discussion 3 hours) Letter grade only (A-F)

529. Advanced Traffic Engineering (3)
Prerequisite/Corequisite: CE 426 or consent of instructor.
Analysis of arterial streets traffic operations. Queuing Analysis; Signal timing coordination and optimization; Use of traffic optimization and simulation computer models to solve problems.
Letter grade only (A-F). (Lecture-Problems 3 hours)

530. Groundwater Flow: Principles and Modeling (3)
Prerequisite: CE 437 with a grade of "C" or better or consent of instructor.
(Lecture 3 hrs). Letter grade only (A-F).

532. Sediment Transportation (3)
Prerequisite: CE 437 with a grade of "C" or better.
Phenomena of sediment transportation related to streams and marine environments.
Letter grade only (A-F). (Lecture-Problems 3 hours)
533. Groundwater Contaminant Transport: Principles and Modeling (3)
Prerequisites: CE 437, CE 530 all with a grade of "C" or better or consent of instructor.
(Lecture 3 hrs). Letter grade only (A-F).

535. Advanced Hydrology (3)
Prerequisite: Graduate standing or consent of instructor.
Letter grade only (A-F). (Lecture-Problems 3 hours)

536. Urban Surface Water Management (3)
Prerequisite: CE 437 with a grade of "C" or better or consent of instructor.
Planning and design of facilities to control flooding, erosion, sedimentation, and non-point source pollution for urban storm water runoff management. Presentation of analysis and design methodologies, structural and non-structural measures for management, and master planning principles.
Letter grade only (A-F). (Lecture-Problems 3 hours)

538. Hydraulic Engineering Design II (3)
Prerequisites: C E 437, CE 438 all with a grade of "C" or better or consent of instructor.
Letter grade only (A-F). (Lecture-Problems 3 hours)

542./446. Geotechnical Projects (3)
Prerequisite: CE 345 with a grade of "C" or better.
Design and problem solving oriented geotechnical projects utilizing soil mechanics theory and experimental methods according to the state-of-the-art practice.
Letter grade only (A-F). Graduate students required to do additional readings and write a research term paper to deal with current topics in geotechnical engineering. (Lecture-Problems 3 hours).

543. Waste Management and Landfill Engineering (3)
Prerequisite: Graduate standing or consent of instructor.
Advanced principles and practices of landfill engineering for waste management and subsurface flow problems. Presentation of research and case studies in geotechnical aspects of waste management and landfill engineering.
Letter grade only (A-F). (Lecture-Problems 3 hours)

546. Foundation Engineering (3)
Prerequisite: CE 345 with a grade of "C" or better or consent of instructor.
Foundation, explorations, stress and deformation relationships and design of various footings, piles, piers and caissons. Analysis of lateral loads and design of retaining structures, machinery foundations and foundation dewatering.
Letter grade only (A-F). (Lecture-Problems 3 hours)

547. Geotechnical Earthquake Engineering (3)
Prerequisite: CE 345 with a grade of "C" or better or consent of instructor.
Theory and behavior of dynamically loaded soil. Analysis, design and mitigation of geotechnical projects subjected to earthquake loading. Topics include: soil liquefaction, slope stability, retaining structures, and site response analysis.
Letter grade only (A-F). (Lecture-Problems 3 hours)

548. Advanced Soil Mechanics (3)
Prerequisite: CE 345 with a grade of "C" or better or consent of instructor.
Stress-strain time relationship of soils. Theory and methods of analysis with special emphasis on the applications and limitations in soil engineering.
Letter grade only (A-F). (Lecture-Problems 3 hours)

549. Retaining Structure and Slope Stability (3)
Prerequisite(s): CE 345 or equivalent.
Theory of earth pressures, retaining structures, design of retaining walls, sheet piles, mechanically stabilized earth, soil nails, anchored and braced excavation. Theory of slope stability, including shear strength, design charts, limit equilibrium analysis, seepage analysis, staged construction, and rapid drawdown.
Letter grade only (A-F). (Lecture-Problems 3 hours).

551. Prestressed Concrete (3)
Prerequisite: CE 459 with a grade of "C" or better.
Principles of prestressed concrete. materials used, applications to structural design, review of existing specifications.
Letter grade only (A-F). (Lecture-Problems 3 hours)

552. Theory of Plates and Shells (3)
Prerequisite: Completion of C E Graduate MATH Requirement.
Review of theory of elasticity; formulation of general equation of bending of thin elastic plates; methods of obtaining exact and approximate solutions; membrane and bending theories of shells with emphasis on cylindrical shells and shells of revolution.
Letter grade only (A-F). (Lecture-Problems 3 hours)

553. Behavior and Design of Steel Structures (3)
Prerequisite: C E 455 with a grade of "C" or better.
Study of torsion, unsymmetrical bending, stability. Plastic design, code provisions and commentary. Design of complete structural systems in steel.
Letter grade only (A-F). (Lecture-Problems 3 hours)

554. Analysis and Design with Composite Materials (3)
Prerequisite: Graduate standing or consent of instructor.
Mechanics of composite materials with design applications in aerospace, civil engineering and construction. Lab experiments on composite samples. Project required with canned computer programs.
(Lecture-Problems 3 hrs) Letter grade only (A-F).

555. Earthquake Analysis and Design (3)
Prerequisite/Corequisite: CE 495 or consent of instructor.
Advanced computational methods to evaluate responses of structural systems subjected to earthquake ground motions. Time-history and response spectrum analysis for various structural systems. Innovative earthquake design of buildings and other structures.
Letter grading only (A-F). (Lecture-Problems 3 hours)
557. Advanced Structural Analysis (3)  
Prerequisite: CE 458 with a grade of "C" or better or consent of instructor.  
Virtual forces and displacements, strain energy and complementary energy. Force and displacement matrix methods. Computer applications to planar and space frames, trusses, floor beams and shear wall systems.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

558. Dynamics of Structures (3)  
Prerequisite: CE 458 with a grade of "C" or better or consent of instructor.  
Response of structures and structural components having one or more degrees of freedom. Damping and inelastic action; earthquake and nuclear blasts, dynamic resistance of structural elements and structures, elastic and inelastic response of structures.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

562. Water Treatment System Design (3)  
Prerequisite: CE 364 with a grade of "C" or better or consent of instructor.  
Design of physical and chemical processes for water treatment plants, intake stations, predisinfection units, rapid mixing tanks, slow mixing tanks, clarifiers, granular filtration tanks, and post disinfection basins, hydraulics profiles, equipment lists, and control systems.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

563. Wastewater Treatment System Design (3)  
Prerequisite: CE 562 with a grade of "C" or better or consent of instructor.  
Design of physical and chemical biological processes for wastewater treatment, including primary, secondary and tertiary treatment combined with hydraulics profiles, equipment lists, and control systems at the plants.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

564. Environmental Health Engineering (3)  
Prerequisite: CE 364 with a grade of "C" or better or consent of instructor.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

567. Liquid and Solid Waste Project Planning and Management (3)  
Prerequisite: CE 364 with a grade of "C" or better or consent of instructor.  
The presentation of research and case studies of liquid and solid waste project planning and management.  
Letter grade only (A-F). (Lecture-Problems 3 hours)

570. Engineering Management Principles and Practices (3)  
Prerequisites: CE 406 with a grade of "C" or better, graduate standing or consent of instructor.  
Transition of engineers into management. Analysis of technical manager's functions at lower and middle levels as support to corporate management. Principles of engineering management and applications to private and public sector organizations. Case studies of practices in different technical organizations.  
Letter grade only (A-F). (Lecture 3 hours)

571. Construction Planning and Cost Control (3)  
Prerequisite: Graduate standing or consent of instructor.  
Planning, scheduling and resource allocation for a complex construction project. Topics include traditional critical path method, advanced computer expert systems and optimization techniques for construction planning and cost control.  
Letter grade only (A-F). (Lecture-Problems 3 hours)

573. Engineering Specifications, Law and Contracts (3)  
Prerequisite: Graduate standing or consent of instructor.  
Application of law of contracts to construction contracts. Legal matters of concern to engineers.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

574. Methods, Analysis and Design of Construction Operations (3)  
Prerequisite: CE 571 with a grade of "C" or better or consent of instructor.  
Equipment, methods, analysis and design of a construction operation, from site work improvement and data acquisition to modeling and design. Particular attention will be paid to interfacing between design and construction activities and work method development, productivity and safety.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

576. Construction Organization and Management (3)  
Prerequisite: Graduate standing or consent of instructor.  
An introduction to construction organization, control concepts and labor, emphasizing the business aspects of construction management. Topics include legal framework, finance in construction management, labor, accounting and other decision making in the construction business.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

577. Accounting and Finance in Construction Management (3)  
Prerequisite: CE 406 with a grade of "C" or better or consent of instructor.  
Economics and business aspects in construction, financing structure, methodology, and project financial evaluation. Emphasis is on financial aspects in property acquisition, development, construction, and project management.  
(Lecture-Problems 3 hours) Letter grade only (A-F).

578. Management of Advanced Technologies in Construction (3)  
Prerequisite: Consent of instructor.  
New development of advanced technology as applied to construction industry. Productivity and competitiveness in construction on the basis of new technology. Comparison of construction innovation in the U.S., Japan, and other countries.  
(Lecture-problems 3 hours) Letter grade only (A-F).

581. Sustainability and Green Construction (3)  
Prerequisite: Graduate standing or consent of instructor.  
Comprehensive coverage of the green building design and construction practices through high-performance, market-leading design, construction, and operation practices. Presents the green operations and management of new construction and major renovation projects, with emphasis on green building rating systems.  
(Lecture 3 hours) Letter grade only (A-F).

582. Management of Productivity and Quality (3)  
Prerequisite: CE 570 with a grade of "C" or better or consent of instructor.  
System approaches to quality and productivity in construction. Total Quality Management (TQM) in construction and management. Investigation of methods and strategies for improving competitiveness at the company level. Domestic and international competitiveness in the construction business.  
(Lecture-Problems 3 hours) Letter grade only (A-F).
585. Utility Rehabilitation and Construction (3)
State of infrastructure systems with a focus on underground facilities, diagnostic and evaluation techniques of underground utility pipes, planning, equipment, materials and methods for rehabilitation and construction of sewer and water mains using Trenchless (i.e. NO-DIG) Technology.
(Lecture-Problems 3 hours). Letter grade only (A-F).

602. Seminar in Civil Engineering (3)
Prerequisite: Graduate Standing or consent of instructor.
Presentation of research in special fields of structures, transportation, environmental, urban, geotechnical, water resources, or construction management. May be repeated once for credit. No more than six units of CE 602.
(Lecture-Problems 3 hours) Letter grade only (A-F).

629. Traffic Operations (3)
Prerequisite: CE 429 or CE 529 all with a grade of "C" or better, or consent of instructor.
Principles of traffic flow. Highway traffic operations. Evaluation of quality of traffic operations including long-range impact on efficient use of the systems and on safety. Identification and evaluation of measures of effectiveness. Travel demand management strategies and intelligent transportation system applications.
(Lecture-Problems 3 hours) Letter grade only (A-F).

630. Mathematical Modeling in Hydraulic Engineering (3)
Prerequisite: CE 437 with a grade of "C" or better or consent of instructor.
Numerical techniques for solving hydraulic problems in water supply, waste water disposal and storm drainage systems. Prediction of important parameters by mathematical modeling on problems encountered in artificial channels, rivers, estuaries and marine environments.
(Lecture-Problems 3 hours) Letter grade only (A-F).

640./740. Mathematical Modeling in Geotechnical Engineering (3)
Prerequisite: Graduate standing or consent of instructor.
Mathematical modeling techniques used in geotechnical engineering. Application of proven computer programs.
M.S. students register in CE 640; Ph.D. students register in CE 740. Ph.D. students will be required to complete an extra rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

696. Research Methods (1)
Prerequisite: Candidacy or consent of instructor.
Bibliographical and library techniques and resources. Preparation and presentation of theses and directed studies technical papers.
Letter grade only (A-F).

697. Directed Studies (3)
Prerequisites: Advancement to candidacy for degree of Master of Science in Civil Engineering, and CE 696 or consent of directed studies faculty advisor.
MSCE and MSe degree candidates in Civil Engineering and Interdisciplinary Areas need to have either CE 697 or CE 698 as their program requirement. Theoretical and experimental problems in civil engineering requiring intensive analysis.
Letter grade only (A-F).

698. Thesis (2-6)
Prerequisites: Advancement to candidacy for degree of Master of Science in Civil Engineering, and CE 696 or consent of directed studies faculty advisor.
Planning, preparation and completion of a thesis and/or project in the field of civil engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

699. Thesis (3-9)
Prerequisite: Admission to candidacy for degree of Civil Engineer. Corequisite: C E 696 or written consent of faculty advisor.
Planning, preparation and completion of a thesis in the field of civil engineering practice.
Letter grade only (A-F). May be repeated to a maximum of 9 units.

740. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours) Letter grade only (A-F).

Construction Management Courses (CEM)

LOWER DIVISION

121. Construction Drawing I (2) F
An introduction to conventional and computer aided drafting techniques in the relation of drawings for construction. Interpretation of details in construction drawings/blueprints and reference materials. Laboratory: Drafting plans for a residential building using the techniques introduced in the course.
(Lecture 1 hr, laboratory 3 hrs) Letter grade only (A-F).

125. Fundamentals of Construction (3)
Survey of the professional activities and environments of Construction Education. Overview of residential, commercial, institutional, industrial, and heavy civil construction and associated codes, standards, and ethical boundaries. Areas of focus to include type of foundations, materials, contract documents, working drawings and vocabulary.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

200. Concrete Construction (1)
Prerequisite: CEM 125 with a grade of "C" or better.
Corequisite: CEM 200L.
Concrete composition, Concrete mix design technology, physical properties of concrete, use of admixtures, concrete batching, curing, testing. Includes physical testing of designed mixes. Modern concepts as fundamental solution to concrete construction challenges. New developments in concrete chemistry and strength theory.
Letter grade only (A-F). Not open for credit to students with credit in CEM 235. (Lecture-Discussion 1 hour)

200L. Concrete Construction Laboratory (1)
Corequisite: CEM 200.
Laboratory exercises in support of CEM 200, Concrete Construction. Develop concrete mix designs and prepare concrete samples for testing, such as compressive strength, slump and air entrainment, and aggregate testing.
(Laboratory 3 hours) Letter grade only (A-F). Not open for credit to students with credit in CEM 235L.

201. Cost Accounting for Construction Engineering (3)
Theoretical Practical and concepts of cost accounting. Variable and fixed costs, break-even point, interrelationships of cost, volume and profits, job-order accounting, general and flexible budgeting, standard costs; product costing methods; cost allocation; inventory planning; control and valuation; joint product.
(Lecture-Problems 3 hours) Letter grade only (A-F).
202. Probability and Statistics for Construction Engineering Management (2)
Prerequisite: High School Algebra.
Statistics and probability theories, sampling, correlation, regression applied to Construction Management. Projects on simulation using statistical packages.
(1 hour lecture, 2 hours activity.) Letter grade only (A-F).

204. Applied Mechanics—Statics (3)
Prerequisites: MATH 122 and PHYS 100A all with a grade of "C" or better.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

206. Trends in Construction Engineering Management (2)
Prerequisites: CEM 121 and CEM 125 all with a grade of "C" or better.
Introduction to current trends including emerging technologies and practices in Construction Management (CEM). Applications of the emerging technologies and practices in CEM problem solving.
(Lecture 1 hr, laboratory 3 hrs) Letter grade only (A-F).

Prerequisites: CEM 121, CEM 125 with a grade of "C" or better. Corequisites: CEM 200, CEM 200L.
Introductory course in planning, design, and construction of residential and light commercial buildings including materials, equipment, construction/assembly methods, quantity take-off, and building codes/standards. Field trips or visual presentation is required.
(Seminar 2 hours and Activity 2 hours) Letter grade only (A-F).

UPPER DIVISION

304. Applied Mechanics Strength of Materials (2)
Prerequisite: CEM 204 with a grade of "C" or better.
Strength of structural materials and applications in building structures and machines. Mechanical properties of materials, structural behaviors of load resisting components associated with construction processes.
(Lecture-Discussion 1 hr, Activity 2 hrs) Letter grade only (A-F).

310. Communication in Engineering Profession (3)
Prerequisites: ENGL 100 or GE Composition (Area A1), COMM 110 all with a grade of "C" or better and Senior standing.
(Lecture - Discussion 3 hours) Letter grade only (A-F).

315. Construction Safety (2)
Prerequisite: CEM 225 or CE 200 all with a grade of "C" or better.
Terminology, safety functions, accident costs, workman’s compensation and liability laws, O.S.H.A., governmental and non-governmental codes, regulations and field safety methods pertinent to the construction industry. Field trips.
Not open for credit to students with credit in CEM 328. (Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

320. Operations Management in Contemporary Organizations (3)
Prerequisites: MGMT 300, ENGR 310 all with a grade of "C" or better.
Overview of Managerial and organizational theories and practices - introduction to concepts, methods to analyze and improve operations performance in construction and in service organizations. Decision-making and problem-solving processes for organizations. management Effectiveness and efficiency at the organizational, process level, and performer level.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

324. Commercial, Institutional and Industrial Construction Practices and Estimating (3)
Prerequisites: CEM 315 with a grade of "C" or better.
Fundamental of commercial construction, including building layout, shallow and deep foundations, introduction to formwork systems, high strength, heavy and light weight concrete, framing, flooring and roofing systems, construction and expansion joints, masonry and steel construction. Quantity takeoff.
(Lecture-Discussion 2 hours, Activity 2 hours). Letter grade only (A-F).

335. Soil Mechanics Technology (2)
Prerequisite: CEM 304 with a grade of "C" or better. Corequisite: CEM 335L.
Soil Composition, description, and classification; soil compaction; determination of physical properties of soils.
(Lecture-Problems 2 hours) Letter grade only (A-F).

335L. Soil Mechanics Technology Laboratory (1)
Prerequisite: CEM 304 with a grade of "C" or better. Corequisite: CEM 335.
Laboratory investigations and experiments in the phenomena of soil mechanics. Field trips.
(Laboratory 3 hours) Letter grade only (A-F).

365. Mechanical Equipment for Buildings (2)
Prerequisite: PHYS 100B with a grade of "C" or better. Corequisite: CEM 324.
Principles and current practices in water supply, waste disposal, heating, ventilating, air conditioning and fire protection.
(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

373. Fundamentals of Integrated Project Delivery (3)
Prerequisite: Junior standing.
General overview of the attributes of all major project delivery systems, procurement methodologies and contracting approaches.
(2 hrs lecture, 2 hrs activities) Letter grade only (A-F).

375. Electrical Equipment for Buildings (2)
Prerequisite: CEM 324, PHYS 100B all with a grade of "C" or better. Principles and current practices in the application of electrical equipment and material utilization, sound and signal systems.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

404. Structural Design I (2)
Prerequisite: CEM 304 with a grade of "C" or better.
Fundamentals of design for structural concrete and masonry buildings in compliance with current building codes.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

409. Directed Studies in Construction Engineering Management (3)
Prerequisites: Senior standing in CEM or consent of instructor.
Advanced work of a technical nature within an area of specialization on an experimental or research basis.
Letter grade only (A-F). Not open to students who have previously obtained 1-2 units of this course.
421. Construction Planning and Scheduling (3)
Prerequisite: CEM 324 with a grade of "C" or better.
Planning and scheduling of construction projects by graphic charts and Critical Path Method (CPM) networks utilizing manual and computer methods.
Letter grade only (A-F). Field trips. (Lecture-Discussion 2 hrs, Activities 2 hrs)

425. Earthwork and Civil Works Construction Practices (2)
Prerequisite: CEM 324, CE 406 all with a grade of "C" or better.
Fundamentals of earthmoving operations, including volume calculation and mass diagrams, soil protection and dewatering systems, volume change characteristics and fundamentals of moving earth, equipment selection, management and economics.
(Lecture 1 hour and Activity 2 hours) Letter grade only (A-F).

426. Business and Construction Law (3)
Prerequisites: CEM 324; BLAW 220 all with a grade of "C" or better.
Contractors license, mechanics lien, subdivision laws; public works projects, bid and bid requirements. Litigation and legal trends in affirmative action, design professional's liability. Administrative procedures of contractors. Study documentation, claims, waivers, arbitration, bonding, insurance, and indemnification. Discuss ethical practices.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

429. Advanced Estimating and Bidding (3)
Prerequisite: CEM 315 with a grade of "C" or better.
Corequisite: CEM 425.
Concept and practices involved in the total estimate bidding process in construction, form initial project selection for submission of final bids. A complete project estimate and bid is prepared by each study.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).

431. Construction Cost Control (3)
Prerequisites: CE 406 and CEM 421 all with a grade of "C" or better.
Establishing and controlling construction projects cost through utilization of procedures, techniques and systems commonly used to control resources allocated and to be expended on construction projects.
(2 hrs lecture, 2 hrs activities) Letter grade only (A-F).

432. Facility Administration (3)
Prerequisite: CEM 421 with a grade of "C" or better.
Management skills for facility management. Emphasis is placed on the management functions of planning, organizing, directing and controlling. Topics include: negotiation; communication; performance measurement; job enrichment; motivation; contracting services and interpersonal relationships.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

433. Facility Finance Management (3)
Corequisite: CEM 432.
Analysis of financial management strategies associated with facility management. Topics include: buy-lease considerations; building efficiency; leasing considerations; cost control and record keeping; facility capitalization; facility budgeting; cost benefit analysis and financial reports.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

434. Facility and Property Management (3)
Prerequisite: CEM 433 with a grade of "C" or better.
Principles of facility and property management. Topics include: property development; cost benefit analysis; site selection; architectural design; layout plans; building engineering; specifications; stacking and blocking plans; aesthetic standards; renovation and contracting standards.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

436. Facility Operations Management (3)
Prerequisite: CEM 432 with a grade of "C" or better.
Analysis of the functions of facility operations management. Topics include: building systems; mechanical systems; energy management; electrical systems; trades operations; grounds maintenance; custodial; furniture and equipment; waste removal contracting services; furnishing standards; security systems and planned maintenance.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

438. Structural Design II (2)
Prerequisite: CEM 304 with a grade of "C" or better.
Simplified designs for steel and wood structures in accordance with current building codes. Selection of structural steel and wood systems with structural characteristics of members and connections.
(Lecture 1 hour, Activity 2 hours) Letter grade only (A-F).

443. Principles of Design-Build Project Delivery (3)
Prerequisite: CEM 373 with a grade of "C" or better.
General overview and unique distinguish essential elements of design-build project delivery and how to make the mental-shift needed to transition from traditional Design-Bid-Build to design-build project delivery.
(2 hrs lecture, 2 hrs activities) Letter grade only (A-F).

476. Construction and Maintenance of Infrastructure Facilities (2)
Prerequisites: CEM 425 with a grade of "C" or better.
Comprehensive coverage of the construction principles and technologies embraced by the heavy civil industry. The course presents the construction methods and maintenance practices of heavy civil projects, with emphasis on utility pipes, bridges and roads.
(Lecture 1 hour - Activity 2 hours) Letter grade only (A-F).

485. CEM Senior Seminar (3)
Prerequisites: CEM 429 and CEM 431 all with a grade of "C" or better or consent of instructor.
Advanced work of a technical nature within the construction industry. All students will be required to participate into the Bid Competitions.
(Lecture 2 hours, Activity 2 hours). Letter grade only (A-F).

486. Infrastructure Management (2)
Prerequisites: CEM 476 and CE 406 all with a grade of "C" or better.
Integrated approach to infrastructure management theories and practices including: tools, models and applied systems. The course presents the principles required to manage, preserve and improve the performance of infrastructure systems, with emphasis on utility pipes, bridges and roads.
(1 hr lecture, 2 hrs activities) Letter grade only (A-F).

490. Construction Project Management (3)
Prerequisites: CEM 426, CEM 429 and CEM 431 all with a grade of "C" or better.
Integrative learning capstone design course. A supervised design team project, incorporating all aspects of project management of design-build projects. Technical aspects, social, environmental, and economic issues considered. Ethical concepts discussed. Oral presentations and written reports are required
(2 hrs lecture, 2 hrs activities) Letter grade only (A-F).
Department Chair: Carl Fisher  
Department Office: McIntosh Humanities Building (MHB), Rm 515  
Telephone / Fax: (562) 985-4239 / (562) 985-4863  
Website: http://www.cla.csulb.edu/departments/complit-classics  
Faculty: Kathryn Chew, Douglas Domingo-Forasté, Paul Scotton  
Undergraduate Advisor: Kathryn Chew  
Administrative Support Coordinator: Nancy Comito

Students desiring information should contact the department office for an appointment with the advisor.

Career Possibilities
Creative/Media Writer • Editor • Technical Writer • Librarian • Copywriter • Literary Agent • Foreign Service Officer • Public Relations Worker • Medicine • Market Researcher • Educator • Lawyer • Government Affairs Officer • Management Trainee • Underwriter • Claims Adjuster (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
Classics includes the study of the languages, literatures and civilizations of ancient Greeks and Romans. Classics offers the Bachelor of Arts in Classics and minors in Classical Studies, Latin, and Greek. Within the Classics major two options are offered, Roman Civilization and Greek Civilization. Students interested in graduate school in either Classics or Classical Archaeology should consult the departmental advisor as early as possible in their academic careers.

The department recommends that some time be spent in either Italy or Greece on one of the many programs designed to familiarize students with the physical remains of these civilizations (College Year at Athens, the American School of Classical Studies at Athens, the Aegaean Institute, the Intercollegiate Center for Classical Studies in Rome, etc.). Courses at one of these institutions may be substituted for CSULB courses with departmental approval.

Undergraduate Programs

Bachelor of Arts in Classics (120 units)

Option in Latin and Roman Civilization

Requirements
42 units with a minimum of 21 upper division units (excluding LAT 300)

1. Elementary Latin (with a minimum of 6 units from the following):
   - LAT 101A Elementary Latin (4)  
     Prerequisite/Corequisite: Any Foundation course.
   and
   - LAT 101B Elementary Latin (4)  
     Prerequisite/Corequisite: Any Foundation course.
     Prerequisite: LAT 101A or equivalent.

   or
   - LAT 300 Intensive Latin (6)  
     Prerequisite: None

The requirements in this category may be met by high school equivalents.

2. Intermediate Latin (4)
   - LAT 301 Intermediate Latin (4)  
     Prerequisite: LAT 101B or LAT 300

3. Upper Division Latin (12 units) from the following:

4. Take the following course:
   - CLSC 202 Latin Literature (3)  
     Prerequisite: GE Foundation requirements.

5. Take 3 units from the following:
   - CLSC 110, CLSC 210, CLSC 440, CLSC 460, CLSC 480

6. Take 6 units from the following not taken to fulfill requirements of category 5:
   - CLSC 100, CLSC 101, CLSC 110, CLSC 130, CLSC 300, CLSC 312, CLSC 340, CLSC 380, CLSC 410, CLSC 420, CLSC 440, CLSC 460, CLSC 480, CLSC 490.

7. Take 8 units from the following:
   - GK 101A, GK 101B; AH 417; CLSC 350, 366; HIST 314; POSC 301, R/ST 471

Option in Greek and Greek Civilization

Requirements
40 total units with a minimum of 21 upper division units:

1. Elementary Greek (8 units):  
   - GK 101A Elementary Greek (4)  
     Prerequisite/Corequisite: Any Foundation course.
   - GK 101B Elementary Greek (4)  
     Prerequisite: GK 101A or equivalent.
     Prerequisite/Corequisite: Any Foundation course.

2. Upper Division Greek (12 units) from the following:  
   - GK 401, GK 402, GK 403, GK 404, GK 405, GK 490.

3. Take the following course:
   - CLSC 201 Ancient Greek Literature (3)  
     Prerequisite: GE Foundation Requirements.

4. Take 3 units from the following:
   - CLSC 110, CLSC 430, CLSC 450, CLSC 470

5. Take 6 units from the following not taken to fulfill requirements of category 4:
   - CLSC 100, CLSC 101, CLSC 110, CLSC 130, CLSC 300, CLSC 310, CLSC 340, CLSC 380, CLSC 410, CLSC 420, CLSC 440, CLSC 450, CLSC 470, CLSC 490.

6. Take 8 units from the following:
   - LAT 101A, LAT 101B, LAT 300; AH 416; CLSC 350, 366; HIST 313; PHIL 421, PHIL 422; POSC 301, R/ST 471.
Single Subject Teaching Credential in Latin

The subject matter program in Latin consists of 37 units in Latin and related areas. Completion of these courses meets the subject matter competence requirement for the Single Subject Teaching Credential in Latin. Courses taken for subject matter competence for the teaching credential also count toward units needed for the Classics B.A., Option in Latin and Roman Civilization. Prospective students should consult the Latin Education Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their programs.

In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective teachers of Latin are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of professional preparation requirements, courses, and application procedures.

Requirements

1. Take all the following:
   LAT 301 Intermediate Latin (4)
   Prerequisite: LAT 101B or LAT 300 or equivalent.
   LAT 401 Vergil (3)
   Prerequisite: LAT 301 or equivalent.
   LAT 402 Cicero (3)
   Prerequisite: LAT 301 or equivalent.
   LAT 410A Latin Prose Composition (1)
   Prerequisite: LAT 301 or equivalent.
   LAT 410B Latin Prose Composition (1)
   Prerequisite: LAT 410A.
   LAT 410C Latin Prose Composition (1)
   Prerequisite: LAT 410B.
2. Take seven courses from the following:
   LAT 403, LAT 404, LAT 405, LAT 406, LAT 407, LAT 408, LAT 409, LAT 490, LAT 499.
3. Take one course from the following:
   HIST 312, HIST 314; CLSC 420, CLSC 440; AH 417.
   Students are required to keep a portfolio of written work produced in the above classes with instructor comments. Members of the Latin faculty evaluate the portfolio according to established criteria. The credential candidate also takes an exit examination administered by the Latin faculty which will assess pronunciation, speech and conversation, listening and writing, and reading. Credential students also produce a Latin play.

Minor in Classical Studies

This minor is offered to students majoring in any subject except Classics. Interested students should contact the Classics Advisor prior to or during the first semester of taking courses.

The Minor consists of a minimum of 20 units that must include a minimum of 9 units of upper division coursework selected from the following:

1. Two courses in Latin or Greek in the same language.
2. A minimum of two courses from the following:
   CLSC 100, CLSC 101, CLSC 110, CLSC 130, CLSC 201, CLSC 202, CLSC 300, CLSC 340, CLSC 380, CLSC 410, CLSC 420, CLSC 430, CLSC 440, CLSC 490; CWL 452 (with an appropriate topic); or additional courses in Latin or Greek, not necessarily in the same language as selected in (1).
3. A minimum of two courses from the following:
   CLSC 310 or HIST 310; CLSC 312, or HIST 312; CLSC 210; CLSC 350; HIST 313, HIST 314; PHIL 421, PHIL 422; AH 408, AH 416, AH 417; ANTH 140, ANTH 450; POSC 301; R/ST 471.

Minor in Greek

A minimum of 20 units in Greek which must include four upper division courses. Prospective teachers are strongly urged to take, in addition, HIST 313, CLSC 101, CLSC 300, and other courses touching on the ancient world.

The Minor in Greek is available to any non-Classics major.

Minor in Latin

A minimum of 20 units in Latin which must include four upper division courses. Prospective teachers are strongly urged to take, in addition, HIST 314, CLSC 101, CLSC 300, and other courses touching on the ancient world.

The Minor in Latin is available to any non-Classics major.

Classics Courses (CLSC)

LOWER DIVISION

100. The Classical World of Greece and Rome (3)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to the literature, language and culture of the ancient Greek and Roman worlds. Use of primary sources, such as drama, epic, inscriptions, and the visual arts to explore issues of gender, mythology, theater, combat and sports, slavery and family.

101. Greek Mythology (3)
Prerequisite/Corequisite: One GE Foundation course.
A survey of the major Greek myths, sagas and tales of gods and heroes, and their influence on later eras, particularly ancient Rome.
Not open for credit to students with credit in CLSC 191.

110. Classical Archaeology (3)
Prerequisites/Corequisite: One GE Foundation course.
Introduction to the study of the material culture of Greece, Etruria and Rome from the Minoans to Constantine. Covers history of archaeology, chronology and dating systems and analytical methods of material culture including urban planning, construction techniques, and architecture.

130. Women in the Classical World (3)
Prerequisite/Corequisite: One GE Foundation course.
A survey of the roles and status of women in ancient Greece, Rome and Etruria through literature by and about women and other ancient source material.
Not open for credit to students with credit in CLSC 135.
201. Ancient Greek Literature (3)
Prerequisite: GE Foundation requirements.
A survey of the literature of ancient Greece from Homer and Hesiod to Lucian and the novelists (c. 700 BC to AD 400).

202. Latin Literature (3)
Prerequisite: GE Foundation requirements.
A survey of the literature of the ancient Romans in translation, focusing on major authors from Plautus to Augustine (200 BC to AD 450).

210. Roman Myth and Legend (3)
Prerequisite: One GE Foundation course.
A survey from literature and artifacts of the major Roman myths and legends of heroes and gods focusing on their impact and influence on Rome’s development and identity as well as that on subsequent cultures.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Pagan Culture (3)
Prerequisites: GE Foundation requirements, completion of one or more Explorations course, and upper division standing.
Examines the mass cultures of the Greek and Roman periods, its worldview, and its philosophic and religious underpinnings through literary, artistic, archaeological and documentary sources.
Not open for credit to students with credit in CLSC 310.

310. Greek World (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the society and culture of ancient Greece emphasizing literature, the arts, and history. Topics include Homer, mythology and religion, lyric poetry, the Persian and Peloponnesian Wars, the Athenian Golden Age, and Greek contributions to the modern world.
Same course as HIST 310. Not open for credit to students with credit in CWL 310 or HIST 310.

312. Roman World (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Interdisciplinary examination of the society and culture of ancient Rome emphasizing literature, the arts, and history. Topics include genesis and growth of the Roman world, transition from republic to Empire, imperial maturity, and Roman contributions to the modern world.
Same course as HIST 312. Not open for credit to students with credit in CWL 312 or HIST 312.

340. The Underworld (3)
Prerequisite: One course in Classics or consent of instructor.
In-depth investigation of the realm of the dead as given in ancient Greek and Roman myth. Topics include its topography and population, journeys to it, and interpretations of it. Comparative analysis of ancient myths of the underworld from other cultures.

350. Hollywood Does Rome (3)
Prerequisites: CLSC 100 or CLSC 101 or CLSC 202 or consent of instructor.
Investigation of filmmakers’ motives and methods used to portray ancient Romans from the beginnings of cinema to the present. Topics include ‘imagining’ the past, ‘power’ of image, community and society, cultural imperialism, film theory, ‘language’ of myth, and reception theory.

Same course as FEA 350. Not open for credit to students with credit in FEA 350.

366. Classical Stories, Modern Voices (3)
Prerequisite: Completion of Foundation courses and upper-division standing.
Comparative readings of ancient literature in a global context, including analysis of classical literary genres and archetypes, their modern interpretations/rewritings, and their echoes in popular culture.
Same course as CWL 366. Not open for credit to students with credit in CWL 366.

370. Medicine in the Ancient World (3)
Prerequisites: Completion of Foundation Courses, Upper-Division Standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Medical theory and practice throughout Greek and Roman antiquity. Starting with early literacy references to medical practice, the course then explores classical philosophical foundations for scientific thought and evaluates the treatises of early medical writers for their place in the history of medicine.
Letter grade only (A-F).

380. Ancient Eats (3)
Prerequisite: Completion of GE Foundation requirements or consent of Instructor.
Survey of food in the Roman Empire and elsewhere in the ancient Mediterranean world. Topics include farming, sustainability, trade, purchasing, processing, production, ingredients, recipes, tools, the place and function of feasts, and food in myth, cult and philosophy.

410. Law and Literature in the Classical World (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Introduction to the study of philosophy and interpretation of law through classical literature that encompasses fundamental legal questions and ancient legal source material and the application of modern theories of literary criticism to ancient and modern law.

420. Classical Drama (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examination of the plays of Aeschylus, Sophocles, Euripides, and Aristophanes both as literature and as theater. Includes origins of tragedy and comedy, later Greek and Roman drama, and debt of modern drama to the theater of Greeks.
Not open for credit to students with credit in CLSC 421.

430. Archaeology of Ancient Greece (3)
Prerequisite: one of the following courses: CLSC 110, ANTH 140, HIST 131, or AH 416/516, or consent of instructor.
The material culture of ancient Greece, from Minoans to Constantine including urban planning, architecture, sculpture, painting, ceramics, burial customs, religious and secular artifacts, epigraphy and numismatics. Examines chronology and dating systems, analytical methods and history of classical archaeology in Greece.

440. Archaeology of the Roman World (3)
Prerequisite: Completion of one of the following: CLSC 110, ANTH 140, HIST 131, or AH 417/517, or consent of instructor.
The material culture of Roman empire, from Villanovans to Constantine including urban planning, architecture, sculpture, painting, ceramics, burial customs, religious and secular artifacts, epigraphy and numismatics. Examines chronology and dating systems, analytical methods and history of archaeology of Roman empire.
450. Aegean Bronze Age Archaeology (3)
Prerequisite: CLSC 110 or consent of the instructor
The first true civilizations of the Western World arose in the
Aegean Basin during the Bronze Age (ca. 3000–1000 BCE). This
course is an investigation of their development and their impact
upon the civilizations that followed.

460. Etruscan Archaeology (3)
Prerequisite: CLSC 110 or consent of the instructor
Before Rome there was a highly developed and advanced
civilization in Italy. Focuses upon their extensive cities, remains,
and the significance of the Etruscan people and culture.

470. Monuments of Athens (3)
Prerequisite: CLSC 110 or consent of Instructor.
Athens is known as the birthplace of democracy. Studies the
extensive remains of key structures and monuments of ancient
Athens and how they relate to the history and development of one
of the most famous of all ancient cities.

480. Monuments of Rome (3)
Prerequisite: CLSC 110 or consent of Instructor.
The capital of what became the Roman Empire, Rome has a
rich record of monuments and structures. Focuses upon the
monuments of the Classical and pre-Classical city and the
development of the then center of the Western World.

490. Selected Topics in Classics (1-4)
Prerequisite: Consent of instructor.
Topics of special interest in Classics selected for intensive study.
May be repeated to a maximum of 6 units with different topics.
Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of
special interest.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

598. Directed Readings in Classics (1-4)
Prerequisites: Graduate standing and consent of instructor.
Selected topics in Classics or Classical Archaeology will be studied
in depth.
A term paper is required. Letter grade only (A-F).

Greek Courses (GK)

LOWER DIVISION

101A. Elementary Greek (4)
Prerequisite/Corequisite: Any Foundation course.
Introduction to ancient Greek, the language of Sophocles, Plato,
Aristophanes, Homer and Demosthenes. Forms, syntax and basic
vocabulary leading also to a reading knowledge of New Testament
Greek. Designed for those beginning a study of ancient Greek.

101B. Elementary Greek (4)
Prerequisite: GK 101A or equivalent.
Prerequisite/Corequisite: Any Foundation course.
Continuation of GK 101A.

102. New Testament and Early Christian Greek (1)
Corequisite: GK 101B.
Supplemental graded readings and writing exercises in New
Testament Koine Greek and other very early Christian literature
such as the Didache and the Epistle of Clement.

UPPER DIVISION

General Education Category A must be completed prior to taking
any upper-division course except upper division language courses
where students meet formal prerequisites and/or competency
equivalent for advanced study.

401. Homer (3)
Prerequisite: GK 101B or equivalent.
Translation and literary study of selected books of the Iliad or
Odyssey.

402. Plato (3)
Prerequisite: GK 101B or equivalent.
Translation and literary study of one or more dialogues of Plato.

403. Tragic Poets (3)
Prerequisite: GK 101B or equivalent.
Reading of a play of Aeschylus, Sophocles or Euripides.
May be repeated to a maximum of 9 units with different topics in
different semesters.

404. Historians (3)
Prerequisite: GK 101B or equivalent.
Reading from selections from Herodotus, Thucydides and/or
Xenophon.
May be repeated to a maximum of 9 units with different topics in
different semesters.

405. Attic Orators (3)
Prerequisite: GK 101B or equivalent.
Reading of a speech of Demosthenes, Antiphon, Andocides,
Lysias, Isocrates, Aeschines, Hyperides, Isaeus, Lycurgus,
Dinarchus or selections from various orators.
May be repeated to a maximum of 9 units with different topics in
different semesters.

490. Selected Topics in Greek (1-3)
Prerequisites: 12 units of upper-division Greek courses or consent
of instructor.
Translation and literary study of the selected works of an author,
genre (e.g., oratory) or period (e.g., Hellenistic Greek).
May be repeated to a maximum of 12 units. Topics announced in the
Schedule of Classes.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of
special interest.
May be repeated to a maximum of 6 units.

Latin Courses (LAT)

LOWER DIVISION

101A. Elementary Latin (4)
Prerequisite/Corequisite: Any Foundation course.
Introduction to the Latin language as used by Vergil, Cicero, Livy,
Catullus, Tacitus, and Juvenal as well as later Latin and medieval
writers. Basic forms, syntax, and basic vocabulary leading to a
reading knowledge.

101B. Elementary Latin (4)
Prerequisite: LAT 101A or equivalent.
Prerequisite/Corequisite: Any Foundation course. Prerequisite: LAT
101A or equivalent.
Continuation of LAT 101A.
UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Intensive Latin (6)
Equivalent to two semesters of Elementary Latin. Designed for undergraduate and graduate students with little or no knowledge of Latin, whose degree programs require or recommend a reading knowledge of the language.
Not open for credit to students with credit in LAT 101B or LAT 321.

301. Intermediate Latin (4)
Prerequisite: LAT 101B or LAT 300 or equivalent.
Continued study of the language and culture of the ancient Romans. Reading and translating selections of classical writers.

401. Vergil (3)
Prerequisite: LAT 301 or equivalent.
Reading of selections from Vergil’s Aeneid, and/or selections from the Georgics and Eclogues.
May be repeated to a maximum of 6 units with different topics in different semesters, which includes previously earned credit in GK 352.

402. Cicero (3)
Prerequisite: LAT 301 or equivalent.
Reading of one or more works of Cicero.
May be repeated to a maximum of 6 units with different topics in different semesters, which includes previously earned credit in GK 351.

403. Latin Lyric and Elegy (3)
Prerequisite: LAT 301 or equivalent.
Reading of selected poems of one or more of the lyric and elegiac poets: Catullus, Horace (Odes, Epodes, Carmen Saeculare), Propertius, Tibullus, and Ovid (Amores).
May be repeated to a maximum of 6 units with different topics in different semesters.

404. Latin Epic (3)
Prerequisite: LAT 301 or equivalent.
Reading of selections from Lucretius’ De Rerum Natura and/or Ovid’s Metamorphoses.
May be repeated to a maximum of 6 units with different topics in different semesters.

405. Historiography of the Republic (3)
Prerequisite: LAT 301 or equivalent.
Reading of selections from Sallust and/or Julius Caesar.
May be repeated to a maximum of 6 units with different topics in different semesters.

406. Historiography of the Empire (3)
Prerequisite: LAT 301 or equivalent.
Reading of selections from Livy and/or Tacitus.
May be repeated to a maximum of 6 units with different topics in different semesters.

407. Latin of the Early Principate (3)
Prerequisite: LAT 301 or equivalent.
Reading of selections from the following authors and works: Pliny the Younger, Martial, Seneca’s letters, Suetonius.
May be repeated to a maximum of 6 units with different topics in different semesters.

408. Roman Comedy (3)
Prerequisite: LAT 301 or equivalent.
Reading of one or more plays of Plautus and Terence.
May be repeated to a maximum of 6 units with different topics in different semesters.

409. Roman Satire (3)
Prerequisite: LAT 301 or equivalent.
Reading of selected satires of Horace, Juvenal, or Persius, the Satyricon of Petronius or the Apocolocyntosis of Seneca the Younger.
May be repeated to a maximum of 6 units with different topics in different semesters.

410A-B-C. Latin Prose Composition (1-1-1)
A. Prerequisite: LAT 301 or equivalent.
B. Prerequisite: LAT 410A.
C. Prerequisite: LAT 410B.
Thorough instruction in writing Latin prose at the advanced level. Extensive coverage of syntax and morphology of Latin.

490. Selected Topics in Latin (1-3)
Prerequisites: LAT 301 or equivalent.
Translation and study of authors of a particular period (e.g., Medieval Latin) or of a methodological specialty (e.g., Latin epigraphy).
May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special interest.
May be repeated to a maximum of 6 units.
COMMUNICATION STUDIES
College of Liberal Arts

Chair: Ann Johnson
Department Office: Academic Services (AS), Room 309
Telephone / FAX: (562) 985-4301 / 985-4259
Website: http://www.cla.csulb.edu/departments/communicationstudies/


Department Administrator: Wendy Lucas
Hauth Center for Communication Skills
Administrative Director: Tim Plax
Technical Director: Scott Allen

Students desiring information about the Communication Studies program at CSULB should contact the department undergraduate advisor or the graduate advisor.

Career Possibilities
Public Relations Specialist • Personnel Specialist • Claims Adjuster • Radio/TV Announcer • Community Organization Worker • Actor/Actress • Management Trainer • Foreign Service Officer • Advertising Worker • Development Officer/ Fundraiser • Lobbyist • Clergy • Lawyer • College Professor • Freelance Writer • Researcher • Politician • Promoter • Speech Writer (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
Department of Communication Studies provides students with a liberal arts education in communication arts and sciences with specialized training in communication skills and practices at the baccalaureate and graduate levels. The Department of Communication Studies provides two major services to the University community. Each student is required to consult with the department undergraduate or graduate advisor as appropriate for advisement.

NOTE: Lower-division 100 and 200 level classes taken through California Community Colleges satisfy lower-division CSULB Communication Studies requirements.

Undergraduate Programs

Bachelor of Arts in Communication Studies (120 units)

Admission Under Impaction
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements
This requires 48 units of which 36 are upper division. All Communication Studies majors, regardless of option chosen, are required to complete the following core:

1. Lower Division Core (12 units):
Take all the following:

COMM 110 Interpersonal Communication (3)
* "C" or better required
Prerequisites: None.

COMM 130 Essentials of Public Speaking (3)
* "C" or better required
Prerequisites: None

COMM 131 Essentials of Argumentation (3)
* "C" or better required
Prerequisites: None.

COMM 200 Gateway to Communication Studies (3)
Prerequisites: None

*Students must take COMM 200 in their first year of declaring the major

2. Upper Division Core (15 units):
Take all the following courses:

COMM 300 Survey of Rhetorical Theory (3)
Prerequisite: GE Foundation requirements.

COMM 301 Communication Criticism (3)
Prerequisite: COMM 300.

COMM 306 Communication Theory (3)
Prerequisites: None

COMM 307 Measurement in Communication Research (3)
Prerequisites: COMM 306 and completion of University GE requirement in mathematics.

COMM 330 Intercultural Communication (3)
Prerequisites: None

3. Elective Courses: (21 units, 9 units must be 400-level) selected from the following:

COMM 309, COMM 331, COMM 333, COMM 334, COMM 335, COMM 337, COMM 338, COMM 344, COMM 352, COMM 355, COMM 358, COMM 400, COMM 410, COMM 411, COMM 412, COMM 414, COMM 415, COMM 420, COMM 421, COMM 422, COMM 430, COMM 431, COMM 432, COMM 433, COMM 434, COMM 436, COMM 437, COMM 439, COMM 441, COMM 442, COMM 444, COMM 449, COMM 450, COMM 452, COMM 490

Only courses in which a "C" or better have been earned may be applied to satisfy upper division requirements in the major. Classes taken in which less than adequate grades are received must be repeated until an adequate grade is achieved. Majors will not be permitted to take any upper division class in the major on a credit/non-credit basis.

Option in Communication, Culture, and Public Affairs (120 units)

Requirements
This option requires 48 units of which 36 are upper division. All Communication Studies majors, regardless of option chosen, are required to complete the following core.

1. Lower Division Core (12 units):
Take all the following:
COMM 110 Interpersonal Communication (3)
* "C" or better required
Prerequisites: None.
COMM 130 Essentials of Public Speaking (3)
* "C" or better required
Prerequisites: None.
COMM 131 Essentials of Argumentation (3)
* "C" or better required
Prerequisites: None.

*COMM 200 Gateway to Communication Studies (3)
Prerequisites: None
*Students must take COMM 200 in their first year of declaring the major.

2. Upper Division Core (15 units):
Take all the following courses:
COMM 300 Survey of Rhetorical Theory (3)
Prerequisite: GE Foundation requirements.
COMM 301 Communication Criticism (3)
Prerequisite: COMM 300.
COMM 306 Communication Theory (3)
Prerequisites: None
COMM 307 Measurement in Comm Research (3)
Prerequisites: COMM 306 and completion of University GE requirement in mathematics.
COMM 330 Intercultural Communication (3)
Prerequisites: None

3. Electives (21 units, 9 units must be 400-level) selected from the following:
COMM 309, COMM 331, COMM 333, COMM 335, COMM 336, COMM 338, COMM 352, COMM 412, COMM 415, COMM 422, COMM 430, COMM 433, COMM 434, COMM 436, COMM 437, COMM 439, COMM 441, COMM 442, COMM 449, COMM 490
(consult with a communication studies advisor about which 490 courses are appropriate for this degree option).

Only courses in which a "C" or better have been earned may be applied to satisfy upper division requirements in the major. Classes taken in which less than adequate grades are received must be repeated until an adequate grade is achieved. Majors will not be permitted to take any upper division class in the major on a credit/non-credit basis.

Minor in Communication Studies
The Minor in Communication Studies is available to any non-Communication Studies major. A minimum of 21 units in Communication Studies is required, of which at least 15 must be upper division, chosen in consultation with the Department Undergraduate Advisor.

Graduate Programs

Master of Arts in Communication Studies
This degree allows the student to construct a personalized program that draws from the following areas: rhetorical, interpersonal, organizational, or intercultural communication, performance studies, forensics or instructional communication.

Admission
1. Application for Admission to the University. The office of Enrollment Services processes applications to the University and forwards those meeting University criteria to the Department.
2. Application to the Department. In addition to the University
application, prospective students are also required to submit an application and supporting materials directly to the Department. An application form along with detailed instructions are available online at the Department's website (http://www.csulb.edu/depts/comstudies). Generally, the department accepts students who have a minimum 3.0 Overall Undergraduate GPA and a minimum combined score of 900 on the Verbal and Quantitative sections of the Graduate Record Exam (minimum of 400 per section) on August 1, 2011, the GRE revised the test and scoring system. For tests taken after, August 1, 2011, applicants will need a minimum combined score of 297 on the Verbal and Quantitative sections, with no less than 146 on either section. The decision to admit is never based on a single indicator. Students who do not meet these requirements may seek admission through appeal.

General Considerations
1. Requirements
   A. All requirements date from the time at which a student receives approval for Advancement to Candidacy, not from when a student begins graduate study.
   B. The Department requires a minimum of thirty semester hours (including four thesis credits in the Thesis Option) for the Master’s Degree. The University requires a minimum of twenty-four graduate credits be completed in residence.
   C. Students must either pass the Department’s comprehensive examination or write an acceptable thesis.
   D. The Department expects its graduate students to possess the writing skills necessary for advanced study. Fulfill the Graduation Writing Assessment Requirement (GWAR). Students should fulfill the GWAR no later than the end of the first semester of graduate study. If you believe you have taken an examination equivalent to fulfillment of the GWAR, consult the Graduate Advisor.

2. Prerequisites
   A. Units obtained fulfilling prerequisites or deficiencies do not count toward the minimum of thirty semester hours needed to complete the Master’s degree.
   B. Students must meet all prerequisites before enrolling in graduate courses, except for COMM 541 or COMM 546. Individuals may petition for waiver of this rule prior to registering for courses if compelling reasons warrant such a waiver.
   C. Students must comply with all University regulations outlined in the CSULB Catalog.

   Prerequisites
   Individuals with a Bachelor’s degree in Communication Studies (or its equivalent) from a fully-accredited college or university must have approved coursework in the following: COMM 300, COMM 301, COMM 306, COMM 307.

Requirements
1. A minimum of thirty hours of graduate work in Communication Studies distributed as follows:
   A. Complete prior to advancement to candidacy and preferably within the first semester of graduate work: COMM 541 Rhetorical Theory and Criticism I (3)

   Prerequisites: None
   COMM 546 Communication Theory and Research I (6)
   Prerequisites: None
   B. Complete preferably in the second semester:
      COMM 640 Rhetorical Theory and Criticism II (3)
      Prerequisite: COMM 541.
      COMM 646 Communication Theory and Research II (6)
      Prerequisites: COMM 307 (or equivalent) and 546.
   C. 18 units of graduate level electives or 15 units of electives plus 3 thesis units

2. No more than 3 units may be taken outside the Communication Studies Department or transferred from another institution. The graduate advisor must approve any courses taken outside the department or transferred from another institution.

3. Completion of the Department’s Comprehensive Examination or of an acceptable thesis. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

4. Please note that Internships and student teaching cannot be included in the required thirty units.

Questions
Any questions not answered in these pages should be directed to the Department Graduate Advisor.

Graduate Courses in Communication Studies
Students may apply the following graduate courses in Communication Studies toward the Master’s Degree: COMM 531, COMM 541, COMM 546, COMM 590, COMM 610, COMM 611, COMM 614, COMM 620, COMM 630, COMM 633, COMM 634, COMM 635, COMM 636, COMM 637, COMM 639, COMM 640, COMM 646, COMM 649, COMM 650, COMM 697, COMM 698

Undergraduate Core Courses
COMM 300, COMM 301, COMM 306, COMM 307, and COMM 330.

Communication Studies Courses (COMM)

LOWER DIVISION

110. Interpersonal Communication (3)
Lecture: Basic characteristics of processes underlying the formation, maintenance and termination of interpersonal relationships; theoretical and practical implications of these characteristics in various forms of interpersonal communication.
Workshop: Planned exercises and activities to develop interpersonal communications skills.
(Lecture 2 hours, Workshop 2 hours). Not open for credit to students with credit in COMM 210.

130. Essentials of Public Speaking (3)
Composition and delivery of speeches to inform and persuade. Logical organization is stressed.
131. Essentials of Argumentation (3)
Lecture: Theory of argumentation; examination of forms and sources of evidence, inductive and deductive arguments, construction of case briefs, and refutation.
Workshop: Develops critical thinking abilities with planned exercises and speeches including construction and presentation of arguments, cases, and refutation.

132. Small Group Discussion (3)
Basic principles and techniques of discussion. Relationship of discussion to democratic processes and contemporary society including a study and practice of critical thinking and problem-solving techniques in various group discussion settings.

200. Gateway to Communication Studies (3)
Introduction to the academic discipline of communication studies with emphasis on multiple epistemological, theoretical, and methodological issues relevant to the systematic inquiry and pursuit of knowledge about human communication.
Letter grade only (A-F).

220. Elements of Organizational Communication (3)
Role of communication in achieving organizational goals; theory and practice of communication in private and public organizations; techniques to enhance understanding in organizations.

236. Forensic Activity (1-3)
Participation in intercollegiate forensic activities. Any student who expects to participate in such activities during the semester should enroll. Specific assignments will be determined in consultation with the staff.
May be repeated to a maximum of 4 units. (2-6 hrs. activity)

UPPER DIVISION

300. Survey of Rhetorical Theory (3)
Prerequisite: GE Foundation requirements.
History of major rhetorical theories from the ancient Greeks to the Twentieth century. Theorists include Gorgias, Plato, Aristotle, Cicero, Quintilian, Augustine, Machiavelli, Locke, Marx, Freud, the existentialists, and others.

301. Communication Criticism (3)
Prerequisite: COMM 300.
Analysis and criticism of public communication events including speeches, editorials, advertisements, and mass media from a variety of rhetorical perspectives.

306. Communication Theory (3)
Conceptual perspectives and studies of coding, meaning, thinking, information, and persuasion within interpersonal, group and organizational contexts; theoretical contributions from other disciplines.

307. Measurement in Communication Research (3)
Prerequisites: COMM 306 and completion of University GE requirement in mathematics.
Application of the scientific method to the study of speech communication; examination of the role empirical methodologies play in communication research; fundamental statistical processes.
Letter grade only (A-F). (Not open for credit to students with credit in COMM 305)

309. Language and Behavior (3)
Symbolic basis of human communicative behavior; relationship between language and behavior; investigation and analysis of discourse and behavioral effects.

330. Intercultural Communication (3)
Study of the relationship between culture and communication with emphasis given to social, psychological, linguistic and nonverbal variables; problems in the practice of intercultural communication.

331. Argumentation and Debate (3)
Prerequisite: GE Foundation requirements.
Techniques of argumentation and their application to debate; logic, reasoning and fallacies of reasoning; experience in various forms of formal argument and debate; techniques of debate program administration.

333. Performing Culture (3)
Prerequisite: Completion of Foundation requirements.
Class participants use performance and other qualitative research methods to explore issues of race, gender, sexuality, ethnicity, class, and other cultural standpoints. Also includes a survey of relevant critical and cultural theories.

334. Business and Professional Communication (3)
Prerequisite: COMM 130 or consent of instructor.
Skills and technologies related to the assessment, strategic planning, development, implementation, and evaluation of effective communication in the business and professional setting.

335. Persuasive Speaking (3)
Prerequisites: GE Foundation requirements.
Skills necessary for advanced public speaking in various venues including legislative, legal, and ceremonial public address; explores various theories of motivation including speaker credibility, emotional appeals, of evidence and argument, style in language, delivery and audience analysis skills.

336. Forensic Activity (1-3)
Participation in intercollegiate forensic activities. Any student who expects to participate in such activities during the semester should enroll. Student’s specific assignments will be determined in consultation with the staff.
May be repeated to a maximum of 4 units. (2-6 hrs. activity)

337. Professional Event Planning (3)
Organization and direction of professional, business and political conferences or conventions; program simulation; leadership of and participation in decision making and parliamentary sessions.

338. Ensemble Performance (3)
Programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.

344. Theory and Techniques of Interviewing (3)
Theory and techniques of oral communication in the process of interviewing. Practical application in employment, information gathering, and persuasive interviews.

352. Story Telling (3)
Cultural heritage in story telling; analysis of story types for oral presentation; techniques of preparation, presentation and listening.

355. Communication in the Classroom (3)
Designed for prospective teachers; communication theories, and skills applicable to the teaching of speech communication; focus on communication strategies that contribute to greater student learning; develop an instructional package for teaching speech communication.

358. Speech Arts for Children (3)
Use of creative dramatics, improvisations, puppetry, choral speech, radio, television and group discussion for the purpose of developing fluency, responsiveness and imagination in children. Integration of speech arts activities with curricular subjects will be stressed. Opportunity to apply the theories in actual situations.
400. Nonverbal Communication (3)
Prerequisites: COMM 110.
Basic characteristics of the nonverbal elements of human communication in the oral communication setting.

410. Advanced Concepts in Interpersonal Communication (3)
Prerequisites: COMM 110.
Systems and symbolic interaction approaches to interpersonal communication; consideration of interpersonal needs, self disclosure, understanding, interpersonal perception, interpersonal attraction, and social conflict; rule and performance-centered theories of interpersonal communication.

411. Communication in Conflict Resolution (3)
Prerequisites: GE Foundation requirements, completion of one or more GE Exploration courses, and upper division standing.
Analytical investigation of the nature and dynamics of interpersonal conflict; approaches to the study and understanding of conflict management as examined from intrapersonal, interpersonal, intragroup, organizational, and international perspectives.

412. Gender and Communication (3)
Prerequisites: GE Foundation requirements, completion of one or more GE Exploration courses and upper-division standing.
Survey of theories and research literature to increase students’ understanding of and familiarity with major issues regarding communication between men and women in various contexts.

414. Communication in Families (3)
Role of communication in families; theoretical perspective of family interaction, current family issues, intercultural aspects of family interaction, effects of changing career/family roles, and intergenerational interaction.
Letter grade only (A-F).

415. Rhetoric of Social Movements and Protest (3)
Examines goals, strategies, and effects of groups that form to advocate social, political, and/or moral change. Focuses on how (agitator) groups communicate messages, and how institutions of power (establishment) respond in order to control or resist change.

420. Advanced Concepts in Organizational Communication (3)
Prerequisites: COMM 220.
Philosophy, methods and designs for studying the communication systems of complex organizations; organizational communication-needs assessment, methods for developing and improving communication in organizations are examined.

421. Communication in Bargaining and Negotiation (3)
Role of communication in the decision-making process of negotiation and bargaining; emphasis on the functions of communication in resolving disputes through bargaining.
Successful completion of COMM 411 is highly recommended.

422. Media Effects (3)
Prerequisites: Upper-division standing and GE Foundation requirements.
Introduces students to the study of the effects of mass communication by examining some of the classic studies in the field of communication as well as exploring contemporary cultural, social, political and psychological effects of the mass media.

430. Advanced Concepts in Intercultural Communication (3)
Prerequisites: COMM 330 or consent of instructor.
Continued study of communication processes involved in interaction between people from different cultural groups; exploration of culturally variable means of thinking and behaving, and study of social psychological processes affecting all forms of intergroup interaction.
Letter grade only (A-F).

431. Mediation and Dispute Resolution (3)
Prerequisites/Corequisites: COMM 330 or COMM 430, COMM 411 and COMM 421, or consent of instructor.
Essential communication skills and processes involved in becoming a conflict mediator; certificate awarded after successful completion of course.
Letter grade only (A-F).

432. Communication Leadership (3)
Development of leadership skills in problem-solving communication environments; leadership theories, strategies and techniques of problem-solving and decision making.

433. Trends in Performance Studies (3)
Trends and issues in the theoretical and historical development of oral interpretation as applied to current times.

434. Advanced Oral Presentation Skills (3)
Prerequisite: GE Foundation requirements; one or more GE Exploration courses; and upper-division standing.
Development of advanced skills in oral presentations, including audience analysis, presentation technologies, and multi-media applications. Special consideration paid to research and critical analysis of written and oral presentation content and delivery.
Letter grade only (A-F).

435. International Public Address (3)
Comparison and contrast of famous American speakers and their techniques, effects and environments from the colonial period to present.

437. International Public Address (3)
Comparisons and contrasts of famous international speakers and their techniques, effects, and environments from the Greco-Roman era to the present.
Letter grade only (A-F).

439. Communication and Popular Culture (3)
Examines the relationship between communication and popular culture in the public sphere. The course aims at improving students’ abilities to respond critically to everyday mass social messages.
Letter grade only (A-F).

441. Issues in Freedom of Communication (3)
Prerequisites: Upper division standing and GE Foundation requirements, and at least two GE Exploration courses. Recommended COMM 331 or COMM 335.
The evolution and impact of First Amendment rights on American society and its political system; Emphasis on the evolution of the First Amendment, significant Supreme Court cases, the First Amendment and electronic media, and the application of case laws that deal with religion, speech, press, and assembly. Recommended for pre-law students.
442. Campaign Persuasion (3)
Prerequisites: GE Foundation requirements, upper division standing, and at least two GE Exploration courses. It is recommended that one be COMM 331 or COMM 335.
Examination of persuasive communicative strategies in political campaigns inclusive of campaign speeches, commercials, news media coverage, image-building, audience analysis through polling, and fund raising.

444. Communicating Civility (3)
Prerequisites: Upper division standing and GE Foundation requirements.
Examine codes of “civilized” communication behavior historically and analytically. Identify what it means to be an ethical and civilized communicator in today’s society, and appreciate professional and personal protocols for everyday use.
Letter grade only (A-F).

449. Studies in Oral Persuasion and Attitude Change (3)
Attitude formation and change through oral communication; factors in persuasion; problems determining the effects of persuasive messages; source credibility, message variables; and personality factors in the process of persuasion.

450. Communication Training in Organizations (3)
Nature and role of communication training in a variety of social, educational, and business organizations; the goals, structure, and impact of communication effectiveness programs are examined; audiovisual aids and communication training techniques emphasized.

452. Communication in the Multinational Organization (3)
Communication patterns in multinational and multicultural organizational settings; the nature and impact of different organizational structures, value systems, and cultural norms in relation to productivity, employee and organizational obligations and expectations.

490. Selected Topics in Communication Studies (3)
Topics of current interest selected for intensive study in Communication.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

492A-B. Internship (3-3)
Prerequisite: Permit required to enroll with consent of instructor; open only to senior majors.
At least 120 hours with cooperating organizations on- or off-campus. Work directed and evaluated by instructor in consultation with supervisor of the participating organizations. Assignments will be varied.
Credit/No Credit grading only. COMM 492A is for unpaid internship. COMM 492B is for paid internship.

495. Service Learning Internship (3)
Prerequisites: Communication Studies Major with Senior Standing; minimum 3.0 GPA for all college coursework taken; COMM 130 or COMM 335 or their equivalents; COMM 392 or COMM 355 or COMM 358, or the consent of instructor.
Application of academic knowledge of communication skills in the community; public speaking, listening, interpersonal communication, group communication, multicultural communication, and/or interviewing skills training (1) to students in K-12 schools or (2) to persons in the public sector.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

499. Special Studies (1-6)
Prerequisites: “Permit” required to enroll. Open to upper division students or graduate standing and consent of instructor. Approved “Agreement for Independent Study” must be on file with the Department prior to enrolling in this course.
Individualized laboratory or library research selected in consultation with instructor. Written report of the research is required. Not acceptable for graduate credit toward the master’s degree.

GRADUATE LEVEL

531. Administering the Forensic Program (3)
Prerequisite: “Permit” required to enroll with consent of instructor.
Principles of constructing and administering a forensic program, including recruiting, squad direction, budgeting, tournament policies, and current literature on forensics direction.
Letter grade only (A-F).

541. Rhetorical Theory and Criticism I (3)
Introduction to research in rhetorical studies. Examination of major figures and schools of thought in rhetorical theory and criticism from the Pre-Socratics through the contemporary modern British era.

546. Communication Theory and Research I (3)
Examination of theories and research in social cognition, interpersonal, small group, organizational, intercultural, mass, instructional, language and behavior, and nonverbal communication. Critical analysis of empirically-based articles in the field. Social-scientific research proposal required.
Letter grade only (A-F).

590. Selected Topics in Communication Studies (3)
Prerequisite: Consent of instructor.
Investigation of topics of current interest and concern to students in communication and allied areas.
May be repeated to a maximum of 6 units with different topics, no more than 3 units may count toward the Communication Studies master’s degree. Topics announced in the Schedule of Classes.

590A. Theory and Criticism of Presidential Rhetoric (3)
Examines presidential communication theory and criticism. Topics under consideration include the changing office of the US presidency as well as the evolving role of the first lady. Rhetorical artifacts for analysis span the history of the US presidency.

610. Seminar in Interpersonal Communication (3)
Prerequisite: COMM 546 or consent of instructor.
Current theories and research in interpersonal communication.
Letter grade only (A-F).

611. Seminar in Negotiation and Conflict Resolution (3)
Prerequisites: COMM 411 or COMM 421 and COMM 546 or consent of instructor.
Investigation, analysis, and criticism of the nature, development, and dynamics of conflict and the role of negotiation in interpersonal, group, organizational, and international and intercultural communication; study and understanding of conflict management.
Letter grade only (A-F).

614. Gender and Family Research (3)
Major theoretical perspectives on the role of communication in family and gender issues; epistemological, conceptual, and methodological issues in researching family and gender communication.
Letter grade only (A-F).
620. Seminar in Organizational Communication (3)
Prerequisite: COMM 546 or consent of instructor.
Theories and models of communication in large organizations; design and management of organizational communication systems.
Letter grade only (A-F).

630. Seminar Intercultural Communication (3)
Prerequisites: COMM 541 and COMM 546 or consent of instructor.
Analysis of cultural influences on interpersonal communication; emphasis given to cultural values, perception, social organization, language and nonverbal codes; development of strategies of effective intercultural communication in international and domestic settings.

633. Seminar in Interpretive Communication (3)
Prerequisite: COMM 541 or consent of instructor.
Theories of communicative interpretation of literature, with emphasis on the theory and evaluation of oral presentation of literature as art form and pedagogical instrument.
Letter grade only (A-F).

634. Performance and Ethnography (3)
Students use ethnographic methods to explore the relationship between culture and performance. Students choose a community, conduct fieldwork and collect/perform stories in order to better understand a particular population.
Letter grade only (A-F).

635. Seminar in Communication Criticism (3)
Prerequisite: COMM 541 or consent of instructor.
Critical theories of rhetoric and major systems of communication criticism; development of criteria and approaches for the evaluation of select communication acts and contexts.
Letter grade only (A-F).

636. Seminar in American Public Communication (3)
Prerequisite: COMM 541 or consent of instructor.
Studies of American rhetorical events and their social, political and intellectual settings; application of rhetorical theory in the analysis of these events.
Letter grade only (A-F).

637. Seminar in International Public Communication (3)
Prerequisite: COMM 541 or consent of instructor.
Studies of international rhetorical events and their social, political, and intellectual settings; application of rhetorical theory in the analysis of these public communication events.
Letter grade only (A-F).

639. Seminar in Communication and Popular Culture (3)
Prerequisite: COMM 541 or consent of instructor.
Survey of literature on rhetoric, critical studies, and popular culture to provide a basis for investigating communication in popular culture.
Letter grade only (A-F).

640. Rhetorical Theory and Criticism II (3)
Prerequisite: COMM 541.
Examination of major figures and themes in rhetorical theory and criticism in the contemporary era.

646. Communication Theory and Research II (3)
Prerequisites: COMM 307 (or equivalent) and COMM 546.
Empirical research methodologies applied to communication research; theory and design of scientific research; analysis of findings; computer applications; research report required.

649. Seminar in Persuasion and Attitude Change (3)
Prerequisite: COMM 546 or consent of instructor.
Contemporary theories and models of persuasion; structure and relationships of beliefs, values and attitudes; methods of assessing persuasive effects; analysis of research literature.
Letter grade only (A-F).

650. Seminar in Instructional Communication (3)
Prerequisites: COMM 541 and COMM 546 or consent of instructor.
Designed for teachers/trainers, the course will identify communication variables and strategies which contribute to greater student/client learning as well as greater satisfaction with the learning process. Students will develop an instructional/training package.
Letter grade only (A-F).

697. Directed Research (1-6)
Prerequisites: COMM 541 and COMM 546; authorization of the department Graduate Advisor, Agreement for Independent Study Course form, consent of instructor.
Directed research leading to the definition and discussion of a selected problem or issue in communication and the presentation of research results in a formal paper submitted to the department. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

698. Thesis (2-4)
Prerequisites: COMM 541, COMM 546, COMM 640 and COMM 646, authorization of the department Graduate Advisor, Agreement for Independent Study Course form, consent of instructor.
Preparation, completion and submission of an acceptable thesis in partial fulfillment of the requirements for the Master's degree. Credit/No Credit grading only.
COMPARATIVE WORLD LITERATURE
College of Liberal Arts

Department Chair: Carl Fisher
Department Office: McIntosh Humanities Building (MHB), Rm 515
Telephone / Fax: (562) 985-4239 / (562) 985-4863
Website: http://www.cla.csulb.edu/departments/complit-classics/
Professors: Elizabeth Dahab, Carl Fisher, Vlatka Velcic
Undergraduate Advisor: Vlatka Velcic (562) 985-1815
Administrative Support Coordinator: Nancy Comito

Students desiring information should contact the department office for an appointment with the advisor.

Career Possibilities
Creative/Media Writer • Editor • Technical Writer • Librarian • Copywriter • Literary Agent • Literary Critic • Foreign Service Officer • Public Relations Worker • Market Researcher • Educator • Lawyer • Government Affairs Officer • Management Trainee • Underwriter • Claims Adjuster (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Bachelor of Arts in Comparative World Literature (120 units)
The Bachelor of Arts in Comparative World Literature has three emphasis options:
1) World Literature in Translation
2) Cultural Studies
3) Language and Literature

Emphasis I: World Literature in Translation
The World Literature in Translation emphasis allows students to explore a variety of literatures in a flexible curriculum adapted to their interests, with the goal of developing applied skills and global competencies.

Requirements
A minimum of 36 units distributed as follows:
Lower Division (12 units):
6 units 100-level CWL courses chosen from:
CWL 100, CWL 101, CWL 103, CWL 104, CWL 124, CWL 132, CWL 161
6 units 200-level CWL courses chosen from:
CWL 205, CWL 210, CWL 213, CWL 220

Courses which fulfill the GE C2a designation may be substituted for CWL lower-division courses. For other possible lower-division substitutions, see department advisor.

Upper Division (24 units)
Take both of the following:
CWL 330A Masterpieces of European Literature (3)
Prerequisite: One course in literature or consent of instructor.

And one of the following:
CWL 361 Masterpieces of Literary Criticism (3)
Prerequisite: None

CWL 365 Cultural Studies: Histories, Theories, and Issues (3)
Prerequisite: One course in literature or instructor’s consent.

Take 6 units 300-level CWL courses chosen from:
CWL 300, CWL 305, CWL 315, CWL 334, CWL 342, CWL 344, CWL 346, CWL 349, CWL 350, CWL 366

Take 9 units 400-level CWL courses chosen from:

Emphasis II: Cultural Studies
Cultural Studies is the interdisciplinary study of literature and other forms of cultural expression within social and historical contexts. This emphasis offers a core of literature classes and an interdisciplinary pattern of cultural studies courses from the Liberal Arts.

Requirements
A minimum of 36 units distributed as follows:

Required courses (9 units):
CWL 330A Masterpieces of European Literature (3)
Prerequisite: One course in literature or consent of instructor.

CWL 330B Masterpieces of European Literature (3)
Prerequisite: One course in literature or consent of instructor.

CWL 365 Cultural Studies: Histories, Theories, and Issues (3)
Prerequisite: One course in literature or instructor’s consent.

6 units 300-level CWL or CLSC courses chosen from:
CWL 305, CWL 334, CWL 342, CWL 344, CWL 346, CWL 349, CWL 350, CWL 361, CWL 366; CLSC 310, CLSC 312.

9 units 400-level CWL courses chosen from:

Elective Courses in Cultural Studies
12 upper-division units in appropriate cultural studies courses, including additional Comparative World Literature classes or Category F capstones, drawn from the following departments or areas: American Indian Studies, Anthropology, Art History, Asian and Asian American Studies, Africana Studies, Chicano and Latino Studies, Classics, Dance, English, Film and Electronic Arts, History, Religious Studies, Romance, German, Russian Languages and Literatures, Women’s, Gender, and Sexuality Studies, or other appropriate departments and areas of study. Consult a department advisor about courses which will count toward the Cultural Studies emphasis.
Emphasis III: Language and Literature

The traditional undergraduate major in Comparative Literature, encouraging language acquisition, designed to prepare the student for graduate study in Comparative Literature or related fields.

A minimum of 42 units distributed as follows:

Lower Division (12 units):
- 6 units 100-level CWL courses chosen from:
  - CWL 100, CWL 101, CWL 103, CWL 104, CWL 124, CWL 132, CWL 161.
- 6 units 200-level CWL courses chosen from:
  - CWL 205, CWL 210, CWL 213, CWL 220.
Courses which fulfill the GE C2a or C2c designation may be substituted for CWL lower-division courses.

For other possible lower-division substitutions, see department advisor.

Upper Division (24 units):
- Take both of the following:
  - CWL 330A Masterpieces of European Literature (3)
    Prerequisite: One course in literature or consent of instructor.
  - CWL 330B Masterpieces of European Literature (3)
    Prerequisite: One course in literature or consent of instructor.

And one of the following:
- CWL 361 Masterpieces of Literary Criticism (3)
  Prerequisite: None
- CWL 365 Cultural Studies: Histories, Theories, and Issues (3)
  Prerequisite: One course in literature or instructor's consent.

- Take 6 units 300-level CWL or CLSC courses chosen from:
  - CWL 300, CWL 305, CWL 334, CWL 342, CWL 344, CWL 346, CWL 349, CWL 350, CWL 366; CLSC 310, CLSC 312.
- Take 9 units 400-level CWL courses chosen from:

Foreign Language Requirement

6 units upper-division foreign language courses, including at least one literature course. For this emphasis, a year of a second foreign language study is encouraged but not required.

Minor in Comparative World Literature

This minor provides a flexible program for the student who is majoring in another discipline.

Requirements

A minimum of 15 units in Comparative World Literature, of which at least 9 are upper division excluding:
- CWL 499. Directed Studies (1-4)
  Prerequisite: Consent of instructor.

The Center for Medieval and Renaissance Studies

The Center offers two programs. Undergraduate students can pursue a certificate or a minor in Medieval and Renaissance Studies. Graduate students can pursue a certificate. Interested students should turn to “Medieval and Renaissance Studies” in this catalog and/or contact the program directors in MHB 512.

Comparative World Literature Courses (CWL)

LOWER DIVISION

100. Introduction to World Literature (3)
Prerequisite/Corequisite: Any GE Foundation course.

Readings in translation from world literature. Emphasis on how literature engages unique cultural elements around the world as well as cross-cultural comparisons.

101. Introduction to Comparative World Literature (3)
Prerequisite/Corequisite: Any GE Foundation course.

Introduction to basics of literary interpretation and comparative literature. Strongly recommended for majors in Comparative World Literature.

103. Introduction to Comparative Asian Literature and Culture (3)
Prerequisite/Corequisite: Any GE Foundation course.

Introduction to India and China cultures through an exploration of their literatures, cultures, and diasporas. Focus will be on the modern period.

104. Literature and Culture of the Middle East (3)
Prerequisite/Corequisite: Any GE Foundation course.

Introduction to Middle Eastern and North African culture through an exploration of their literatures, with a focus on some of the major figures of the twentieth- and twenty-first centuries, such as Naguib Mahfouz, Ghassan Kanafani, Edward Said, and others.

Letter grade only (A-F).

124. Introduction to World Theatre and Drama (3)
Prerequisite/Corequisite: Any GE Foundation course.

Introduction to all aspects of theatre including criticism, dramatic literature, movements, themes, historical background and theatrical production from different parts of the world.

132. World Mythology (3)
Prerequisite: None

An introduction to the study of mythology in global context, with an emphasis on literary content an cultural prospective.

Not open for credit to students with credit in CWL 232.

161. Reading the World (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).

Introduction to contemporary theories of reading and interpretation. Examination of diverse forms of human expression and critical understanding from around the world and across the disciplines designed to develop and refine a broad repertoire of reading tools and practices.

205. Digital Literature and Culture (3)
Prerequisites: Completion of the GE Foundation courses

Introductory survey of digital literature and culture from early experiments to contemporary uses of internet technology and interactive platforms. Combines historical and cultural backgrounds with comparative and analytical skill development necessary for understanding digital literature in local and global contexts.

210. Erotica, Love, Romance: Literary and Cultural Representations (3)
Prerequisite: Completion of 6 units in Category A, GE foundation requirement

Explores interdisciplinary representations of eroticism, love, and romance across history and cultures, including diverse contemporary representations of love and sexuality.
213. Visual Studies: Comics and Graphic Novels (3)
Prerequisite: GE Foundation requirements
Introductory study of Comics and Graphic Novels across cultures and within global contexts by emphasizing visual narrative storytelling as well as the political, social and visual trends that have shaped the powerful creative industry of comics around the world.

215. From Cradle to Crypt: Representations of Lifespan (3)
Pre-requisites: ENGL 100 or GE Composition (Area A1)
Pre-requisites/Co-requisites: ANTH 120 or HDEV 180 or PSY 100 or SOC 100
This course explores representations of the lifespan, from birth to death, highlighting interdisciplinary approaches to understanding literary and cultural texts in comparative and global contexts. Same course as HDEV 215. Not open for credit to students with credit in HDEV 215.

220. Literature and Play (3)
Prerequisite: GE Foundation requirements.
Explores interrelation of human physiological, social, and psychological states of being in culturally and historically diverse works of literature concentrated on the nature of human play and the purpose of human games.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Representing the World: Literature and Culture in Contact and Conflict (3)
Prerequisite: GE Foundation and upper-division status. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
A writing-intensive exploration of world literature in comparative and cultural contexts, with an emphasis on themes and topics of global relevance.

305. Science Fiction and Global Technologies (3)
Prerequisite: G.E. Foundation and upper-division status. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Comparative study of science fiction as a global discipline, across cultures and time periods, emphasizing technological advances, sociopolitical implications, and imaginative constructions.

315. Literature and Medicine (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary examination of the complex relationship between medicine and human experience, integrating materials from the humanities and social sciences to explore diverse experiences across cultures, between and among genders, and in various economic and social contexts.
Letter grade only (A-F).

320. Comic Spirit (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of comedy as a literary genre and of the manifestation of the comic spirit in related art forms such as music, art, and film, focusing on the history and philosophy of comedy as well as theories of laughter.

324. Theatre Today (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examines current trends, achievements and problems in contemporary western theatre and dramatic literature. Particular attention will be paid to multicultural expression in the theatre.
Same course as THEA 324. Not open for credit to students with credit in THEA 324.

330A,B. Masterpieces of European Literature (3,3)
Prerequisite: One course in literature or consent of instructor.
Representative selections, in translation, of European texts to and since the Renaissance, and their relation to the development of Western civilization.

334. Introduction to East Asian Literatures and Cultures (3)
Prerequisite: GE Foundation requirements.
A comprehensive introduction to the comparative study of East Asian cultures through the reading of representative selections from the literatures of China, Korea, and Japan in historical context. Focus is on the modern period.
Not open for credit to students with credit in A/ST 334.

342. The Bible as Literature (3)
Prerequisite: GE Foundation requirements.
Reading of representative Biblical selections interpreted from a literary standpoint.

344. Literature of the Holocaust (3)
Prerequisites: One course in literature or consent of instructor.
Intensive study of literary works of different genres and cultural backgrounds, from 1945 to the present, to analyze the strategies writers use to present the historical events and the cultural reverberations of the Holocaust.

346. Readings in World Poetry (3)
Prerequisite: One course in literature or consent of instructor.
Representative selections of the poetry of the world from the earliest examples to the present. Facing-page translations will be included.

349. Selected Topics – Literary Movements (3)
Prerequisite: One course in literature or consent of instructor.
Intensive study of a movement or theme in world literature. Specific movement or theme announced in the Schedule of Classes.
May be repeated to a maximum of 9 units with different topics.

350. Global Literature in American Culture (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Comparative and thematic study of transnational literary culture, as represented in at least three distinct American ethnic groups. Readings examined in relation to contemporary global themes and in relation to the original national literatures.

361. Masterpieces of Literary Criticism (3)
Study of literary criticism from Plato to the present, focusing on history of literary and cultural theory as well as methods of critical analysis applied to literary texts and other forms of cultural expression.
365. Cultural Studies: Histories, Theories, and Issues (3)
Prerequisite: one course in literature or instructor’s consent.
Cultural studies in a global, comparative context, including theories of discursive practices and identity politics; examined through theoretical discourses about literature and the arts and also as an interpretive technique for cultural institutions, practices, and products.

366. Classical Stories, Modern Voices (3)
Prerequisite: GE Foundation requirements and upper-division standing.
Comparative readings of ancient literature in a global context, including analysis of classical literary genres and archetypes, their modern interpretations/rewritings, and their echoes in popular culture.
Same course as CLSC 366. Not open for credit to students with credit in CLSC 366.

402./502. Selected Topics - Middle Eastern Literature and Culture (3)
Prerequisite: One course in literature or consent of instructor.
Study of specific authors, themes, genres, movements, or aspects of literature and culture in the Middle East or between the Middle East and the West.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

403./503. Selected Topics - Asian Literature (3)
Prerequisite: One course in literature or consent of instructor.
Interrelationships of two or more authors, themes, genres, movements or aspects of literature and culture in Asia or between Asia and the West.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

404./504. Selected Topics - Women in World Literature (3)
Prerequisite: One course in literature or consent of instructor.
Study of the role of women in world literature.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

406./506. Selected Topics - East European Literature and Culture (3)
Prerequisite: One course in literature or consent of instructor.
Major movements, authors, and themes in Eastern European literature and culture (Slavic and non-Slavic) and/or the relationship of East European literature and culture and Western Europe and North America.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

410. Literature and Music (3)
Prerequisite: One course in literature or consent of instructor.
Examination of relationship between music and literature in 19th and 20th centuries with emphasis placed on representative literary works and musical compositions that show mutual influences and common features and structures.

412. Art and Literature (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary study of 19th and 20th Century art and literature, emphasizing comparative analysis of styles, methods, principles, and movements across genres as well as major artists, writers and theorists in their social and historical contexts.

414. Medieval World (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing.
Interdisciplinary examination of major themes in medieval society and culture, with an emphasis on literature, the arts, and the historical forces that combined to produce medieval culture as a whole.

415. Ethnic Literature and Culture in America (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing.
Comparative, interdisciplinary study of multicultural literature in historical and sociopolitical context. Ethnic groups include Native American, African American, Latino/Latina, Asian American and Middle Eastern American.

420. Selected Topics - Comic Spirit (3)
Prerequisite: CWL 320 or consent of instructor.
Study of specific themes, theories, genres and/or interdisciplinary relationships in comedy.
May be repeated for a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

422. Renaissance Theatre and Drama (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary study of the achievements, problems, themes and trends of Renaissance drama in Italy, Spain, France, and England between 1350 and 1650. Major plays of the period are read in translation, with attention to literary and theatrical elements.

430./530. Dante (3)
Prerequisite: One course in literature or consent of instructor.
A reading, in translation, of the major works of Dante, including the Vita Nuova and the Divine Comedy. Examination is also given to the comparative nature of Dante’s work: his sources and his influence on later writers, artists, and composers.

432./532. Continental Renaissance Literature (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of the major non-dramatic works of Renaissance Europe, including authors such as Petrarch, Boccaccio, Lorenzo de’ Medici, Machiavelli, Ariosto, Tasso, Ronsard, Rabelais, Erasmus, and Cervantes. Emphasis is also given to influences, trends, and contributions to the modern world.

435./535. Literature of the Enlightenment (3)
Prerequisite: One course in literature or consent of instructor.
A comparative study of European literature, from approximately 1650 to 1800, with an emphasis on reading literary works within historical context and considering the imaginative and intellectual achievements and legacies of the Enlightenment.

437./537. Romantic Literature (3)
Prerequisite: One course in literature or consent of instructor.
Representative selections, in translation, from European writers of the Romantic period with an emphasis on a comparative study of works from Germany and France from about 1770-1850.

438./538. 20th Century European Literature (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of continental European literature from 1900 to present. Focus on novels and drama. Topics include realism, naturalism, psychological novel, theatre of the absurd, existentialism, modernism, postmodernism, and postcolonialism.

440./540. Selected Topics - Latin American Literary Studies (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of major literary genres in Latin American literature in relation to principal periods and movements of Western literary tradition.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.
445./545. Selected Topics - American Folktale Studies (3)
Prerequisite: One course in literature or consent of instructor.
Topics chosen to provide a bridge between literary, aesthetic and specialized folkloristic studies of American culture. Special attention paid to European and Third World contributions to American folklore.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

448./548. Selected Topics - Comparative Studies (3)
Prerequisite: One course in literature or consent of instructor.
Interrelationship of two or more disciplines, with emphasis on reciprocal influences and borrowing of materials during various literary periods. The class will feature a different interdisciplinary study each semester.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

449./549. Selected Topics - Major Continental Writers (3)
Prerequisite: One course in literature or consent of instructor.
Intensive and comparative study of one to three major continental authors.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

A. Nobel Prize Laureates
Prerequisite: Consent of instructor.

451. Film and Novel in Society (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary study of two genres, with particular focus on novels made into films and on aesthetic distinction of both forms as major genres in 20th and 21st centuries.

452./552. Selected Topics - Mythology (3)
Prerequisites: One course in literature or consent of instructor.
Interrelationship of two or more mythologies, mythical themes or theories of mythology. Different areas of study of mythology each semester.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

453./553. Fairy Tales (3)
Prerequisite: One course in literature or consent of instructor.
Study of fairy tale as a unique literary genre and art form. Class will apply contemporary theory to tales and identify psychological, religious, cultural, and alchemical patterns and symbols that manifest the realization of identity and illustrate creative processes.

461./561. Selected Topics - Contemporary Literary Criticism (3)
Prerequisite: Two upper-division literature courses or consent of instructor.
In-depth study of a particular critic or movement in contemporary literary theory.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

492. Internship Program (1-3)
Prerequisites: Consent of instructor and department chair.
Field work in literature-related industries. Internships and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. Credit/No Credit grading only.

495. Genre (1-3)
Prerequisite: Consent of instructor.
Production of student journal, Genre, including editing, design, soliciting contributors, working with printer, desktop publishing, and financial management. Organizational meeting previous fall semester. Contact department office for information.
May be repeated to a maximum of 9 units. Credit/No Credit grading only.

499. Directed Studies (1-4)
Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units with consent of department.

GRADUATE LEVEL

501. Advanced Interdisciplinary Study (3)
Intensive study of the theories and methods of comparing and interrelating literature with other disciplines such as various areas among the fine arts, the social sciences and the sciences. Course will involve independent research.
Letter grade only (A-F).

502./402. Selected Topics - Middle Eastern Literature and Culture (3)
Prerequisite: One course in literature or consent of instructor.
Study of specific authors, themes, genres, movements, or aspects of literature and culture in the Middle East or between the Middle East and the West.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

503./403. Selected Topics - Asian Literature (3)
Prerequisite: One course in literature or consent of instructor.
Interrelationships of two or more authors, themes, genres, movements or aspects of literature and culture in Asia or between Asia and the West.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

504./404. Selected Topics - Women in World Literature (3)
Prerequisite: One course in literature or consent of instructor.
Study of the role of women in world literature.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

506./406. Selected Topics - East European Literature and Culture (3)
Prerequisite: One course in literature or consent of instructor.
Major movements, authors, and themes in Eastern European literature and culture (Slavic and non-Slavic) and/or the relationship of East European literature and culture and Western Europe and North America.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

530./430. Dante (3)
Prerequisite: One course in literature or consent of instructor.
A reading, in translation, of the major works of Dante, including the Vita Nuova and the Divine Comedy. Examination is also given to the comparative nature of Dante’s work: his sources and his influence on later writers, artists, and composers.
Letter grade only (A-F).
532./432. Continental Renaissance Literature (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of the major non-dramatic works of Renaissance Europe, including authors such as Petrarch, Boccaccio, Lorenzo de' Medici, Machiavelli, Ariosto, Tasso, Ronsard, Rabelais, Erasmus, and Cervantes. Emphasis is also given to influences, trends, and contributions to the modern world.
Letter grade only (A-F).

535./435. Literature of the Enlightenment (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of European literature, from approximately 1650 to 1800, with an emphasis on reading literary works within historical context and considering the imaginative and intellectual achievements and legacies of the Enlightenment.

537./437. Romantic Literature (3)
Prerequisite: One course in literature or consent of instructor.
Representative selections in translation from European writers of the Romantic period with an emphasis on a comparative study of works from Germany and France from about 1770-1850.

538./438. 20th Century European Literature (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of continental European literature from 1900 to present. Focus on novels and drama. Topics include realism, naturalism, psychological novel, theatre of the absurd, existentialism, modernism, postmodernism, and postcolonialism.
Letter grade only (A-F).

540./440. Selected Topics - Latin American Literary Studies (3)
Prerequisite: One course in literature or consent of instructor.
Comparative study of major literary genres in Latin American literature in relation to the principal periods and movements of the Western literary tradition.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

545./445. Selected Topics - American Folklore Studies (3)
Prerequisite: One course in literature or consent of instructor.
Topics are chosen to provide a bridge between literary, aesthetic and specialized folkloristic studies of American culture. Special attention will be paid to European and Third World contributions to American folklore.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

548./448. Selected Topics - Comparative Studies (3)
Prerequisite: One course in literature or consent of instructor.
Interrelationship of two or more disciplines, with emphasis on reciprocal influences and borrowing of materials during various literary periods. The class will feature a different interdisciplinary study each semester.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

549./449. Selected Topics - Major Continental Writers (3)
Prerequisite: One course in literature or consent of instructor.
Intensive and comparative study of one to three major continental authors.
Letter grade only (A-F). May be repeated to maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

A. Nobel Prize Laureates
Prerequisite: Consent of instructor.

550. Selected Topics - Comparative World Literature (3)
Prerequisite: CWL 501 or consent of instructor.
Special studies of movements, figures and relationships in world literature, or between world literature and other disciplines.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

552./452. Selected Topics - Mythology (3)
Prerequisites: One course in literature or consent of instructor.
Interrelation of two or more mythologies, mythological themes or theories of mythology. This class will feature a different area of an interdisciplinary or comparative nature in the study of mythology each semester.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

553./453. Fairy Tales (3)
Prerequisite: One course in literature or consent of instructor.
Study of fairy tale as a unique literary genre and art form. Class will apply contemporary theory to tales and identify psychological, religious, cultural, and alchemical patterns and symbols that manifest the realization of identity and illustrate creative processes.
Letter grade only (A-F).

561./461. Selected Topics - Contemporary Literary Criticism (3)
Prerequisite: Two upper-division literature courses or consent of instructor.
In-depth study of a particular critic or movement in contemporary literary theory.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.
Department Chair: Burkhard Englert
Department Office: Engineering & Computer Sciences (ECS) 552
Telephone: (562) 985-4285
Website: http://www.csulb.edu/colleges/coe/cecs
Faculty: Mehrdad Aliasgari, Shadnaz Asgari, Anastasios Chassiakos, Michael Chelian, Todd Ebert, Burkhard Englert, Bo Fu, Darin Goldstein, Min He, Michael Hoffman, Ken James, Tom Johnson, Shui Lam, Tracy Bradley Maples, Alvaro Monge, Frank Murgolo, Thinh Nguyen (Emeritus), Birgit Penzenstadler, Oscar Morales Ponce, Xiaolong Wu
Undergraduate Advisors: Michael Chelian, Alvaro Monge
Graduate Advisor: Tom Johnson
General Education Advising: Academic Advising - Horn Center
Minor and Certificate Advisor: Michael Chelian, Alvaro Monge
Administrative Support Coordinator: Robin Ikemi
Administrative Support Assistant: Karyl Anthony
Students desiring detailed information should contact the department for referral to one of the faculty advisors.

Career Possibilities
Computer Engineer • Software Engineer • Systems Analyst • Hand-held Appliance Programmer • Web Application Developer • Mainframe Programmer • Applications Programmer • LAN/WAN Administrator • Systems Administrator • Computer Service Representative • Database Administrator • Technical Services Manager • Telecommunications Analyst (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

ABET Accreditation
The Bachelor of Science in Computer Engineering is accredited by the Engineering Accreditation Commission and the Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Advisory Board
The Department of Computer Engineering and Computer Science is supported by an Advisory Board composed of engineers, computer scientists, and business executives in the Southern California area. This liaison helps the department keep its curricula responsive to the needs of the community.

Undergraduate Degree Programs
The degree in Computer Engineering focuses on computer hardware (design, construction, and operation of computer systems). The Computer Science degree places more emphasis on computer software (databases and user development). The high school student planning to enter either program is advised to pursue a strong program in science and mathematics.

Students will receive a comprehensive education in computer engineering and/or computer science, as well as the sciences and humanities, and will be able to communicate effectively. They will be able to design systems, components or processes that meet performance, cost, time, safety, and quality requirements. They will understand professional responsibilities and will be able to analyze the social and ethical implications of their work.

Undergraduate Programs

Bachelor of Science in Computer Engineering (120 units)

This program provides students with a strong background in mathematics, physics, and engineering science. Courses, especially those in the junior and senior years, emphasize an open-ended, design-oriented approach to solving engineering problems. Teamwork, communication skills, and an interdisciplinary approach to problem solving are integrated into the senior computer engineering design courses.

Program Educational Objectives
After graduation and engaging in the profession of Computer Engineering for a few years, our graduates will have:
• become a part of California's high technology workforce, and made significant contributions to Computer Engineering through the research, design and development of a wide range of embedded systems and system-on-chip applications.
• helped further the state's economic growth by developing innovative ideas, and translating them into commercial products that benefit society.
• functioned effectively as team members and/or leaders in multidisciplinary and multicultural environments.
• recognized the societal and global context of their work and understood professional and ethical responsibilities.
• continued the pursuit of lifelong learning through such activities as graduate school, distance education, professional training and membership in professional societies and been able to adapt to new engineering tools.

Major Declaration
Freshmen admission to engineering majors is to a ‘pre-major’ status (i.e., Pre-Computer Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student’s ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Computer Engineering must also
Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

Lower Division:

Take all of the following courses:

CECS 100 Critical Thinking in the Digital Information Age (3)
Prerequisite/Corequisite: ENGL 100 or its equivalent all with a grade of "C" or better.
CECS 105 Introduction to Computer Engineering and Computer Science (1)
Prerequisites: None.
CECS 174 Introduction to Programming and Problem Solving (3)
Prerequisite: CECS 100 and MATH 113 (or equivalent) all with a grade of "C" or better.
CECS 201 Computer Logic Design I (3)
Prerequisite: MATH 113 or equivalent all with a grade of "C" or better.
CECS 211 Principles of Computer Engineering I (3)
Prerequisite: MATH 122 with a grade of "C" or better.
CECS 228 Discrete Structures With Computing Applications I (3)
Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.
CECS 229 Discrete Structures With Computing Applications II (3)
Prerequisites: MATH 123 and CECS 228 both with a grade of "C" or better.
CECS 262 Introduction to Embedded System Programming (3)
Prerequisites: CECS 174 and CECS 201 all with a grade of "C" or better.
CECS 271 Introduction to Numerical Methods (3)
Prerequisites: CECS 229 or MATH 247 with a grade of "C" or better.
CECS 275 Programming and Structures in C++ (3)
Prerequisites: CECS 174 or equivalent with a grade of "C" or better.

Take one of the following choices:

PHYS 151 Mechanics and Heat (4)
Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.
PHYS 152 Electricity and Magnetism (4)
Prerequisites: PHYS 151 with a grade of "C" or better.
EE 210L Electro-Magnetic Foundations in EE Lab (1)

A Science Elective – Take four units of approved elective to be selected from:

BIO 200, PHYS 254 and PHYS 255, CHEM 111A

Upper Division:

Take all of the following courses:

CECS 301 Computer Logic Design II (3)
Prerequisites: CECS 174, CECS 201 all with a grade of "C" or better.
CECS 311 Principles of Computer Engineering II (3)
Prerequisites: CECS 201 and CECS 211 all with a grade of "C" or better.
CECS 326 Operating Systems (3)
Prerequisites: CECS 275 or CECS 282 and CECS 341 or CECS 346 all with a grade of "C" or better.
CECS 346 Microprocessors and Controllers I (3)
Prerequisites: CECS 211 and CECS 262 all with a grade of "C" or better.
CECS 347 Microprocessors and Controllers II (3)
Prerequisites: CECS 311, and CECS 346 all with a grade of "C" or better.
CECS 360 Integrated Circuit Design Software (3)
Prerequisites: CECS 301 and CECS 311 both with a grade of "C" or better.
CECS 440 Computer Architecture (3)
Prerequisites: CECS 346 with a grade of "C" or better.
CECS 447 Microprocessors and Controllers III (3)
Prerequisite: CECS 347 with a grade of "C" or better.
CECS 460 System on Chip Design (3)
Prerequisite: CECS 360 with a grade of "C" or better.
CECS 463 System on Chip Applications (3)
Prerequisite: CECS 360 with a grade of "C" or better.
CECS 490A Computer Engineering Senior Project I (3)
Prerequisites: CECS 347 with a grade of "C" or better, senior standing.
CECS 490B Computer Engineering Senior Project II (3)
Prerequisites: CECS 490A with a grade of "C" or better and consent of instructor.
EE 380 Probability, Statistics and Stochastic Modeling (3)
Prerequisites: MATH 123; (EE 202 or CECS 271 or CECS 274 or CECS 275) all with a grade of "C" or better.

Take six units of approved elective to be selected from:

CECS 343, CECS 406, CECS 451, CECS 461, CECS 474, CECS 475, CECS 497; EE 386, EE 486; CE 406;
Bachelor of Science in Computer Science (120 units)

This degree is designed to prepare graduates for a variety of professional careers in the computer field. The curriculum is designed to provide a balance between the theoretical and practical aspects of computer science. Extensive laboratory time is required for these courses, and design and analysis experiences are emphasized.

Program Educational Objectives

Our students following graduation will be able
• to enter California's high technology workforce, and make significant contributions through the research, design and development of software and networked computer systems.
• to help further the state's economic growth by developing innovative ideas, and translating them into commercial products that benefit society.
• to function effectively as a team member and/or leader in multidisciplinary and multicultural environments.
• to recognize the societal and global context of their work and to understand professional and ethical responsibilities.
• to pursue lifelong learning through such activities as graduate school, distance education, professional training and membership in professional societies and to be able to adapt to new engineering tools.

Major Declaration

Freshmen admission to engineering majors is to a 'pre-major' status (i.e., Pre-Computer Science). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student's ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Computer Science must also meet similar major specific requirements. To become fully admitted into the Computer Science major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower-Division Major Requirements:
MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics & Heat)
General Education Foundations Courses:
Written and Oral Communication

Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

Lower Division:

Take all of the following courses:
CECS 100 Critical Thinking in the Digital Information Age (3)
  Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
CECS 105 Introduction to Computer Engineering and Computer Science (1)
  Prerequisites: None.
CECS 174 Introduction to Programming and Problem Solving (3)
  Prerequisite: CECS 100 and MATH 113 (or equivalent) all with a grade of "C" or better.
CECS 225 Digital Logic and Assembly Programming (3)
  Prerequisite: CECS 174 or equivalent all with a grade of "C" or better.
CECS 228 Discrete Structures With Computing Applications I (3)
  Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.
CECS 229 Discrete Structures with Computing Applications II (3)
  Prerequisites: MATH 123 and CECS 228 both with a grade of "C" or better.
CECS 274 Object Oriented Programming and Data Structures (3)
  Prerequisite: CECS 174 with a grade of "C" or better.
CECS 277 Object Oriented Application Development (3)
  Prerequisite: CECS 274 with a grade of "C" or better.
CECS 282 C++ for Java Programmers (3)
  Prerequisite: CECS 274 with a grade of "C" or better.
ENGR 101 Intro to the Engineering Profession (1)
  Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
ENGR 102 Academic Success Skills (1)
  Prerequisite: ENGR 101 with a grade of "C" or better.
MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
  Prerequisite: A grade of "C" or better in MATH 122.

Take a minimum of 12 units of approved science-electives to include a two-semester science sequence chosen from the following groups of courses:
PHYS 151 Mechanics and Heat (4)  
Prerequisite/Corequisite: MATH 122.

PHYS 152 Electricity and Magnetism (4)  
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

or

PHYS 151 Mechanics and Heat (4)  
Prerequisite/Corequisite: MATH 122.

EE 210 Electro-Magnetic Foundations in EE (3)  
Prerequisite: PHYS 151 with a grade of "C" or better.  
Corequisites: MATH 123, EE 210L.

EE 210L Electro-Magnetic Foundations in EE Lab (1)  

or

CHEM 111A General Chemistry (5)  
Prerequisites: A passing score on the Chemistry Placement Examination.  
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)  
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

Remaining units to be chosen from the following:

BIOL 153, 200, 205, 207.

Upper Division:

Take all of the following courses:

CECS 323 Database Fundamentals (3)  
Prerequisites: CECS 228 and (CECS 277 or CECS 282) all with a grade of "C" or better.

CECS 326 Operating Systems (3)  
Prerequisites: CECS 275 or CECS 282 and CECS 341 or CECS 346 all with a grade of "C" or better.

CECS 327 Introduction to Networks and Distributed Computing (3)  
Prerequisite: CECS 326 with a grade of "C" or better.

CECS 328 Data Structures and Algorithms (3)  
Prerequisite: CECS 228 with a grade of "C" or better; Corequisite: CECS 277.

CECS 341 Computer Architecture and Organization (3)  
Prerequisites: CECS 225 or CECS 285 with a grade of "C" or better.

CECS 343 Introduction to Software Engineering (3)  
Prerequisites: CECS 277, CECS 282, or CECS 275 all with a grade of "C" or better.

CECS 378 Introduction to Computer Security Principles (3)  
Prerequisites: CECS 229 and (CECS 274 or CECS 275) all with a grade of C or better.

EE 380 Probability, Statistics and Stochastic Modeling (3)  
Prerequisites: MATH 123; (EE 202 or CECS 271 or CECS 274 or CECS 275) all with a grade of "C" or better.

ENGR 350 Computers, Ethics and Society (3)  
Prerequisites: 3 units from GE Category A.1 (Writing) and 3 units from GE Category D (Social and Behavioral Science).

Take one course from the following:

CEM 310 Communications in Engineering Profession (3)  
Prerequisites: ENGL 100, COMM 110 all with a grade of "C" or better and Senior standing.

ENGL 317 Technical Writing (3)  
Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take three units of study in formal languages and computation to be chosen from the following courses:

CECS 424, CECS 444

Take 12 units of upper division courses chosen from:

Take three units of core electives chosen from the following: CECS 419, CECS 424, CECS 428, CECS 429, CECS 444, CECS 445, CECS 446, CECS 449, CECS 451, CECS 474, CECS 478, MATH 323

Take three units of applied electives to be chosen from the following: CECS 453, CECS 455, CECS 470, CECS 475, CECS 476, CECS 497

Take 6 units of a two-semester capstone senior project sequence chosen from the following groups of courses:

- CECS 491A and CECS 491B, or
- CECS 492A and CECS 492B, or
- CECS 493A and CECS 493B

A grade of "C" or better is required in the following courses:

BIOL 153, BIOL 200, BIOL 205, BIOL 207; CEM 310; CHEM 111A, CHEM 111B; CECS 100, CECS 105, CECS 174, CECS 201, CECS 225, CECS 228, CECS 229, CECS 274, CECS 277, CECS 282, CECS 323, CECS 326, CECS 327, CECS 328, CECS 341, CECS 343, CECS 378, CECS 419, CECS 424, CECS 428, CECS 429, CECS 444, CECS 445, CECS 448, CECS 449, CECS 451, CECS 453, CECS 455, CECS 470, CECS 474, CECS 475, CECS 476, CECS 491A, CECS 491B, CECS 492A, CECS 492B, CECS 493A, CECS 493B, CECS 497; EE 210 and EE 210L, EE 380; ENGL 317; ENGR 101, ENGR 102, ENGR 350; MATH 122, MATH 123, MATH 222, MATH 224, MATH 233, MATH 247, MATH 380; PHYS 151, PHYS 152.

Bachelor of Science in Engineering Technology

Technology and Engineering Education Option

For requirements, see the description in the Engineering Technology Programs section of this catalog.

Minor in Computer Science

Requirements

A minimum of 21 units.

Take all of the following:

CECS 174 Introduction to Programming and Problem Solving (3)  
**"C" or better required.  
Prerequisite: CECS 100 and MATH 113 (or equivalent) all with a grade of "C" or better.

CECS 228 Discrete Structures with Computing Applications (3)  
**"C" or better required.  
Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.

CECS 274 Object Oriented Programming and Data Structures (3)  
**"C" or better required.  
Prerequisite: CECS 174 all with a grade of "C" or better.

CECS 323 Database Fundamentals (3)  
Prerequisites: CECS 228 and (CECS 277 or CECS 282) all with a grade of "C" or better.
Take one of the following courses:
CECS 277 Object Oriented Application Development (3)
**“C” or better required.
Prerequisite: CECS 274 with a grade of “C” or better.
CECS 282 C++ for Java Programmers
**“C” or better required.
Prerequisite: CECS 274 with a grade of “C” or better.
Take two courses selected from the following:
CECS 328, CECS 343, CECS 419, CECS 428, CECS 445, CECS 451, CECS 455, CECS 470, CECS 475, CECS 478, CECS 497

Minor in Web Technologies and Applications
Open to all majors. The minor is conferred concurrently with the BS/BA degree. Students will learn to create a robust, usable, and accessible website.

Requirements
A minimum of 18 units as specified below.
Complete the 12 core units:
CECS 100 Critical Thinking in the Digital Information Age (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
CECS 110 Beginning Web Design (3)
**“C” or better required.
Prerequisites: None.
CECS 200 Intermediate Web Design (3)
**“C” or better required.
Prerequisite: CECS 110 with a grade of “C” or better.
CECS 300 Design of Dynamic Web Sites (3)
Prerequisite: CECS 200 with a grade of “C” or better.
Complete 6 units from the following list of electives:
ART 366; CECS 410, CECS 412, ENGR 350; ETEC 435; FEA 315; IS 380, IS 445, IS 484; JOUR 305, JOUR 340; MKTG 430, MKTG 437; PSY 327

Minor in Computer Science Applications
This minor is not open to students majoring in Computer Science or Computer Engineering.
This minor is designed to prepare students to write small programs and to maintain and upgrade PC software and hardware as well as understand how to set up a local area network. In addition it prepares students to be able to design and implement web applications.

Requirements
Completion of 18 units.
Complete the 12 core units:
CECS 110 Beginning Web Design (3)
**“C” or better required.
Prerequisites: None.
CECS 174 Intro to Programming & Problem Solving (3)
Prerequisite: CECS 100 and MATH 113 (or equivalent) all with a grade of “C” or better.
CECS 200 Intermediate Web Design (3)
Prerequisite: CECS 110 with a grade of “C” or better.

Certificate in Web Technologies and Applications
Open to all majors except those with or seeking a B.S. Engineering Technology, Option in Technology and Engineering Education. The certificate is conferred as a post-baccalaureate certificate or concurrently with the BS/BA degree.
This certificate will prepare students to work with a variety of technologies including computers and related technologies and the proper setup and operation of equipment along with valuable troubleshooting skills. Students will gain an understanding of the system design process and learn to acquire and evaluate information from the internet and to communicate information via the internet including ethical issues. They will learn to create a robust, usable, and accessible website.
Please be aware that this program is not eligible for Financial Aid unless pursued concurrently with a degree program.

Requirements
A minimum of 24 units as specified below
Complete the 18 core units:
CECS 100 Critical Thinking in the Digital Information Age (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1)
CECS 110 Beginning Web Design (3)
**“C” or better required.
Prerequisites: None.
CECS 200 Intermediate Web Design (3)
**“C” or better required.
Prerequisite: CECS 110 with a grade of “C” or better.
CECS 300 Design of Dynamic Web Sites (3)
Prerequisite: CECS 200 with a grade of “C” or better.
Complete 6 units from the following list of electives:
ART 366; CECS 323, CECS 470; ENGR 350; ETEC 435.

Graduate Programs

Mission
The mission of the graduate program in Computer Engineering and Computer Science at CSULB is to provide a high-quality educational experience and the technical specialization required to become successful leaders in industry. The program also prepares the students to pursue advanced degrees if they so desire. The graduate program
involves advanced courses in analysis and design in computer software and hardware. The students may choose to do a thesis or take a comprehensive examination as the culmination of their program.

Program Objectives

Graduates of the MS program will:
1. have technical competency in their field of study.
2. have technical knowledge and skills needed to conduct independent and/or innovative research.
3. keep current with state of the art technologies and advancements in their area.

Master of Science in Computer Science

Admission Procedures

To be considered for admission the graduate applicant must have earned a bachelor's degree in computer engineering, computer science or sufficient background in computer engineering or computer science from a college or university with a minimum grade point average (GPA) of 2.7 in the last 60 semester or 90 quarter upper division major units attempted. The general Graduate Record Examination (GRE) is strongly recommended. The student should apply online at www.csumentor.edu. Do not send an application to the Department. International students should apply online at CSU Mentor.

Requirements

All deficiencies must be removed before attempting graduate-level courses.

Failure to attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) during the first semester in the program will prevent registration in engineering courses in subsequent semesters.

Advancement to Candidacy

Students applying for advancement to candidacy must:
1. have completed all undergraduate deficiencies with grades of "C" or better;
2. have attained an overall grade point average (GPA) of 3.0;
3. have completed at least 9 units of required courses applicable to the degree with a GPA of at least 3.0 for the completed units;
4. have fulfilled the Graduation Writing Assessment Requirement (GWAR);
5. and have their plans of studies approved by the CECS department graduate advisor.

Option in Computer Engineering

This option offers advanced study in the theory, analysis, design and applications of both computer hardware and software.

Requirements

Students should meet with the Adviser at the beginning of the first semester and make a tentative plan of study. The detailed list of required and allowed elective courses for the option is available from the Web site of the Graduate Program Adviser.

1. Course Option
   A. 9 units of required courses specified for the area of concentration;
   B. 21 units from allowed electives for the concentration (no more than 9 units may be from the 400 level courses);
   C. Comprehensive examination covered the following required courses: CECS 530, CECS 532, and CECS 561.

2. Thesis Option: (Successful completion of a thesis provides a unifying culmination to the program, and an enhanced resume for future industrial or academic endeavors)
   A. 9 units of required courses specified for the area of concentration;
   B. 15 units from allowed electives for the concentration (No more than 9 units may be from the 400 level courses.);
   C. 6 units of thesis with written report and oral presentation approved by the thesis committee. At least 3 units must be taken from CECS 698 and the remaining 3 units may be taken from either CECS 697 or CECS 698.

Option in Computer Science

This option offers advanced study in software development and engineering, networking, operating systems, distributed computing, artificial intelligence, security, and analysis of algorithms.

Requirements

There are two areas of concentration:
1. Advanced Systems
2. Software Development.

Students should meet with the Adviser at the beginning of the first semester and make a tentative plan of study. The detailed list of required and allowed elective courses for the two concentrations are available from the Web site of the Graduate Program Adviser.

Advanced Systems Concentration

1. Comprehensive Exam Option:
   A. 15 units of required courses specified for the area of concentration chosen;
   B. 15 units from allowed electives for the concentration (No more than 9 units may be from the 400 level courses.);
   C. Comprehensive examination covering the following required courses: CECS 524, CECS 528 and CECS 543.

2. Thesis Option: (Successful completion of a thesis provides a unifying culmination to the program, and an enhanced resume for future industrial or academic endeavors)
   A. 15 units of required courses specified for the area of concentration chosen;
   B. 9 units from allowed electives for the concentration (No more than 9 units may be from the 400 level
courses.);
C.  6 units of thesis with written report and oral presentation approved by the thesis committee. At least 3 units must be taken from CECS 698 and the remaining 3 units may be taken from either CECS 697 or CECS 698.

Software Development Concentration
1. Comprehensive Exam Option:
   A. 18 units of required courses specified for the area of concentration;
   B. 12 units from allowed electives for the concentration (No more than 9 units may be from the 400 level courses.);
   C. Comprehensive examination covering the following required courses: CECS 524, CECS 528 and CECS 543.
2. Thesis Option: (Successful completion of a thesis provides a unifying culmination to the program, and an enhanced resume for future industrial or academic endeavors)
   A. 18 units of required courses specified for the area of concentration chosen;
   B. 6 units from allowed electives for the concentration (No more than 9 units may be from the 400 level courses.);
   C.  6 units of thesis with written report and oral presentation approved by the thesis committee. At least 3 units must be taken from CECS 698 and the remaining 3 units may be taken from either CECS 697 or CECS 698.

Computer Engineering and Computer Science Courses (CECS)

LOWER DIVISION

100. Critical Thinking in the Digital Information Age (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
Help students develop critical thinking skills using technical software. Main topics include: identifying engineering issues for investigation, developing planning and problem solving strategies, locating pertinent information and examples, critically analyzing these sources, forming and testing hypotheses, synthesizing and organizing results for effective communication, and developing transferable problem solving skills.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

105. Introduction to Computer Engineering and Computer Science (1)
Introduction to the fields of computer engineering and computer science. Current and future trends and challenges in various fields of computing. Social, ethical and economical issues related to computing technology. Exploration of career and professional development opportunities.
(Lecture 1 hour) Letter grade only (A-F).

110. Beginning Web Design (3)
Introduction to HTML and CSS using modern tools, following the W3C guidelines for coding. Web sites designed with usability and accessibility principles implemented. Overview of graphics, video, sound, JavaScript and Dreamweaver.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

174. Introduction to Programming and Problem Solving (3)
Prerequisite: CECS 100 and MATH 113 (or equivalent) all with a grade of "C" or better.
Introduction to basic concepts of computer science and fundamental techniques for solving problems using the Python programming language. Variables, data types, conditional statements, loops and arrays. Programming style. Applications to numerical and non-numerical problems.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

200. Intermediate Web Design (3)
Prerequisite: CECS 110 with a grade of "C" or better.
Intermediate HTML and CSS using Dreamweaver, following the W3C guidelines for coding. Web sites designed with usability and accessibility principles implemented.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

201. Computer Logic Design I (3)
Prerequisite: MATH 113 or equivalent all with a grade of "C" or better.
Basic topics in combinational and sequential switching circuits with applications to the design of digital devices. Introduction to Electronic Design Automation (EDA) tools. Laboratory projects with Field Programmable Gate Arrays (FPGA).
(Lecture 2 hours, lab 3 hours) Letter grade only (A-F).

202. The Digital Information Age (3)
Prerequisite: GE Foundation requirements.
The introduction and use of common-place digital and electronic devices and how this technology affects our society. Topics include advances in 3D imaging, 3D printing, Processors, Memory, Security and Privacy.
(Lecture 3 hours) Letter grade only (A-F).

211. Principles of Computer Engineering I (3)
Prerequisite: MATH 122 with a grade of "C" or better.
Basic principles of analysis and design of computer-based circuits. Application of transistors, logic families, digital, devices in computer and embedded processor interfacing, importance of phasors and the complex plane. Basic DC/AC circuit fundamentals. Laboratory safety.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

225. Digital Logic and Assembly Programming (3)
Prerequisite: CECS 174 or equivalent with a grade of "C" or better.
An introductory course in Digital Logic and Assembly Programming covering number representation, digital codes, Boolean Algebra, combinatorial logic design, sequential logic design, programmable logic devices, internal organization of microprocessor and microcontroller systems and programming in assembly language.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

228. Discrete Structures with Computing Applications (3)
Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.
An introduction to discrete mathematics with applications towards computing. Topics include sets, functions, logic, relations, graphs, trees, recursion, combinatorics, and mathematical reasoning.
Letter grade only (A-F). (Lecture 2 hours, laboratory/problem session 3 hours). Same course as CECS 228H. Not open for credit to students with credit in CECS 228H.
228H. Discrete Structures with Computing Applications (3)
Prerequisites: CECS 174 and MATH 113 or equivalent all with a grade of "C" or better.
An introduction to discrete mathematics with applications towards computing. Topics include sets, functions, logic, relations, graphs, trees, recursion, combinatorics, and mathematical reasoning.
Letter grade only (A-F). CECS 228H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 228. (Lecture 2 hours, laboratory/problem session 3 hours)

229. Discrete Structures with Computing Applications II (3)
Prerequisites: MATH 123 and CECS 228 both with a Grade of "C" or better
This is the second course in a two-course sequence in computing applications of discrete structures. Topics include applications of computer arithmetic and matrices in computer systems. Programming assignments in Python will be provided.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours). Same course as CECS 229H. Not open for credit to students with credit in CECS 229H.

229H. Discrete Structures with Computing Applications II (3)
Prerequisites: MATH 123 and CECS 228 both with a Grade of "C" or better
This is the second course in a two-course sequence in computing applications of discrete structures. Topics include applications of computer arithmetic and matrices in computer systems. Programming assignments in Python will be provided.
Letter grade only (A-F). CECS 229H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 229.

262. Introduction to Embedded System Programming (3)
Prerequisites: CECS 174 and CECS 201 all with a grade of "C" or better.
Introduction to embedded system architecture, memory organization and programming using C. Interfacing with external I/O devices, Use of internal special function registers. Development tools and extended C instructions unique to embedded systems. Course will be taught using an embedded processor development board.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

271. Introduction to Numerical Methods (3)
Prerequisites: CECS 229 or MATH 247 with a grade of "C" or better.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

274. Object Oriented Programming and Data Structures (3)
Prerequisite: CECS 174 with a grade of "C" or better.
Disciplined methods of design, coding and testing using the Java programming language. Data abstraction, object-oriented design. Introduction to data structures (linked lists, stacks, queues and trees.) Recursion. Sorting and searching.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours). Same course as CECS 274H. Not open for credit to students with credit in CECS 274H.

274H. Object Oriented Programming and Data Structures (3)
Prerequisite: CECS 174 with a grade of "C" or better.
Disciplined methods of design, coding and testing using the Java programming language. Data abstraction, object-oriented design. Introduction to data structures (linked lists, stacks, queues and trees.) Recursion. Sorting and searching.
Letter grade only (A-F). CECS 274H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 274. (Lecture 2 hours, laboratory 3 hours)

275. Programming and Data Structures in C++ (3)
Prerequisite: CECS 174 or equivalent with a grade of "C" or better.
Disciplined methods of design, coding and testing using the C++ programming language. Data abstraction and class design. Introduction to data structures (linked lists, stacks, queues and trees.) Recursion. Sorting and searching.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

277. Object Oriented Application Development (3)
Prerequisite: CECS 274 with a grade of "C" or better.
Advanced introduction to the fundamentals of computer science and software engineering methodology. Advanced programming techniques and design methodology typically used in large programming projects using the Java programming language.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

282. C++ for Java Programmers (3)
Prerequisite: CECS 274 with a grade of "C" or better.
Structured and Object Oriented Programming in C++. Common features and differences between Java and C++. Pointers, references, and memory management, stream I/O, classes, operator overloading, exception handling, STL.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 282H. Not open for credit to students with credit in CECS 282H.

282H. C++ for Java Programmers (3)
Prerequisite: CECS 274 with a grade of "C" or better.
Structured and Object Oriented Programming in C++. Common features and differences between Java and C++. Pointers, references, and memory management, stream I/O, classes, operator overloading, exception handling, STL.
Letter grade only (A-F). CECS 282H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 282. (Lecture 2 hours, laboratory 3 hours)

UPPER DIVISION

300. Design of Dynamic Web Sites (3)
Prerequisite: CECS 200 with a grade of "C" or better.
Dynamic Web design using modern tools. Creation of domains, using hosting services and content management systems. Website portability, usability and accessibility.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

301. Computer Logic Design II (3)
Prerequisites: CECS 174, CECS 201 all with a grade of "C" or better.
Sequential logic emphasizing Finite State Machine design & analysis, timing analysis of sequential logic, Introduction to Data Path, Control and Memory. Use of Electronic Design Automation (EDA) tools for design, simulation, verification. Laboratory projects with Field Programmable Gate Arrays (FPGAs).
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 301H. Not open for credit to students with credit in CECS 301H.
301H. Computer Logic Design II (3)
Prerequisites: CECS 174, CECS 201 all with a grade of "C" or better.
Sequential logic emphasizing Finite State Machine design & analysis, timing analysis of sequential logic. Introduction to Data Path, Control and Memory, Use of Electronic Design Automation (EDA) tools for design, simulation, verification. Laboratory projects with Field Programmable Gate Arrays (FPGA's). (Lecture 2 hours, laboratory 3 hours)
Letter grade only (A-F). CECS 301H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 301. (Lecture 2 hours, laboratory 3 hours)

311. Principles of Computer Engineering II (3)
Prerequisites: CECS 201 and CECS 211 all with a grade of "C" or better.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

323. Database Fundamentals (3)
Prerequisites: CECS 228 and (CECS 277 or CECS 282) all with a grade of C or better.
Fundamental topics on database management. Topics include entity-relationship models, database design, data definition language, the relational model, data manipulation language, database application programming and normalization.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

326. Operating Systems (3)
Prerequisites: CECS 275 or CECS 282 and CECS 341 or CECS 346 all with a grade of "C" or better.
The structure and functions of operating systems. Interrupt handling, processes and interprocess communication, memory management, resource scheduling, information sharing and protection. Project implementation in C/C++.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

327. Introduction to Networks and Distributed Computing (3)
Prerequisite: CECS 326 with a grade of "C" or better.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 327H. Not open for credit to students with credit in CECS 327H.

327H. Introduction to Networks and Distributed Computing (3)
Prerequisite: CECS 326 with a grade of "C" or better.
Letter grade only (A-F). CECS 327H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 327. (Lecture 2 hours, laboratory 3 hours)

328. Data Structures and Algorithms (3)
Prerequisite: CECS 228 with a grade of "C" or better.
Corequisite: CECS 277.
A broad view of data structures and the structure-preserving operations on them. Abstract data types, algorithms, complexity. Programming projects to exemplify these concepts.
(Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F). Same course as CECS 328H. Not open for credit to students with credit in CECS 328H.

328H. Data Structures and Algorithms (3)
Prerequisite: CECS 228 with a grade of "C" or better.
Corequisite: CECS 277.
A broad view of data structures and the structure-preserving operations on them. Abstract data types, algorithms, complexity. Programming projects to exemplify these concepts.
Letter grade only (A-F). CECS 328H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 328. (Lecture 2 hours, laboratory 3 hours)

341. Computer Architecture and Organization (3)
Prerequisites: CECS 225 or CECS 285 with a grade of "C" or better.
(Lecture 2 hours, laboratory, 3 hours) Letter grade only (A-F).

343. Introduction to Software Engineering (3)
Prerequisites: CECS 277, CECS 282, or CECS 275 all with a grade of "C" or better.
Principles of software engineering, UML, modeling large software systems, requirements elicitation, object oriented analysis and design using UML, introduction to design patterns, implementation of large systems, software testing, project management, the software lifecycle. Semester long programming project.
Letter grade only (A-F). (Lecture 2 hours, lab 3 hours)

346. Microprocessors and Controllers I (3)
Prerequisites: CECS 211 and CECS 262 all with a grade of "C" or better.
Intro microprocessor/controller, embedded programming and design. Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming. Introduction to assemblers, linkage editors and loaders. Study of the 8051. Design of microprocessor-based systems.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 346H. Not open for credit to students with credit in CECS 346H.

346H. Microprocessors and Controllers II (3)
Prerequisites: CECS 211 and CECS 262 all with a grade of "C" or better.
Intro microprocessor/controller, embedded programming and design. Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming. Introduction to assemblers, linkage editors and loaders. Study of the 8051. Design of microprocessor-based systems.
Letter grade only (A-F). CECS 346H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 346. (Lecture 2 hours, laboratory 3 hours)
347. Microprocessors and Controllers II (3)
Prerequisites: CECS 311, and CECS 346 all with a grade of "C" or better.
Study of embedded processor applications and interfacing. Embedded systems design, control of external devices, embedded programming in C and assembly. A/D and D/A converters, digital signal processing, motor and LCD controllers. Laboratory implementation of embedded designs and hardware-assisted debugging.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

360. Integrated Circuit Design Software (3)
Prerequisites: CECS 301 and CECS 311 both with a grade of "C" or better.
Introduction to Computer Aided Design tools used in the design and fabrication of integrated circuits. Discussion of the IC fabrication process, the layout and routing of basic gates, transistor level design of gates, synthesis and RTL level design, floor planning, and IC development costs.
(Lecture 2 hours, lab 3 hours) Letter grade only (A-F).

378. Introduction to Computer Security Principles (3)
Prerequisites: CECS 229 and CECS 274 or CECS 275 all with a grade of "C" or better.
An introduction to the fundamentals of cryptography and information and computer security. Basic concepts, theories and protocols in computer security. Basic cryptography, software security, operating system security, database security, network security, human factors, social engineering, digital forensics, privacy and anonymity.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

406. Selected Topics in Computer Science (3)
Prerequisite: Senior standing in the computer science major. Each offering is based upon an area of computer science and technology in which recent advances have been made.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.
(Lecture 2 hours, laboratory 3 hours)

410. Computers and Networks (3)
Prerequisite: Course design assumes familiarity with computers.
Gain practical, hands-on experience in installing hardware and software on a PC. Learn what a computer network is and how it is similar to the telephone network. Learn the parts that make up a computer and a network.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

412. Introduction to Computer Network Architectures (3)
Prerequisite: Familiarity with computers
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

419./519. Theory of Computation (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Finite Automata and regular expressions. Pushdown automata and context-free languages. Turing machines and computability. Computational complexity.
Letter grade only (A-F). Additional projects required for CECS 519.
(Lecture-problems 3 hours)

424. Organization of Programming Languages (3)
Prerequisites: CECS 326 and CECS 328 all with a grade of "C" or better.
Understanding the variety of programming languages and the design trade-offs between current programming language paradigms. Comparison of programming languages in their design, implementation, and run-time supports. Includes programming projects.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 424H. Not open for credit to students with credit in CECS 424H.

424H. Organization of Programming Languages (3)
Prerequisites: CECS 326 and CECS 328 all with a grade of "C" or better.
Understanding the variety of programming languages and the design trade-offs between current programming language paradigms. Comparison of programming languages in their design, implementation, and run-time supports. Includes programming projects.
Letter grade only (A-F). CECS 424H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 424.
(Lecture 2 hours, laboratory 3 hours)

428. Analysis of Algorithms (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Applications of standard combinatorial techniques to applied programming problems. Rigorous analysis of correctness/complexity of algorithms. Advanced graph algorithms are emphasized. Topics include shortest paths on graphs, sorting, string matching, union find problem, divide-and-conquer technique, and weighted-edge problem.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

429./529. Search Engine Technology (3)
Prerequisites: CECS 323 and CECS 328, MATH 380 or EE 380 all with a grade of "C" or better.
Additional projects required for CECS 529. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

440. Computer Architecture (3)
Prerequisites: CECS 346 with a grade of "C" or better.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 440H. Not open for credit to students with credit in CECS 440H.

440H. Computer Architecture (3)
Prerequisites: CECS 346 with a grade of "C" or better.
Letter grade only (A-F). CECS 440H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 440.
(Lecture 2 hours, laboratory 3 hours)
444. Compiler Construction (3)
Prerequisites: CECS 328 with a grade of "C" or better.
Syntax directed compiler study. Organization of a compiler and overall design: parsing, semantic analysis, optimization and code generation.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

445. Software Design and Architecture (3)
Prerequisites: CECS 343 with a grade of "C" or better and senior standing.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

447. Microprocessors and Controllers III (3)
Prerequisite: CECS 347 with a grade of "C" or better.
Embedded system applications and techniques. Real-time multitasking systems, schedulers, kernels, and operating systems for embedded processors. Advanced I/O technologies - CAN, I2C, Ethernet. Embedded Internet applications. Polling vs. interrupt handling. Lab implementation of embedded designs and hardware-assisted debugging.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

448. User Interface Design (3)
Prerequisite: CECS 343 with a grade of "C" or better or consent of instructor.
Evaluation, design and programming of user interface systems. Fundamentals of human cognition, system characteristics, and the interaction between humans and systems. Usability methods and user/task-centered design. Tools for designing and building user interfaces, with emphasis on rapid applications development.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

449. Computer Graphics (3)
Prerequisites: CECS 328 and CECS 229 or MATH 247 all with a grade of "C" or better.
Introduction to the theory and practice of computer graphics, Graphics systems, 2-D and 3-D modeling, transformations, viewing transformations, projections, rendering techniques.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

451. Artificial Intelligence (3)
Prerequisites: CECS 277 and CECS 328 all with a grade of "C" or better.
Introduction to the history and implementation of artificial intelligence agents. Topics include search, constraint satisfaction, game-playing, logical agents, belief networks, optimal sequential decision systems. Project implementation.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

453. Mobile Application Development (3)
Prerequisite: CECS 328 with a grade of "C" or better or consent of the instructor.
Languages and application programming interfaces for mobile device platforms. Development of thick and thin client applications for mobile devices.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

455. Introduction to Game Programming (3)
Prerequisite: CECS 328 with a grade of "C" or better or consent of instructor.
Introduction to game programming and graphics. "Slow" games. Real-time games with no adversary. Adversarial real-time games in 2-D.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

460. System on Chip Design (3)
Prerequisite: CECS 360 with a grade of "C" or better.
Complete System on Chip (SOC) design flow from design specification to working SOC. Creation of RTL level modules designed for reuse, integration of Intellectual Property (IP) for RTL and physical level IP, IC verification, creation of self-checking test benches for designs.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as CECS 460H. Not open for credit to students with credit in CECS 460H.

460H. System on Chip Design (3)
Prerequisite: CECS 360 with a grade of "C" or better.
Complete System on Chip (SOC) design flow from design specification to working SOC. Creation of RTL level modules designed for reuse, integration of Intellectual Property (IP) for RTL and physical level IP, IC verification, creation of self-checking test benches for designs.
Letter grade only (A-F). CECS 460H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 460.
(Lecture 2 hours, laboratory 3 hours)

461/561. Hardware/Software Co-design (3)
Prerequisite: CECS 341 or CECS 440 all with a grade of "C" or better.
Introduction to top-down methods for hardware/software system-on-chip co-design. Design flow - system specification, software implementation, hardware synthesis, system design, and verification. Process optimization with various design decisions emphasized. Projects/case studies using system-level design methods and tools.
Additional projects required for CECS 561. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

463. System on Chip (SOC) Applications (3)
Prerequisite: CECS 360 with a grade of "C" or better.
System on Chip (SOC) design applications. Study of a variety of signal processing SOC designs and ASIC algorithms. Class projects emphasizing hardware/software integration with use of FPGA/CPLD devices. Design reviews, specification, team design implementation with project planning and tracking for system level design applications.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

470. Web Programming and Accessibility (3)
Prerequisites: CECS 323 and CECS 343 all with a grade of "C" or better.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

474. Computer Network Interoperability (3)
Prerequisite: CECS 326 with a grade of "C" or better.
Overview of computer network theory and practice from a systems perspective. Topics include network infrastructure, local area network (LAN) protocols, wide area network (WAN) protocols, switching technologies, Internet Protocol (IP), Transmission Control Protocol (TCP), network security, and network configuration, design, and performance.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).
475. Application Programming Using .NET (3)
Prerequisite: CECS 343 with a grade of "C" or better.
Introduction to enterprise application development utilizing the .NET environment. Topics include object-oriented design, events, databases, multithreading, web server applications, web services and cloud computing. Individual projects as well as a team project required.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

476. System and Network Administration (3)
Prerequisites: CECS 326 with a grade of "C" or better.
Introduction to the management and administration of Unix systems and TCP/IP networks. Managing users, local and network file systems, electronic mail, print queues. Establishing and managing a network.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

478. Introduction to Computer Security (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Controlling the risk of computer security. Security threats and vulnerabilities in the development and use of computer systems. Tools and controls that can reduce or block these threats. Law, privacy and ethics.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

478H. Introduction to Computer Security (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Controlling the risk of computer security. Security threats and vulnerabilities in the development and use of computer systems. Tools and controls that can reduce or block these threats. Law, privacy and ethics.
Letter grade only (A-F). CECS 478H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in CECS 478H.

490A. Computer Engineering Senior Project I (3)
Prerequisites: CECS 347 with a grade of "C" or better, senior standing.
The first in a two-course capstone senior project in computer engineering that fulfills GE integrative learning. Students work in teams to define a problem, complete a design and provide both a written report and a multimedia presentation at the end of the semester.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

490B. Computer Engineering Senior Project II (3)
Prerequisites: CECS 490A, with a grade of "C" or better and consent of instructor.
Second of a two-semester capstone senior project in computer engineering that fulfills GE integrative learning. Student teams will build, program and verify operation of project started in prior design course. Student teams must submit a written report, give an oral multimedia presentation and provide a working demonstration.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

491A. Software Engineering Project I (3)
Prerequisites: ENGR 350 and CECS 343 all with a grade "C" or better.
First course in a two-course capstone design sequence that fulfills integrative learning. Design of a commercial grade software application including requirements analysis, functional, architectural and detailed design, emphasizing written communication, teamwork and the Object-Oriented Methodology.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

491B. Software Engineering Project II (3)
Prerequisite: CECS 491A with a grade "C" or better.
Second course in a two-course capstone design sequence that fulfills integrative learning. Implementation, testing, packaging and deployment of the system designed in CECS 491A emphasizing written communication, teamwork and the Object-Oriented Methodology.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

492A. Distributed and Cloud Computing Project I (3)
Prerequisites: ENGR 350, CECS 327 and CECS 343 all with a grade "C" or better.
First course in a two-course capstone design sequence. Design of a distributed or cloud computing application. Design experience, including detailed requirement analysis, design decisions, teamwork, written reports and oral presentation.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

492B. Distributed and Cloud Computing Project II (3)
Prerequisite: CECS 492A with a grade "C" or better.
Second course in a two-course capstone design sequence. Implementation of a distributed or cloud computing application. Implementation experience, including detailed documentation, testing and evaluation of the implementation, teamwork, written reports and oral presentation.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

493A. Database Web Application Project I (3)
Prerequisites: CECS 323 and CECS 343 all with a grade "C" or better. Corequisite: ENGR 350.
First of a two-course capstone senior project in computer science that fulfills GE integrative learning. Propose, design, and prototype a data-intensive web application. Object-oriented modeling, analysis and software engineering. Teamwork, written report and oral presentation required.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

493B. Database Web Application Project II (3)
Prerequisite: CECS 493A with a grade "C" or better.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

495. Computational Physiology (3)
Prerequisite: EE 380 with a grade of "C" or better.
This course will introduce students to cardiovascular (heart) and cerebrovascular (brain) systems and signals, and the computational methods to analyze related signals, and detect/predict a physiological event of interest.
Same course as: EE 495. Not open for credit to students with credit in EE 495.
Letter Grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

496. Computer Science Problem Solving (1)
Prerequisites: CECS 274 with a grade of "C" or better and consent of instructor.
Problem solving in Computer Science. Theory necessary to solve computer science problems and the solutions to the problems. Problems studied will involve applications of graph theory, data structures, recursion, and algorithms.
(Lecture 1 hour) May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).
497. Directed Studies (1–3)
Prerequisite: Consent of instructor.
Assigned study in topics in current computer literature or computer-related projects with a final report.
May be repeated to a maximum of 6 units with written consent of the Department Chair.

GRADUATE LEVEL

519./419. Theory of Computation (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Finite Automata and regular expressions. Pushdown automata and context-free languages. Turing machines and computability. Computational complexity.
Additional projects required for CECS 519. (Lecture-problems 3 hours) Letter grade only (A-F).

521./621. Database Architecture (3)
Prerequisites: CECS 328 and CECS 323 or CECS 421 all with a grade of "C" or better.
Relational database design theory—a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization.
Master’s students register in CECS 521 or CECS 621; Ph.D. students register in CECS 621. Additional projects required for CECS 621. (Lecture-problems 3 hours) Letter grade only (A-F).

524./624. Advanced Topics in Programming Languages (3)
Prerequisite: CECS 424 with a grade of "C" or better.
Intensive study of languages of current interest which support object-oriented, client-server, and multimedia applications (e.g. JAVA).
Master’s students register in CECS 524 or CECS 624; Ph.D. students register in CECS 624. Additional projects required for CECS 624. (Lecture-problems 3 hours) Letter grade only (A-F).

526./626. Advanced Operating Systems (3)
Prerequisites: CECS 228 and CECS 326 all with a grade of "C" or better.
Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlock, mutual exclusion, virtual memory, resource management and scheduling.
Master’s students register in CECS 526 or CECS 626; Ph.D. students register in CECS 626. Additional projects required for CECS 626. (Lecture–problems 3 hours) Letter grade only (A-F).

528./628. Advanced Analysis of Algorithms (3)
Prerequisites: CECS 328, MATH 380 or EE 380 all with a grade of "C" or better.
Theoretical analysis of algorithms. Divide and conquer, dynamic programming and greedy algorithms; basic search and traversal techniques including search trees; sorting; matrix manipulations; NP-completeness.
Master’s students register in CECS 528 or CECS 628; Ph.D. students register in CECS 628. Additional projects required for CECS 628. (Lecture–problems 3 hours) Letter grade only (A-F).

529./429. Search Engine Technology (3)
Prerequisites: CECS 323 and CECS 328, MATH 380 or EE 380 all with a grade of "C" or better.
Additional projects required for CECS 529. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

530./630. Advanced Computer Architecture I (3)
Prerequisite: CECS 341 or CECS 440 all with a grade of "C" or better.
Fundamentals of computer architecture. Description of architecture and description languages. Basic computer design and central processor implementation. Memory hierarchy and input/output, Pipelining. Vector processor, multiprocessor systems and dataflow machines.
Master’s students register in CECS 530 or CECS 630; Ph.D. students register in CECS 630. Additional projects required for CECS 630. (Lecture-problems 3 hours) Letter grade only (A-F).

531./631. Advanced Computer Architecture II (3)
Prerequisite: CECS 530 with a grade of "C" or better.
Advanced computer architecture with emphasis on parallel processing. Vector processors and multiprocessor systems. Dataflow computation. RISC/CISC. Hypercube. Parallel software. Applications in artificial intelligence, signal/image processing, neural network and optical computing.
Master’s students register in CECS 531 or CECS 631; Ph.D. students register in CECS 631. Additional projects required for CECS 631. (Lecture–problems 3 hours) Letter grade only (A-F).

532. Memory Design and Implementation (3)
Prerequisite: CECS 341 or CECS 440 all with a grade of "C" or better.
Logic design and operation, physical design and operation, performance characteristics, design trade-offs, energy consumption of modern memory hierarchies, memory errors and error correction.
Letter grade only (A-F). (Lecture-problems 3 hours)

542. Requirements Engineering (3)
Prerequisite: Graduate Standing
This course aims to equip students to develop techniques of software-intensive systems through successful requirements analysis techniques and requirements engineering. Students learn systematic process of developing requirements through cooperative problem analysis, representation, and validation.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours).

543./643. Advanced Software Engineering (3)
Prerequisite: CECS 343 all with a grade of "C" or better.
Study of software engineering as a broad, problem-solving discipline. Includes structured programming and software project management.
Master’s students register in CECS 543 or CECS 643; Ph.D. students register in CECS 643. Additional projects required for CECS 643. (Lecture-problems 3 hours) Letter grade only (A-F).

544./644. Software Testing and Verification (3)
Prerequisite: CECS 543 with a grade of "C" or better.
Testing/verification techniques for software development including black box, white box, incremental, top-down and bottom-up, static and dynamic, performance, regression, thread, and stress testing. Object-oriented software testing with a hierarchical approach. Metrics for test, and verification will be introduced.
Master’s students register in CECS 544 or CECS 644; Ph.D. students register in CECS 644. Additional projects required for CECS 644. (Lecture-problems 3 hours) Letter grade only (A-F).

545./645. Software Architecture (3)
Prerequisite: CECS 543 with a grade of "C" or better.
Includes architectural styles, pipes and filters, data abstraction and object-oriented organization, event-based, implicit invocation, layered systems, repositories, interpreters, process control, distributed processes, domain-specific software & heterogeneous architectures. Component-based design patterns & case studies.
Master’s students register in CECS 545 or CECS 645; Ph.D. students register in CECS 645. Additional projects required for CECS 645. (Lecture-problems 3 hours) Letter grade only (A-F).
546./646. Fault Tolerant Computing Systems (3)
Prerequisite: CECS 341 or CECS 440 with a grade of "C" or better.
Fault tolerant techniques are studied as tools to assure the reliability and continuous availability of computing systems. Case studies of modern fault tolerant systems reviewed. Software fault tolerant systems studied as alternatives to verification and validation approaches to software reliability.
Master’s students register in CECS 546 or CECS 646; Ph.D. students register in CECS 646. Additional projects required for CECS 646. (Lecture–problems 3 hours) Letter grade only (A-F).

547./647. Software Maintenance, Reengineering and Reuse (3)
Prerequisite: CECS 343 or equivalent with a grade of "C" or better.
Introduction to software maintenance, defect management, corrective, adaptive and perfective maintenance. Evolution of legacy software systems. Program comprehension techniques, reverse engineering, restructuring, refactoring of software systems. Software re-engineering, data reverse engineering. Software reuse. Impact analysis, regression testing.
Master's students register in CECS 547 or CECS 647; Ph.D. students register in CECS 647. Additional projects required for CECS 647. (Lecture–problems 3 hours) Letter grade only (A-F).

549./649. Advanced Computer Graphics (3)
Prerequisite: CECS 449 with a grade of "C" or better.
Master’s students register in CECS 549 or CECS 649; Ph.D. students register in CECS 649. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

550./650. Pattern Recognition Using Artificial Intelligence (3)
Prerequisite: CECS 451 with a grade of "C" or better or consent of instructor.
General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rule-based systems and neural networks.
Master’s students register in CECS 550; Ph.D. students register in CECS 650. Additional projects required for CECS 650. (Lecture–problems 2 hours, laboratory 3 hours) Not open for credit to students with credit in CECS 750. Letter grade only (A-F).

551./651. Advanced Artificial Intelligence (3)
Prerequisite: CECS 451 with a grade of "C" or better.
Advanced concepts in artificial intelligence. Topics include knowledge acquisition and representation, fuzzy logic, logical reasoning, multi-sensor integration, Dempster-Shafer’s theory of evidential reasoning, real-time expert systems and neural networks.
Master’s students register in CECS 551 or CECS 651; Ph.D. students register in CECS 651. Additional projects required for CECS 651. (Lecture–problems 3 hours) Letter grade only (A-F).

552. Computer Simulation and Modeling (3)
Prerequisites: EE 380 (or MATH 380) and CECS 326 all with a grade of "C" or better.
Studies of general purpose and special simulation software. Model verification including graphical models Applications in various areas.
Master’s students register in CECS 552 (Lecture–problems 3 hours) Letter grade only (A-F).

553./653. Machine Vision (3)
Prerequisite: Graduate standing in engineering or computer science.
Discussion and laboratory implementation of current research in vision and image understanding. Topics include image formation, early processing, segmentation, relational structures in 2-D and 3-D, motion, stereo, 3-D reconstruction, morphological methods and computer architecture for machine vision.
Master’s students register in CECS 553 or CECS 653; Ph.D. students register in CECS 653. Additional projects required for CECS 653. (Lecture–problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

561./661. Hardware/Software Co-design (3)
Prerequisite: CECS 341 or CECS 440 all with a grade of "C" or better.
Introduction to top-down methods for hardware/software system-on-chip co-design. Design flow – system specification, software implementation, hardware synthesis, system design, and verification. Process optimization with various design decisions emphasized. Projects/case studies using system-level design methods and tools.
Additional projects required for CECS 561. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

570./670. Concurrent Parallel Programming (3)
Prerequisite: CECS 328, or CECS 341, or CECS 440 all with a grade of "C" or better.
Introduction to concurrent and parallel programming for multiprocessing and distributed systems. Computational models and paradigms. Parallel programming languages and programming tools. Portable parallel programming and mapping techniques. Heterogeneous concurrent programming. Concurrent programming on local networks on workstations and personal computers.
Master’s students register in CECS 570 or CECS 670; Ph.D. students register in CECS 670. Additional projects required for CECS 670. (Lecture–problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

571. Fundamentals of Semantic Web technologies (3)
Prerequisite: Graduate Standing
Introduction to key Semantic Web technologies that extend the current Web. Semantic-driven applications, structured data, ontologies, knowledge modeling and engineering, linked data, logic and inference, XML, XML Schema, RDF, RDF(S), OWL (Full, DL, Lite).
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours).

572./672. Advanced Computer Networking (3)
Prerequisite: CECS 474 with a grade of "C" or better
Master’s students register in CECS 572 or CECS 672; Ph.D. students register in CECS 672. Additional projects required for CECS 672. (Lecture–problems 3 hours) Letter grade only (A-F).

574./674. Topics in Distributed Computer Systems (3)
Prerequisite: CECS 526 or CECS 572 or CECS 626 or CECS 672 all with a grade of "C" or better.
Network operating systems vs distributed operating systems, research and design issues of distributed operating systems, resources and resource management in distributed systems, communication security and user authentication.
Master’s students register in CECS 574; Ph.D. students register in CECS 674. Additional projects required for CECS 674. (Lecture–problems 3 hours) Letter grade only (A-F). Not open for credit to students with credit in CECS 673 or CECS 773.
575./675. Object–Oriented Analysis and Design (3)
Prerequisites: CECS 475 and CECS 343 or CECS 543 all with a grade of "C" or better.
Master's students register in CECS 575 or CECS 675; Ph.D. students register in CECS 675. Additional projects required for CECS 675.
(Lecture–problems 3 hours) Letter grade only (A–F).

579. Information Security (3)
Prerequisite: CECS 328 with a grade of "C" or better.
Course Description: Symmetric cryptosystems, stream ciphers, pseudorandom functions, message authentication codes (MACs), collision resistant hash functions, number theory and cryptographic hardness assumptions, public-key encryption (El-Gamal), digital signature schemes
Letter grade only (A–F). (Lecture–problems 3 hours)

590./690. Selected Topics in Computer Science (3)
Prerequisites: Graduate standing and consent of instructor.
Each offering is based on an area in computer science and technology in which recent advances have been made.
Letter grade only (A–F). May be repeated to a maximum of 6 units with consent of department. Topics announced in the Schedule of Classes. Master's students register in CECS 590 or CECS 690; Ph.D. students register in CECS 690. Additional projects required for CECS 690. (Lecture–problems 3 hours)

621./521. Database Architecture (3)
Prerequisites: CECS 328 and CECS 323 (or CECS 421) all with a grade of "C" or better.
Relational database design theory—a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization.
Master's students register in CECS 521 or CECS 621; Ph.D. students register in CECS 621. Additional projects required for CECS 621. (Lecture–problems 3 hours) Letter grade only (A–F).

624./524. Advanced Topics in Programming Languages (3)
Prerequisite: CECS 424 with a grade of "C" or better.
Intensive study of languages of current interest which support object-oriented, client-server, and multimedia applications (e.g. JAVA).
Master's students register in CECS 524 or CECS 624; Ph.D. students register in CECS 624. Additional projects required for CECS 624. (Lecture–problems 3 hours) Letter grade only (A–F).

626./526. Advanced Operating Systems (3)
Prerequisites: CECS 228 and CECS 326 all with a grade of "C" or better.
Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlocks, mutual exclusion, virtual memory, resource management and scheduling.
Master's students register in CECS 526 or CECS 626; Ph.D. students register in CECS 626. Additional projects required for CECS 626. (Lecture–problems 3 hours) Letter grade only (A–F).

628./528. Advanced Analysis of Algorithms (3)
Prerequisites: CECS 328, MATH 380 or EE 380 all with a grade of "C" or better.
Theoretical analysis of algorithms. Divide and conquer, dynamic programming and greedy algorithms; basic search and traversal techniques including search trees; sorting; matrix manipulations; NP–completeness.
Master's students register in CECS 528 or CECS 628; Ph.D. students register in CECS 628. Additional projects required for CECS 628. (Lecture–problems 3 hours) Letter grade only (A–F).

630./530. Advanced Computer Architecture I (3)
Prerequisite: CECS 341 or CECS 440 all with a grade of "C" or better.
Fundamentals of computer architecture. Description of architecture and description languages. Basic computer design and central processor implementation. Memory hierarchy and input/output. Pipelining, Vector processor, multiprocessor systems and datalflow machines.
Master's students register in CECS 530 or CECS 630; Ph.D. students register in CECS 630. Additional projects required for CECS 630. (Lecture–problems 3 hours) Letter grade only (A–F).

631./531. Advanced Computer Architecture II (3)
Prerequisite: CECS 530 with a grade of "C" or better.
Advanced computer architecture with emphasis on parallel processing. Vector processors and multiprocessor systems. Dataflow computation. RISC/CISC. Hypercube. Parallel software. Applications in artificial intelligence, signal/image processing, neural network and optical computing.
Master's students register in CECS 531 or CECS 631; Ph.D. students register in CECS 631. Additional projects required for CECS 631. (Lecture–problems 3 hours) Letter grade only (A–F).

643./543. Advanced Software Engineering (3)
Prerequisite: CECS 343 all with a grade of "C" or better.
Study of software engineering as a broad, problem–solving discipline. Includes structured programming and software project management.
Master's students register in CECS 543 or CECS 643; Ph.D. students register in CECS 643. Additional projects required for CECS 643. (Lecture–problems 3 hours) Letter grade only (A–F).

644./544. Software Testing and Verification (3)
Prerequisite: CECS 530 with a grade of "C" or better.
Various types of software testing and verification techniques for software development including black box, white box, incremental, top-down and bottom-up, static and dynamic, performance, regression, thread, and stress testing. Discussion of object-oriented software testing with a hierarchical approach. Metrics in complexity for testing, test, and verification plan will be introduced. Automatic software testing and some case studies.
Master's students register in CECS 544 or CECS 644; Ph.D. students register in CECS 644. Additional projects required for CECS 644. (Lecture–problems 3 hours) Letter grade only (A–F).

645./545. Software Architecture (3)
Prerequisite: CECS 543 with a grade of "C" or better.
Includes architectural styles, pipes and filters, data abstraction and object-oriented organization, event-based, implicit invocation, layered systems, repositories, interpreters, process control, distributed processes, domain-specific software & heterogeneous architectures. Component-based design patterns & case studies.
Master's students register in CECS 545 or CECS 645; Ph.D. students register in CECS 645. Additional projects required for CECS 645. (Lecture–problems 3 hours) Letter grade only (A–F).
646./546. Fault Tolerant Computing Systems (3)
Prerequisite: CECS 341 or CECS 440 with a grade of "C" or better.
Fault tolerant techniques are studied as tools to assure the reliability and continuous availability of computing systems. Case studies of modern fault tolerant systems reviewed. Software fault tolerant systems studied as alternatives to verification and validation approaches to software reliability.
Master’s students register in CECS 546 or CECS 646; Ph.D. students register in CECS 646. Additional projects required for CECS 646. (Lecture–problems 3 hours) Letter grade only (A-F).

647./547. Software Maintenance, Reengineering and Reuse (3)
Prerequisites: CECS 343 or equivalent all with a grade of "C" or better.
Introduction to software maintenance, defect management, corrective, adaptive and perfective maintenance. Evolution of legacy software systems. Program comprehension techniques, reverse engineering, restructuring, refactoring of software systems. Software re-engineering, data reverse engineering.
Master’s students register in CECS 547 or CECS 647; Ph.D. students register in CECS 647. Additional projects required for CECS 647. (Lecture–problems 3 hours) Letter grade only (A-F).

649./549. Advanced Computer Graphics (3)
Prerequisite: CECS 449 with a grade of "C" or better.
Master’s students register in CECS 549 or CECS 649; Ph.D. students register in CECS 649. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

650./550. Pattern Recognition Using Artificial Intelligence (3)
Prerequisite: CECS 451 with a grade of "C" or better or consent of instructor.
General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rule-based systems and neural networks.
Master’s students register in CECS 550; Ph.D. students register in CECS 650. Additional projects required for Ph.D. students. (Lecture–problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

651./551. Advanced Artificial Intelligence (3)
Prerequisite: CECS 451 with a grade of "C" or better.
Advanced concepts in artificial intelligence. Topics include knowledge acquisition and representation, fuzzy logic, logical reasoning, multi-sensor integration, Dempster-Shafer’s theory of evidential reasoning, real-time expert systems and neural networks.
Master’s students register in CECS 551 or CECS 651; Ph.D. students register in CECS 651. Additional projects required for CECS 651. (Lecture–problems 3 hours) Letter grade only (A-F).

653./553. Machine Vision (3)
Prerequisite: Graduate standing in engineering or computer science.
Discussion and laboratory implementation of current research in vision and image understanding. Topics include image formation, early processing, segmentation, relational structures in 2-D and 3-D, motion, stereo, 3-D reconstruction, morphological methods and computer architecture for machine vision.
Master’s students register in CECS 553 or CECS 653; Ph.D. students register in CECS 653. Additional projects required for CECS 653. (Lecture–problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

670./570. Concurrent Parallel Programming (3)
Prerequisite: CECS 328, or CECS 341, or CECS 440 all with a grade of "C" or better.
Introduction to concurrent and parallel programming for multiprocessor and distributed systems. Computational models and paradigms. Parallel programming languages and programming tools. Portable parallel programming and mapping techniques. Heterogeneous concurrent programming. Concurrent programming on local networks on workstations and personal computers.
Master’s students register in CECS 570 or CECS 670; Ph.D. students register in CECS 670. Additional projects required for CECS 670. (Lecture–problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

672./572. Advanced Computer Networking (3)
Prerequisite: CECS 474 with a grade of "C" or better
Master’s students register in CECS 572 or CECS 672; Ph.D. students register in CECS 672. Additional projects required for CECS 672. (Lecture–problems 3 hours) Letter grade only (A-F).

674./574. Topics in Distributed Computer Systems (3)
Prerequisite: CECS 526 or CECS 572 or CECS 626 or CECS 672 all with a grade of "C" or better.
Network operating systems vs distributed operating systems, research and design issues of distributed operating systems, resources and resource management in distributed systems, communication security and user authentication.
Master’s students register in CECS 574; Ph.D. students register in CECS 674. Additional projects required for CECS 674. (Lecture–problems 3 hours) Letter grade only (A-F). Not open for credit to students with credit in CECS 773.

675./575. Object–Oriented Analysis and Design (3)
Prerequisites: CECS 475 and CECS 543 or CECS 543 all with a grade of "C" or better.
Master’s students register in CECS 575 or CECS 675; Ph.D. students register in CECS 675. Additional projects required for CECS 675. (Lecture–problems 3 hours) Letter grade only (A-F).

690./590. Selected Topics in Computer Science (3)
Prerequisites: Graduate standing and consent of instructor.
Each offering is based on an area in computer science and technology in which recent advances have been made.
Letter grade only (A-F). May be repeated to a maximum of 6 units with consent of department. Topics announced in the Schedule of Classes. Master’s students register in CECS 590 or CECS 690; Ph.D. students register in CECS 690. Additional projects required for CECS 690. (Lecture–problems 3 hours)

694. Seminar in Computer Science (3)
Prerequisite: 6 units of 500- or 600-level CECS courses.
Intensive study of a broad selection of conceptual and theoretical problems in computer science. A written student research project and an oral presentation are required.
Letter grade only (A-F).
697. Directed Research (1-3)
Prerequisite: Classified Graduate standing.
Theoretical and experimental problems in computer science and engineering requiring extensive research. Advancement to candidacy and program GPA of at least 3.0 are required. Graduate advisor and project supervisor must be consulted prior to registration.
Independent Study. Credit/No Credit grading only.

698. Thesis or Industrial Project (3-6)
Prerequisite: Advancement to Candidacy.
Planning, preparation, completion of thesis or equivalent industrial project report on a suitable topic in computer engineering and computer science following the library's prescribed format. Requires consultation with Graduate Advisor and submission of Agreement for Independent Study form each semester.
May be repeated to a maximum of 6 units in the same semester.
CONSUMER AFFAIRS
College of Health and Human Services
Department of Family and Consumer Sciences

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Suzanne Marshall, Nilufer Medora, Wendy Reiboldt, Cheryl Rock,
Roudi Roy, Myunghae Sohn, Richard V. Tuveson, Long Wang,
Jung-Mao (Ronnie) Yeh
Program Director: Peter Kreysa
Baccalaureate Program Coordinator: Richard V. Tuveson
Graduate Coordinator: Virginia Gray
Administrative Support Coordinators: Mikal Lok, Marina Bendersky, Andrew Redmayne
Instructional Support Technician: Bonnie Rice

Career Possibilities
Consumer Advocates on Television and Radio Stations • Litigation Consumer Specialist • Product Safety Advocate
• Credit Counselor • Food and Drug Consumer Specialist • Federal Trade Consumer Specialist • Community Consumer Educator • Consumer Affairs Teacher • Financial Advisor
• Financial Counselor • Product Safety and Health Care Consultants • Customer Service Representative • Housing Counselor • Homeless Coordinator • Property Manager •
Product Researcher (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Arts in Family and Consumer Sciences
This degree offers six options:
• Child Development and Family Studies
• Consumer Affairs
• Family and Consumer Sciences Education
• Family Life Education
• Fashion Design
• Fashion Merchandising
Degree and certificate information and requirements are
listed under each option alphabetically in this catalog.

Bachelor of Science in Dietetics and Food Administration
This degree offers two options:
• Nutrition and Dietetics
• Food Science
Degree and certificate information and requirements are
listed under each option alphabetically in this catalog.

Bachelor of Science in Hospitality Management
Degree and certificate information and requirements are listed
under each option alphabetically in this catalog.

Consumer Affairs
This program focuses on how businesses, government agencies, and community organizations interact with families and consumers.

Option in Consumer Affairs (120 units)
Take one of the following support courses:
PSY 100 General Psychology (3)
Prerequisites/Corequisites: Students who score 147 or above on
the English Placement Test or “C” or better in one of the following
AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP
150 or equivalent.
SOC 100 Principles of Sociology (3)
Prerequisites/Corequisites: A GE Foundation course.
Take one of the following support courses:
ECON 100 Principles of Macroeconomics (3)
Prerequisite: MATH 103 or higher.
ECON 101 Principles of Microeconomics (3)
Prerequisites: MATH 103 or higher.
ECON 300 Fundamentals of Economics (3)
Prerequisites: GE Foundation requirements.
Take one of the following support courses:
SOC 170 Elementary Statistics (4)
Prerequisites: Eligible to take a General Education Mathematics
Course.
STAT 108 Statistics for Everyday Life (3)
Prerequisites: None
Take all of the following major courses:
FCS 299 Intro to Family and Consumer Sciences (1)
Prerequisites: None.
Not open for credit to students with credit in FCSE 299.
CAFF 223 Personal and Family Financial Management (3)
Prerequisites: GE Foundation requirements.
CAFF 226 Consumer Life Skills (3)
Prerequisites: GE Foundation requirements.
CAFF 228 Housing in Global Perspective (3)
Prerequisites: GE Foundation requirements.
CAFF 321 Family and Consumer Resource Management (3)
Prerequisites: GE Foundation requirements, one or more
Exploration courses, and upper division standing.
CAFF 427 Consumer Dynamics (3)
Prerequisites: Students must have scored 11 or higher on the
GWAR Placement Examination or successfully completed the
necessary portfolio course that is a prerequisite for a GWAR
Writing Intensive Capstone.
CAFF 429 Consumer Protection (3)
Prerequisites: Upper Division course in consumer affairs or
consent of instructor.
FCS 499 Professionalism and Leadership in FCS (1)
Prerequisites: FCS 299, CAFF 321, 12 units of upper division
course work in Family and Consumer Sciences. Must be taken in
one of the last two semesters prior to graduation.
Not open for credit to students with credit in FCSE 499.
Take two of the following courses:

**CAFF 307 Crimes against Consumers (3)**
Prerequisite: None.

**CAFF 309 The Consumer in the Legal and Economic Environment (3)**
Prerequisites: GE Foundation requirements; completion of one or more Exploration courses; upper division standing.

**CAFF 322 Family Housing and Urban Community (3)**
Prerequisite: Upper division standing.

**CAFF 420 Personal Finance for the Aging (3)**
Prerequisites: 400-level course in Consumer Affairs or consent of instructor.

**CAFF 422 Housing Policies: Public and Private (3)**
Prerequisite: CAFF 322, upper division standing or consent of instructor.

**CAFF 425 Personal Financial Planning Analysis (3)**
Prerequisites: CAFF 223 or consent of instructor.

**CAFF 426 Family Financial Problems (3)**
Prerequisites: CAFF 223 or consent of instructor.

**CAFF 492C Internship in Consumer Affairs (3)**
Prerequisites: Student must be a Family and Consumer Sciences: Consumer Affairs major; have senior standing; approval of a faculty advisor in Consumer Affairs; or consent of instructor.

**FCS 497 Directed Studies (3)**
Prerequisites: Upper division standing, consent of instructor.

Not open for credit to students with credit in FCSE 497.

Each course on the student's program planner must be completed with a grade of "C" or better. In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Consumer Affairs Area Coordinator.

**Minor in Consumer Affairs**
Fifteen units as approved by a Consumer Affairs faculty advisor. The Minor in Consumer Affairs is available to any non-Consumer Affairs major.

Take two of the following courses:

**CAFF 223 Personal and Family Financial Management (3)**
Prerequisites: GE Foundation requirements.

**CAFF 226 Consumer Life Skills (3)**
Prerequisites: GE Foundation requirements.

**CAFF 228 Housing in Global Perspective (3)**
Prerequisites: GE Foundation requirements.

Take 9 units of Consumer Affairs courses in consultation with an Academic Advisor.

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**LOWER DIVISION**

**223. Personal and Family Financial Management (3)**
Prerequisite: GE Foundation requirements.
A functional approach to personal finance including budget systems, consumer credit, insurance, debt collection system, status obligation, accumulating reserves. Applicable for personal and professional use.

(Lecture-discussion 3 hours)

**226. Consumer Life Skills (3)**
Prerequisite: GE Foundation requirements.
Consumer life skills with an emphasis on practical applications in the marketplace. Includes the history of the consumer movement, consumer rights and responsibilities, financial wellness, consumer debt, consumer behavior, fraud, and consumer redress.

(Lecture-discussion 3 hours)

**228. Housing in Global Perspective (3)**
Prerequisites: GE Foundation requirements.
Family housing options and choices in urban and rural areas throughout the world viewed within the context of history, politics, culture, art, environment, geography, technology and economics.

(Lecture-discussion, 3 hours)

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**UPPER DIVISION**

**307. Crimes against Consumers (3)**
Study of laws and agencies devoted to consumer protection; the investigation of consumer crimes, including product counterfeiting, consumer frauds/scams, false advertising, adulterated food, dangerous drugs and devices, and quackery; and college students, veterans, immigrants, and seniors as consumer crime victims.
Letter grade only (A-F) Same course as CRJU 307. Not open for credit to students with credit in CRJU 307.

**309. The Consumer in the Legal and Economic Environment (3)**
Prerequisites: GE Foundation requirements; completion of one or more Exploration courses; upper division standing.
Incorporates an integrated coverage of the economic, legal, ethical and regulatory environment of consumers in avoiding and resolving disputes regarding fraudulent transactions, financial matters, personal and real property contracts, torts, credit and investment issues, and family relationships. Team taught.

(Lecture-discussion 3 hours) Same course as BLAW 309. Not open for credit to students with credit in FIN 309 or BLAW 309.

**321. Family and Consumer Resource Management (3)**
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
Basic management principles applied to personal and family settings. Examines role of values, goal formation, decision-making, planning, implementing, and evaluation of managerial behavior in diverse family and cultural settings.
Letter grade only (A-F). (Lecture-discussion 3 hours)

**322. Family Housing and the Urban Community (3)**
Prerequisites: Upper-division standing.
Critical analysis of family housing in urban community including aspects of shelter, city and service providers. Sociological, psychological, legislative, economic and technical factors investigated. Special attention given to families of various structures and socioeconomic background.

(Discussion 3 hours)

Prerequisites: GE Foundation requirements, upper division standing, ENGL 100 or GE Composition (Area A1).
An examination and analysis of consumer interaction with rapidly expanding technology. Historical record of Consumers and Technology since 1900. What does the future hold? This is a writing intensive course.
Letter grade only (A-F). (Discussion 3 hours.)
420. Personal Finance for the Aging (3)
Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as GERN 420. Not open for credit to students with credit in GERN 420. (Lecture-discussion 3 hours)

422. Housing Policies: Public and Private (3)
Prerequisites: CAFF 322, upper division standing or consent of instructor.
Federal, state, and local policies, programs and legislation concerning housing and urban development. Analysis of the housing industry and its influence on the consumer market.
Letter grade only (A-F). (Discussion 3 hours)

425. Personal Financial Planning Analysis (3)
Prerequisite: CAFF 223 or consent of instructor.
Analysis and protection of personal and family resources; planning and forecasting goals; development of financial strategies utilizing insurance, investment, tax management, pensions, wills and trusts.
(Lecture-discussion 3 hours)

426. Family Financial Problems (3)
Prerequisite: CAFF 223 or consent of instructor.
Theory and practice in the diagnosis of family financial crises; selecting alternative solutions; constructing practical methods for the prevention of family financial problems.
(Discussion 2 hours, laboratory 3 hours)

427. Consumer Dynamics (3)
Prerequisites: Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examination and analysis of consumer motivation, demand, and behavior. Consumers in the global marketplace. Exploration of individual, family, and household dynamics that influence decision making. This is an intensive writing course.
Letter grade only (A-F).

429. Consumer Protection (3)
Prerequisites: Upper Division course in consumer affairs or consent of instructor.
Concepts of consumer protection with analysis of a myriad of resources available for individuals and families with consumer problems.
(Seminar 3 hours)

492C. Internship in Consumer Affairs (3)
Prerequisite: Student must be a Family and Consumer Sciences: Consumer Affairs major; have senior standing; approval of a faculty advisor in Consumer Affairs; or consent of instructor.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours)
The College of Continuing and Professional Education (CCPE) is one of the eight academic colleges at California State University, Long Beach. CCPE is a self-support, interdisciplinary college that works closely with its university, business, community, and international partners to serve California's workforce. The College provides expanded access to CSULB's exceptional academic programs and educational resources, and offers a diverse range of degrees, professional development certificates, and international education programs. Through the Center for International Education, CCPE creates opportunities for its students to study abroad and brings students from around the globe to CSULB.

The College of Continuing and Professional Education is different from CSULB's other academic colleges because it is interdisciplinary and not limited to one specific subject area, such as arts or science. CCPE's unique position as both an academic college and a community outreach entity means that partnerships and collaborations - with the university, businesses, organizations, and community leadership - are an integral part of its operation. CCPE fosters collaborative academic initiatives with both credit and professional development (non-credit) programs.

CCPE programs do not receive state funding and are supported entirely by student fees.

The CCPE Mission Statement

With a clear and focused mission as leaders in international and continuing education, CCPE helps individuals and organizations reach their highest potential. CCPE is committed to becoming the premier choice for international and continuing higher education both locally and globally.

The College of Continuing Professional Education programs are major vehicles by which the university fulfills its responsibility to meet the lifelong personal and professional development learning needs of citizens, industries, and institutions within the region and beyond. Through its degree and certificate programs, credit and non-credit classes, seminars and special programs, distance delivered instruction and customized on-site training, CCPE brings the resources of CSULB to individuals and groups at times, locations, and in formats convenient to their diverse lifestyle.

CCPE values providing access and opportunity, innovation, pursuit of excellence, integrity, quality customer service, collaboration, and diversity.

Through its work, CCPE advances the mission of Extended Education in the CSU system outlined by its Commission on the Extended University:

- Meeting California’s economic and workforce development needs
- Increasing access to educational opportunities by serving broader constituencies
- Developing alternative instructional delivery systems
- Creatively developing new programs
- Providing personal and lifelong learning opportunities
- Generating new resources
- Supporting international educational experiences

CCPE Programs

CCPE maintains a customer-focused, market-driven approach to develop and deliver its programs. As a result, the programs may change often to adapt to the training and educational needs of the marketplace. CCPE offers both credit programs and professional development (non-credit), in many different subject areas. The major activity of the Academic Programs Department is to work with all colleges and academic departments within the university to develop self-support degree and certificate programs. Whether the program is academic credit-bearing or not, CCPE strives to provide the following features in every program:

- Quality curriculum
- Innovative and thoughtfully designed formats
- Convenient days/times
- Affordable fees and payment plan options
- Fast, easy registration

In addition, CCPE provides companies, organizations, and government agencies with customized professional development programs for employees at their work site or at CSULB.

For the latest comprehensive program listings and descriptions, call the CCPE Student Service Center at 800/963-2250 or log on to: http://www.ccpe.csulb.edu

Following is a sampling of the many types of programs offered by CCPE.
Degree Programs

Degree programs offered by CCPE are in partnership with other CSULB colleges.
- Bachelor of Arts in Liberal Arts
- Bachelor of Science in Engineering (Electrical or Mechanical) (at the Lancaster University Center)
- Master of Arts in Speech in Language Pathology
- Master of Arts in Dance
- Master of Arts in Kinesiology, Option: Sport Management
- Master of Business Administration (Saturday MBA for Working Adults)
- Master of Business Administration (Daytime Accelerated)
- Master of Public Administration (DL)
- Master of Science in Emergency Services Administration
- Master of Science in Geographic Information Science
- Master of Science in Health Care Administration (Accelerated)
- Master of Science in Supply Chain Management
- Master of Social Work (DL)

Professional Development Certificate Programs Offered
- Revit Fundamentals Certificate
- Basic Applied Forensic Science and Crime Analysis
- EKG Technician
- Medical Administrative Assistant
- Clinical Medical Assistant
- CATIA V5
- High Tech Crime Investigation
- Facilities Electrical Systems
- Organizational Conflict Resolution
- Pharmacy Technician
- Emergency Medical Technician (EMT)
- Human Resources Management
- Meeting and Event Planning
- Engineering and Architectural AutoCAD
- Oracle 11g Database Administrator
- Project Management
- Beyond the Basics Leadership Boost Camp

Professional Designation Programs and Industry-Specific Exam Prep Programs
- Collections Management for Costume and Textiles
- Global Logistics Specialist
- SHRM-CP and SHRM-SPC Learning System Test Prep.
- Marine Terminal Operations Professional
- Ghostwriting

International Training Programs (ITP)

The International Training Programs office addresses the growing needs of international audiences, especially from Asian countries, for academic and professional programs. Programs are customized to meet the needs of the customer and may include one day workshops, two to three week sessions, or month-long training programs. For more information, please contact Heidi Zhang, at (562) 985-4060.

Open University

Through Open University, students who are not matriculated at CSULB may take regular university classes during spring or fall semesters for academic credit on a “space available” basis with permission of the department chair and the course instructor. Open University enrollment does not constitute admission to CSULB. For more information, contact the CCPE Student Services Center at (562) 985-5561.

Winter Session, May Intersession, and Summer Sessions

These sessions are open to all matriculated CSULB students as well as non-matriculated students, and provides opportunities for students and individuals to take CSULB classes. No application or admission process is required for registration. Enrolling in any of these sessions does not constitute admission to CSULB. For more information, contact the CCPE Student Services Center at (562) 985-5561.

Study Abroad

This program promotes a global learning community by offering a full range of programs that foster student success, global perspectives, and intercultural awareness. All study abroad programs are led by CSULB faculty. Most courses are open to all majors, students from other universities, as well as CSULB faculty, staff, and members of the community on a space available basis. For more information, contact the Study Abroad Office at (562) 985-8429.

Continuing Education Units

Continuing Education Units (CEUs) are a permanent record of attendance in professional development (non-credit) programs. CEUs can enhance ones resume and provide another opportunity to showcase a commitment to professional development. CEUs for specific professions are also available.

Centers and Institutes

The American Language Institute (ALI)

The American Language Institute brings hundreds of international students to campus each year. The institute provides English as a Second Language instruction to international students most of whom are seeking admission to CSULB and other colleges and universities. ALI offerings include long-term and short-term programs, and credit and non-credit courses. Programs offered through ALI include the Intensive English Program, a non-credit program offered year-round, in which students are in class up to 25 hours per week. ALI also offers a Teaching English as a Foreign Language (TEFL) training program and an MBA Preparation Program.

The Study Abroad Program @ the Beach

Study abroad @ the Beach is a non-degree program for visiting (fee-paying) international students who would like to study abroad at California State University, Long Beach for one or two semesters. With the appropriate English proficiency level, students can take regular university courses for credit. We welcome all international high school graduates; however, most are typically second or third year
university students coming for their study abroad in the U.S. This program is offered by the Center of International Education. Course registration runs through Open University at the College of Continuing and Professional Education.

**The Center for International Education**

The Center for International Education (CIE) endeavors to foster the continued growth of a strong internationally focused educational community at CSULB. CIE is responsible for the recruitment, admission and continued advisement of degree seeking international and exchange students for the university. CIE is also responsible for the promotion and advising for all study abroad programs. In addition, CIE conducts international events, assists in faculty international development and facilitates the invitation of international scholars to campus.

**The Center for International Trade and Transportation (CITT)**

The Center for International and Trade Transportation (CITT), a major programming division of CCPE, is a multidisciplinary center for multifunctional transportation studies and integrated logistics research, education, training, policy analysis, and community outreach. Recently, CITT has been named to two new research centers of excellence, making CITT the Long Beach home for a total of four major research centers. In collaboration with the University of Southern California, CITT is a major partner in the METRANS Transportation Center which is a U.S. Department of Transportation designated University Transportation Center. CITT is a partner in the U.C Davis-led National Center for Sustainable Transportation, as well as METROFREIGHT, a Volvo Research and Education Foundations Center of Excellence in Urban Freight based at the University of Southern California. Most recently, CITT achieved the principal role in the CSULB-led Federal Highway Administration's Southwest Regional Surface Transportation Workforce Center of Excellence (SRSTWC) covering eight states- California, Arizona, Nevada, New Mexico, Utah, Colorado, Oklahoma, and Texas. In the last two years, the above programs have brought in more than six million dollars in federal and state grant funding. Additionally, CITT offers the highly acclaimed Global Logistics Specialist (GLS) professional designation program, the Marine Terminal Operation Professional Program (MTOP), and various customized programs and workshops.

**The Advanced Media Production Center (AMP)**

CCPE’s Advanced Media Production Center (AMP) is an award-winning, full-service video and digital media production facility. The center provides the campus, and appropriate local institutions with a wide variety of professional media production services and resources in support of educational and promotional needs.

AMP services include consultation, planning, design, development, and implementation of media projects in video production, web delivery and support, and computer graphics animation. The AMP Center also programs and operates Beach TV, the university’s cable television channel.
SCHOOL OF CRIMINOLOGY, CRIMINAL JUSTICE, AND EMERGENCY MANAGEMENT

College of Health and Human Services

School Director: Brenda L. Vogel
School Office: Engineering Technology (ET) Room 232
Telephone: (562) 985 - 8965
Faculty: Jamie Birnall, Alice Choi, Ryan G. Fischer, Connie Ireland, Aili Malm, Rebecca Nash, Dina Perrone, Robert Schug, Christine Scott-Hayward, Tracy Tolbert, Sam Vickovic, Brenda L. Vogel, John Wang
Undergraduate Advisor: CHHS Academic Advising and Resources Center
Graduate Advisor: Aili Malm
Internship Coordinators: Ron Mark, Brenda Vogel
Office Manager: Durrell Dew

CAREER OPTIONS

Police Officer • Probation Officer • Claims Representative • Private Investigator • Customs Agent • Special Agent • FBI • Health & Safety Inspector • Criminologist • Game Warden • Park Ranger • Alcohol-Tobacco-Firearms Agent • Correctional Officer • Paralegal • Immigration Inspector • Intelligence Analyst-CIA • Parole Officer • Teacher • Prison Administrator • Lawyer • Credit Investigator • Border Patrol Agent (Some of these careers require additional education or experience.) Various entry-level trainee positions in business and industry are available for graduates regardless of academic discipline.

Introduction

The school works collaboratively to investigate, understand, and solve social problems related to crime through the interdisciplinary and comparative study of crime and criminal behavior, as well as the policies and systems designed to control criminality. Graduates are well-prepared to become agents of positive change in the justice system through evaluation, research, ethical practice, and dedicated service. Graduates are also prepared to pursue advanced degrees in criminology/criminal justice, law, public affairs, and related graduate fields.

UNDERGRADUATE PROGRAMS

Bachelor of Science in Criminology and Criminal Justice
(120 units)

This program is designed to accommodate the needs of new college students, continuing students, transferring students, and experienced criminal justice practitioner. We offer sufficient courses in the evenings for students to graduate with this degree without taking daytime classes.

Students intending to transfer from community colleges to this University are advised to complete general education requirements while attending the community college. Courses equivalent to CRJU 101 and lower-division cognate courses (SOC 100, PSY 100, POSC 100 and PHIL 170), should be taken while attending community college. Other criminal justice courses taken at community colleges will be accepted as lower-division electives provided the college where they were taken designated them as transferable to CSU. These courses cannot be substituted for upper-division criminal justice courses.

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements

1. Major Courses: Take 48 units of criminal justice as follows:
   A. Take 36 units of the following core courses:
      CRJU 101 The Criminal Justice System in Society (3)
      CRJU 110 Introduction to Justice Research, Writing, and Reasoning (3)
      CRJU 301 Criminal Courts and Judicial Processes (3)
      CRJU 302 Policing (3)
      CRJU 303 Corrections: Theory, Policy, Practice Corrections (3)
      CRJU 304 Criminological Theory (4)
      CRJU 320 Criminal Justice Research Methods (4)
      CRJU 330 Criminal Justice Ethics, Values and Diversity (3)
      CRJU 340 Substantive Criminal Law (3)
      CRJU 350 Constitutional Criminal Procedure (3)
   B. Take 3 units of the following restricted options courses:
      CRJU 401, CRJU 402, CRJU 403, CRJU 404, CRJU 405

2016-2017 CSULB Catalog • School of Criminology • 333
Minor in Criminal Justice

Requirements

The minor requires a minimum of 22 units as follows:

1. Take 19 units of the following core courses:
   - CRJU 101 The Criminal Justice System in Society (3)
     Prerequisites/Corequisites: One GE Foundation course.
   - CRJU 110 Introduction to Justice Research, Writing, and Reasoning (3)
     Prerequisites: A grade of "C" or better in ENGL 100 or GE Composition (Area A1).
   - CRJU 301 Criminal Courts and Judicial Processes (3)
     Prerequisites/Corequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
   - CRJU 302 Policing (3)
     Prerequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
   - CRJU 303 Corrections: Theory, Policy, Practice Corrections (3)
     Prerequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
   - CRJU 304 Criminological Theory (4)
     Prerequisites: A grade of "C" or better in CRJU 101 and CRJU 110.

2. Take 3 units of one of the following:
   - CRJU 340 Substantive Criminal Law (3)
     Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 301.
   - CRJU 350 Constitutional Criminal Procedure (3)
     Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 301.

   All courses in the criminal justice minor must be taken for a letter grade only (A-F) and must be successfully completed with a grade of "C" or higher. CRJU 101 and CRJU 110 are prerequisites for all core courses at the 300-level. All 300-level courses must be taken in residence at CSULB and, therefore, may not be transferred in from other colleges or universities.

Admission to the Minor

The minor in criminal justice is available to any non-criminal justice major. Students who would like to declare and/or change to criminal justice as their minor must have an overall G.P.A. of 2.0 and be enrolled in or have completed CRJU 101 or an equivalent course at another college or university. Alternative admission requirements may apply during times when the school is impacted.

Minor in Forensic Studies

This minor provides students with an understanding of the nature of criminal evidence and an appreciation of how forensic investigative methods are used in quest for justice. It is particularly useful for students majoring in engineering, the natural sciences, the social sciences, art, and various human services disciplines. The minor may be combined any major at CSULB, although criminal justice majors may not "double count" CRJU 230, CRJU 412, CRJU 430, CRJU 440, CRJU 441, CRJU 442, CRJU 443, CRJU 490, or CRJU 492 for credit towards their major elective courses and the minor in forensic studies.

Requirements

The minor in forensic studies requires completion of a
minimum of twenty-seven (27) units as follows:

1. Completion of six (6) units of the following required prerequisite courses with grades of "C" or higher:
   - CRJU 101 The Criminal Justice System in Society (3) Prerequisites/Corequisites: One GE Foundation course.
   - CRJU 110 Introduction to Justice Research, Writing, and Reasoning (3) Prerequisites: A grade of "C" or better in ENGL 100 or GE Composition (Area A1).

2. Completion of fifteen (15) units of the following required core classes:
   - CRJU 230 Survey of the Forensic Sciences (3) Prerequisites: None.
   - CRJU 301 Criminal Courts and Judicial Processes (3) Prerequisites/Corequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
   - CRJU 350 Constitutional Criminal Procedure (3) Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 301.
   - CRJU 412 Criminal Investigation (3) Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 302.
   - CRJU 440 Criminalistics: Forensic Science in the Crime Laboratory (3) Prerequisite: A grade of "C" or better in CRJU 230 or consent of instructor.

3. Completion of six (6) units of forensic electives from the following options: CRJU 430, CRJU 441, CRJU 442, CRJU 443, CRJU 490, CRJU 492 or any approved applied forensics courses offered in a related discipline.

   Each course in the minor must be completed with a grade of "C" or better. In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite.

   Students who would like to declare the minor in forensic studies must have completed the two prerequisite courses (CRJU 100, 110) and have an overall G.P.A. of 2.5. Alternative admission requirements may apply during times when the school is impacted.

**GRADUATE PROGRAMS**

**Master of Science in Criminology and Criminal Justice**

Graduate study in criminal justice provides the requisite knowledge and opportunity for individuals to (1) be competitive for administrative positions in the courts, corrections, law enforcement, security, probation and parole; (2) fill research positions in criminal justice agencies; (3) pursue advanced degrees (J.D. or Ph.D.); and (4) fill community college teaching positions in criminal justice.

The Master of Science degree in criminology and criminal justice will expand and increase individual competency, develop and mature thought processes, aid in gaining insights into professional leadership and knowledge, permit an exchange between students and faculty, and further the spirit of research and scholarship to enhance professional and personal development.

**Admission**

Students seeking admission to the School of Criminology, Criminal Justice and Emergency Management Graduate Program should have an undergraduate degree and a desire for graduate study. Applicants must apply for admission to the School of Criminology, Criminal Justice and Emergency Management in addition to being admitted by Enrollment Services. Students must be accepted for admission by the School before their program for a master's degree can be formulated. Students are not allowed to take graduate course work in criminal justice before being accepted to the program. The following items must be submitted:

1. Two copies of the CSULB graduate application. The original must be sent to Enrollment Services and a copy must be sent to the School of Criminology, Criminal Justice and Emergency Management.
2. Applicants must select ONE of the following three options to demonstrate their aptitude for graduate study:
   - Option A: The GRE -- Official test scores on the Graduate Record Exam (GRE) General Test. While no specific cut-off scores are required, a score of 4.0 or higher on the writing portion is strongly preferred.
   - Option B: The LSAT -- Official test scores on the Law School Admissions Test. No specific cut-off scores are required.
   - Option C: Evidence of Research Potential -- Applicants who prefer not to take any standardized tests may submit one or two writing samples that evidence their research, writing, and critical thinking abilities.
3. Official transcripts of all undergraduate course work, including work done at all community colleges attended. Each applicant must request that official transcripts be sent to both the Graduate Advisor in the School of Criminology, Criminal Justice and Emergency Management and Enrollment Services.
4. Two letters of recommendation from persons able to testify to the student's academic ability, preferably from former professors. These letters must be sent to the School of Criminology, Criminal Justice and Emergency Management Graduate Advisor.
5. A résumé sent directly to the School of Criminology, Criminal Justice and Emergency Management Graduate Advisor that describes the applicant's academic achievements (including honors and awards), extracurricular activities, as well as relevant work, internship, and volunteer experiences.
6. A typewritten letter of intent (between 750 and 1,250 words) sent directly to the School of Criminology, Criminal Justice and Emergency Management Graduate Advisor. This essay should address: (a) what motivates the applicant to apply for a graduate degree; (b) what relevant research and practical experiences qualify the applicant for admission; (c) what the applicant's specific areas of interests in criminal justice practice, policy, and/or research are; (d) with whom on the faculty the applicant would like to work and why; and (e) what the applicant's personal goals and objectives are for earning a master's degree in criminology and criminal justice at CSULB.
7. International students are subject to the same admission criteria as non-international students plus a TOEFL score of 100 for the internet-based exam or 600 for the paper-based exam.

Prerequisites
1. A bachelor's degree from a regionally-accredited university. Although a major or minor in criminology, criminal justice, or a related social-scientific discipline is preferred, the School's Graduate Committee may admit students with undergraduate preparation in other fields.
2. A student must have an overall undergraduate average (GPA) and average in their major of 3.00 or better. A student whose overall grade point average is between 2.750 and 2.999, but who presents acceptable evidence of professional potential either through recent academic performance and/or experiential background, may be conditionally admitted by special action of the School's Graduate Committee.

Competencies
Students entering the M.S. program in criminology and criminal justice are expected to have completed the following six undergraduate courses or their equivalents:
(1) CRJU 101: The Criminal Justice System in Society;
(2) CRJU 304: Criminological Theory;
(3) CRJU 320: Research Methods (or a similar social-scientific research methods course in psychology, sociology, political science, or related field);
(4) CRJU 325: Statistics (or a similar applied statistics course);
(5) CRJU 340: Substantive Criminal Law; and
(6) CRJU 350: Constitutional Criminal Procedure.

Students who have not taken courses in criminological theory, research methods, and statistics during their undergraduate studies still qualify for conditional admission to the M.S. program in criminology and criminal justice, but will be required to take deficiency courses in these areas before being permitted to enroll in the graduate-level courses for which undergraduate competency in one or more of these areas is required. Because deficiency courses do not count for graduate credit, the necessity of acquiring undergraduate competency in one or more of these areas may extend the time to degree completion by a semester. Students who have not taken courses in criminal law or criminal procedure will be required to use one or two of their elective courses to gain competency in the areas. Taking such courses will not delay graduation.

Advancement to Candidacy
1. Students must satisfy the general University requirements for advancement to candidacy, as specified in this catalogue.
2. Before advancing to candidacy, students must successfully complete 12 graduate units within the core (CRJU 501, CRJU 504, CRJU 520, and CRJU 525) with a minimum grade of "B" in each of the courses.
3. Before advancing to candidacy, students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) and have successfully passed the School's qualifying examination.
4. Each student's graduate program must be approved by the School Graduate Advisor, the Director of the School, and the Associate Dean of the College of Health and Human Services.

Requirements
1. Take 18 units of the following core courses:
   CRJU 501 Proseminar and Professional Writing in Criminology and Criminal Justice (3)
   Prerequisites: Restricted to Criminal Justice master's students; all other students must have consent from Graduate Advisor.
   CRJU 504 Criminological Theory (3)
   Prerequisites: CRJU 304 or comparable undergraduate criminological theory course approved by the Graduate Advisor. Restricted to Criminal Justice masters students; all other students must have consent from the Graduate Advisor.
   CRJU 520 Advanced Criminal Justice Research Methods (3)
   Prerequisites: CRJU 320 and CRJU 325 or comparable undergraduate research methods and statistics courses approved by the Graduate Advisor. Restricted to Criminal Justice masters students; all other students must have consent from Graduate Advisor.
   CRJU 525 Advanced Statistics for Criminal Justice (3)
   Prerequisites: CRJU 320 and CRJU 325 or comparable undergraduate research methods and statistics courses approved by the Graduate Advisor. Restricted to Criminal Justice masters students; all other students must have consent from Graduate Advisor.
   CRJU 535 Criminal Justice Policy (3)
   Prerequisites: CRJU 504, CRJU 520, and CRJU 525.
   CRJU 555 Law and Social Control (3)
   Prerequisites: CRJU 340 and CRJU 350 or comparable undergraduate courses in substantive criminal law and constitutional criminal procedure. Open to Criminal Justice master's students only. All others require consent of the Criminal Justice Graduate Advisor.
2. Take CRJU 530 Criminal Justice Ethics, Values & Diversity (3), unless waived because the student completed an undergraduate course in applied criminal justice ethics with a grade of "B" or higher. If so waived, the student must take 3 units of any graduate-level elective in lieu of CRJU 530.
3. Successful passage of the School's qualifying examination testing graduate-level competency in statistics, research methods, and criminological theory.
4. Take 15 additional graduate units in one of two ways:
   A. Thesis Option:
      Take 9 units of advisor-approved electives and the following courses:
      CRJU 694 Thesis I (3)
      Prerequisites: Advancement to candidacy as a Criminal Justice master's student.
      CRJU 698 Thesis II (3)
      Prerequisites: CRJU 694.
   B. Comprehensive Examination Option:
      Take 15 units of advisor-approved electives and successful completion of the comprehensive master's essay examination in either policing, corrections, law and social control, crime and mental illness, crime and inequality, or other authorized subject area.
      Note: Masters students who were admitted under a prior catalog year need to complete the course requirements specified in the catalog in
Criminal Justice Courses (CRJU)

LOWER DIVISION

101. The Criminal Justice System in Society (3)
Prerequisites/Corequisites: One GE Foundation course.
Introduction to the study of criminal justice in American society. Focuses on the history, philosophy, functions, roles, policies, practices, and ethics of the institutions of social control within the criminal justice system, especially police, courts, and correctional personnel.
Letter grade only (A-F). Not open for credit to students with credit in CRIM 101.

110. Introduction to Justice Research, Writing, and Reasoning (3)
Prerequisite(s): A grade of "C" or better in ENGL 100 or GE Composition (Area A1).
Develops the skills needed to conduct and properly cite library and electronic research for social scientific and legal sources; and use them to make persuasive oral presentations and write papers, case briefs, and reports commonly used in the justice professions.
Letter grade only (A-F).

210. Gangs: Structure, Activities, and Responses (3)
An interdisciplinary examination of the factors that contribute to gang formation and membership; the structure and function of gangs; gang activities (including crime); and the various policy and programmatic responses to gangs.
Letter grade only (A-F).

230. Survey of the Forensic Sciences (3)
The application of scientific principles to criminal investigations and trials, focusing on crime scene analysis and recording; analytical methods of criminalistics; significance of results; and the specialized roles of criminalists and forensic biology, chemistry,ballistics, medicine, dentistry, anthropology, and psychology.

290. Selected Topics in Criminal Justice (3)
Introductory topics of current interest in the field of criminal justice selected for intensive development.
May be repeated for a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.

Upper Division

301. Criminal Courts and Judicial Processes (3)
Prerequisite/Corequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
Examines the structure and operation of the criminal court systems of the U.S. at the local, state, and federal levels, including their respective jurisdictions. Emphasizes pretrial and adjudication processes and the organizational roles and behaviors within the court system.
Not open for credit to students with credit in CRIM 351. Letter grade only (A-F).

302. Policing (3)
Prerequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
The historical evolution of policing as an institution of social control with emphasis placed on the contemporary roles of police officers, including patrol strategies, training procedures, ethical standards, and discretion. Considers under-represented groups in policing and corruption in police agencies.
Not open for credit to students with credit in CRIM 483. Letter grade only (A-F).

303. Corrections: Theory, Policy and Practice
Corrections (3)
Prerequisites: A grade of "C" or better in CRJU 101 and CRJU 110 (may be taken concurrently).
Historical and philosophical reactions to law violators. Overview of institutional and community corrections. Examination of differing penal institutions. Evaluation of rehabilitation as crime control strategy. Alternatives to incarceration will be explored as criminal sanctions.
Not open for credit to students with credit in CRIM 468. Letter grade only (A-F). Field trips may be required.

304. Criminological Theory (4)
Prerequisite: A grade of "C" or better in CRJU 101 and CRJU 110.
A writing-intensive exploration of theories of crime, criminal behavior, and crime control policies. Criminological theories are traced through history by focusing on connections to biology, psychology, philosophy, politics, sociology, and economics. Not open for credit to students with credit in CRIM 404. Letter grade only (A-F).

307. Crimes against Consumers (3)
Study of laws and agencies devoted to consumer protection; the investigation of consumer crimes, including product counterfeiting, consumer frauds/scams, false advertising, adulterated food, dangerous drugs and devices, and quackery; and college students, veterans, immigrants, and seniors as consumer crime victims.
Letter grade only (A-F) Same course as CAFF 307. Not open for
320. Criminal Justice Research Methods (4)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304 (may be taken concurrently).
Introduction to basic techniques in criminal justice research, including report writing, components of research design models, sampling techniques, data collection techniques, questionnaire construction, interview techniques, and participant observation. Focus on bridging the gaps between theory, research, and justice policy. Letter grade only (A-F). Not open for credit to students with credit in CRIM 480. (3 hours lecture; 2 hours activity)

325. Statistics for Criminal Justice (4)
Prerequisite: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 320.
Descriptive and inferential statistics covering univariate, bivariate, and multivariate statistical techniques. Focus on probability theory, significance testing, inferential statistics used for quantitative data analysis by criminal justice researchers and administrators. Includes laboratory using statistical software packages. Letter grade only (A-F). (Lecture 3 hours, laboratory workshop 1 hour.)

330. Criminal Justice Ethics, Values, and Diversity (3)
Prerequisites: A grade of "C" or better in CRJU 302 and CRJU 303.
Identifies and explores ethics and values in the criminal justice system, paying special attention to issues of social inequality. Discusses remedial strategies and behavior relating to unethical behavior from an individual and group perspective. Not open for credit to students with credit in CRIM 305. Letter grade only (A-F).

340. Substantive Criminal Law (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 301.
Analysis of the historical development of criminal law and the underlying principles used to interpret it. Focuses on statutory construction and case law deconstruction of the elements and defenses to major crimes, and the public policy implications of these interpretations. Letter grade only (A-F).

350. Constitutional Criminal Procedure (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 301.
A study of criminal procedures mandated by the U.S. Constitution emphasizing searches and seizures under the Fourth Amendment; interrogations and confessions under the Fifth Amendment; the Sixth Amendment right to counsel; and due process under the Fourteenth Amendment. Not open for credit to students with credit in CRIM 451. Letter grade only (A-F).

360. Delinquency and the Juvenile Justice System (3)
Prerequisite: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Theoretical foundations of delinquency causation. Historical tracing of the American juvenile justice system including the juvenile court and its jurisdiction. Police interaction with juveniles; treatment and correctional strategies for young offenders. Examination of prevention and treatment approaches. Not open for credit to students with credit in CRIM 487. Letter grade only (A-F).

363. Comparative Criminal Justice and Transnational Crimes (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Examination of criminal justice systems around the world and related transnational crime issues. Political, social, and economic environments are studied in relation to varying criminological practices. Includes the role of international law, international criminal courts, the UN, and Interpol. Not open for credit to students with credit in CRIM 484

404. Terrorism, Homeland Security, and Criminal Justice (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Set against the background of our global community, an examination of the relationship between the historical and contemporary motivations and goals of terrorism, United States Homeland Security and select aspects of the United States criminal justice systems. Letter grade only (A-F).

405. Crime Analysis (4)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Examines the fundamentals of crime analysis with emphasis on crime mapping, criminal network analysis, and crime prevention. The laboratory portion applies hands-on computational techniques to different types of crime data. (3 hours seminar, 1 hour activity)

406. Victimology (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Analyses of crime victimization, including both criminal and non-criminal victimization. The effects of crime on victims and select aspects of the United States criminal justice systems. Not open for credit to students with credit in CRIM 451. Letter grade only (A-F).

407. White Collar Crime (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Discuss and explain the various types of white-collar crimes and the damage white-collar crime inflicts upon individual victims, society, institutions, and culture. Research current trends in white collar crime, especially those concerning consumer product frauds and fraudulent business opportunities.

408. Serial Killers and Psychopaths: The Psychology of the Criminal Mind (3)
Prerequisites: A grade of "C" or better in CRJU 304. Psychology majors: PSY 220, PSY 370. All other majors: Consent of Instructor. Integrative examination of the intersection of criminal behavior and severe psychopathy using psychodynamic, behavioral, psychosocial, and neurobiological models. Particular attention is paid to understanding homicide and sex offenses committed by those diagnosed with psychopathy, schizophrenia, and antisocial personality disorder. Same course as PSY 377. Not open for credit to students with credit in PSY 377.
409/609. Drugs and the Drug War (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
This course engages with the theoretical foundations of drug use and U.S. drug war. The impacts and effectiveness of prohibition, treatment, prevention, interdiction, and harm reduction are assessed. Global policies (e.g., Western Europe, Afghanistan, and South America) are integrated throughout.
Letter grade only (A-F). Not open for credit to students with credit in CRJU 609/409 or CRJU 460.

410. Police Administration (3)
Prerequisites: A grade of "C" or better in CRJU 302 and CRJU 330.
Organizational management and systems approach to the study of police administration. Emphasizes the administration of various police functions, organizational structures, resources management, operational techniques, professional ethics, and leadership principles and their implications for generalized and specialized units.
Not open for credit to students with credit in CRIM 325.

412. Criminal Investigation (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 302.
Study of basic principles of criminal investigation. Analysis of investigative techniques; patterns and modus operandi; interviewing and interrogation strategies; collection and management of evidence; surveillance; and crime scene investigation. Theories, philosophies, and concepts related to suppression of crime are covered.
Not open for credit to students with credit in CRIM 365.

420. Legal Aspects of Corrections (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 303.
Overview of court decisions related to corrections. Study of current legal issues and their impact on correctional policies and procedures.
Not open for credit to students with credit in CRIM 356.

421. Probation, Parole and Community Corrections (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 303.
Focus is on probation, parole and other intermediate sanctions and community treatment options. Each is examined from both punishment and treatment model perspectives. The pre-sentence investigation (PSI) will be analyzed. Supervision of offender in community and revocation will be discussed.
Not open for credit to students with credit in CRIM 470. Field trips may be required.

422. Correctional Counseling (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 303.
Techniques of counseling strategies utilized by correctional workers, including reality therapy, behavior modification, group counseling, and 12-step programs. Evaluation of the effectiveness of correctional treatment with emphasis on treatment of substance abuse, mental illness, sex offenders, and female offenders.

423. Correctional Environments (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 303.
An introduction to American penology through six all-day field trips to city, county, state, and federal correctional facilities. Includes observations of juvenile court proceedings and visits to county juvenile halls, a juvenile treatment facility, and a state youthful offender institution.
Not open for credit to students with credit in CRIM 369. Letter grade only (A-F). Special start dates and end dates apply. Full-day field trips are required. Course fee may be required.

430. Criminal Evidence and Trials (3)
Prerequisites: A grade of "C" or better in CRJU 301, CRJU 340, CRJU 350; and consent of instructor.
Using a mock-trial approach, an in-depth study of procedural, evidentiary, tactical, and ethical problems experienced by lawyers, witnesses, and defendants. Emphasis on the rules of evidence and expert testimony as it relates to policing and the forensic sciences.

431. Courtroom Environments (3)
Prerequisites: CRJU 101, 110, and 301
An introduction to how the criminal court system operates in practice through six full-day field trips to state and federal, adult and juvenile, trial and appellate courts. Includes meetings with courtroom actors such as judges, prosecutors, and defense attorneys.
Letter grade only (A-F). Special start dates and end dates apply. Full-day field trips are required.

440. Criminalistics: Forensic Science in the Crime Laboratory (3)
Prerequisite: A grade of "C" or better in CRJU 230 or consent of instructor.
Overview of general principles of forensic science, techniques, equipment, and methodologies as used in crime laboratories. Focus on fingerprint and firearm identification, trace evidence (hair, fiber, paint, glass), blood, DNA evidence, forensic document examination, crime scene kits, and forensic microscopy.
Not open for credit to students with credit in CRIM 462. Letter grade only (A-F).

441. Investigating High-Tech Crimes (3)
Prerequisite: A grade of "C" or better in CRJU 230 or consent of instructor.
Overview of general classification, devices, microscopy, and methodologies in investigating high-tech crimes. Focuses on counterfeiting and fraud related to U.S. currency, credit card, checks, driver's licenses, social security cards, DVS/CD, cable TV box/satellite TV cards, and computer-based "cybercrimes."
Not open for credit to students with credit in CRIM 463. Letter grade only (A-F).

442. Forensic Psychology and the Criminal Justice System (3)
Prerequisites: A grade of "C" or better in CRJU 301.
An interdisciplinary examination of the relationship between psychiatry, clinical psychology, and the criminal justice system with regard to mentally-ill criminal offenders. Focus is on the legal standards for determining various criminal competencies, insanity, diminished capacity, and related defenses of excuse.

443. Forensic Pathology and the Medical-Legal Investigation of Death (3)
Prerequisite: A grade of "C" or better in CRJU 230 or consent of instructor.
A multimedia examination of the medico-legal investigation of death. Focuses on thanatology and thanato-etiologies of unexpected natural deaths, accidental deaths, suicides, and homicides. Special attention to deaths by gunshot wound, sharp force injury, blunt force trauma, asphyxiation, and electrocution.
Letter grade only (A-F). Field trips may be required.
450. Domestic Violence and the Criminal Justice System (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, CRJU 301, CRJU 302, and CRJU 304.
Domestic violence is studied as a phenomenon that impacts the criminal justice system. Spousal/intimate partner abuse, child abuse, and elder abuse are studied from a multidisciplinary perspective. Strategies for criminal justice personnel handling these cases are stressed.
Not open for credit to students with credit in CRIM 492.

461. Sex, Sexuality, Crime, and Punishment (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, CRJU 302, CRJU 303, and CRJU 304.
All other majors: upper-division standing and at least one other WGSS course, or consent of the instructor.
Transdisciplinary and critical examination of the accepted boundaries of human sexual behavior and opposing perspectives regarding the roles of criminal justice actors and institutions in regulating sex and sexuality, with special attention paid to sex-related crimes, offenders, and victims.
Same course as WGSS 417. Not open for credit to students with credit in WGSS 417.

470. Qualitative Approaches to Criminal Justice Research (3)
Prerequisites: A grade of "C" or better in CRJU 101, CRJU 110, and CRJU 304.
Qualitative research methodologies for studying criminal behavior and criminal justice system participants. Students will develop, implement, analyze, and write a qualitative research project while adhering to ethical responsibilities regarding human subjects, natural settings, and the dissemination of research.

490. Selected Topics in Criminal Justice (3)
Prerequisites: A grade of "C" or better in all 300-level core courses or consent of instructor.
Advanced and specialized topics of current interest in the field of criminal justice selected for intensive development.
May be repeated to a maximum of 9 units with different topics in the same semester. Topics announced in the Schedule of Classes.

491. Internship (3)
Prerequisites: Departmental consent or a grade of "C" or better in 7 of the 9 300-level core courses (CRJU 301, CRJU 302, CRJU 303, CRJU 304, CRJU 320, CRJU 325, CRJU 330, CRJU 340, and CRJU 350).
Supervised work experience in a criminal justice agency for at least 65 hours.
Letter grade only (A-F). May be repeated for 3 additional units.

492. Internship (6)
Prerequisites: Departmental consent or a grade of "C" or better in seven of the nine 300-level core courses (CRJU 301, CRJU 302, CRJU 303, CRJU 304, CRJU 320, CRJU 325, CRJU 330, CRJU 340, and CRJU 350).
Supervised work experience in a criminal justice agency.
Letter grade only (A-F). Not open for credit to students employed in criminal justice agencies.

497. Directed Research or Independent Study (3)
Prerequisites: A grade of "C" or better in all 300-level core courses (CRJU 301, CRJU 302, CRJU 303, CRJU 304, CRJU 320, CRJU 325, CRJU 330, CRJU 340, and CRJU 350) or consent of instructor.
For students who wish to learn about a topic related to criminology, criminal justice, or forensics in great detail through independent reading and writing assigned by a faculty member.
May be repeated to a maximum of 9 units.

498. Senior Thesis (3)
Prerequisites/Corequisites: A grade of "C" or better in all 300-level core courses (CRJU 301, CRJU 302, CRJU 303, CRJU 304, CRJU 320, CRJU 325, CRJU 330, CRJU 340, and CRJU 350); a minimum 3.0 grade point average, and consent of instructor.
For students who wish to engage in intensive guided research and write a thesis under the direction of a panel of three faculty members. Highly recommended for students who plan to pursue graduate or law school.
May be repeated for a maximum of 6 units with the same topic.

GRADUATE LEVEL

501. Proseminar and Professional Writing in Criminology and Criminal Justice (3)
Prerequisite: Restricted to Criminal Justice master’s students; all other students must have consent of Graduate Advisor.
Overview of graduate study in criminology and criminal justice, focusing multidisciplinary library research for evaluating primary sources used at the graduate level; locating statistical data; and exploring research ideas presented by faculty, students, and guests.
Not open for credit to students with credit in CRIM 584 or CRJU 551. Letter grade only (A-F).

504. Criminological Theory (3)
Prerequisite: Restricted to criminal justice masters students; all other students must have consent of the Graduate Advisor.
Exploration of theories and policy implication of crime. Political, social, and economic context will be used to explore the ecology of criminal behavior. Underpinnings of criminological theory are traced through history by focusing on connection to biology, psychology, and sociology.
Not open for credit to students with credit in CRIM 581. Letter grade only (A-F).

520. Advanced Criminal Justice Research Methods (3)
Prerequisites: CRJU 320 and CRJU 325 or comparable undergraduate research methods and statistics courses approved by the Graduate Advisor. Restricted to Criminal Justice masters students; all other students must have consent from Graduate Advisor.
An in-depth exploration of the scientific methods used in criminology and criminal justice research, including research design and both quantitative and qualitative research methodologies. Special attention is paid to the ethics of human subjects research.
Not open for credit to students with credit in CRIM 583. Letter grade only (A-F).

525. Advanced Statistics for Criminal Justice (3)
Prerequisite: CRJU 320 and CRJU 325 or comparable undergraduate research methods and statistics courses approved by the Graduate Advisor. Restricted to Criminal Justice masters students; all other students must have consent from Graduate Advisor.
Nonparametric, bivariate, and multivariate inferential statistics that are used for quantitative data analysis by criminal justice researchers and practitioners.
Not open for credit to students with credit in CRIM 582. Letter grade only (A-F).

530. Criminal Justice Ethics, Values, and Diversity (3)
Prerequisites: Open to Criminal Justice master’s students only. All other majors: upper-division standing and at least one other WGSS course, or consent of the instructor.
Overview of graduate study in criminology and criminal justice, focusing multidisciplinary library research for evaluating primary sources used at the graduate level; locating statistical data; and exploring research ideas presented by faculty, students, and guests.
Not open for credit to students with credit in CRIM 581. Letter grade only (A-F).
535. Criminal Justice Policy (3)
Prerequisites: CRJU 504, CRJU 520, and CRJU 525.
Critical evaluation of policy-oriented scholarly literature in criminology and criminal justice, focusing on contemporary literature related to the philosophical, social, political, and legal policy issues affecting the American criminal justice system.
Letter grade only (A-F).

540. Substantive Criminal Law (3)
Prerequisites: Consent of Criminal Justice Graduate Advisor.
Analysis of the historical development of criminal law and the underlying principles used to interpret it. Focuses on statutory construction and case law deconstruction of the elements and defenses to major crimes, and the public policy implications of these interpretations.
Not open for credit to students with credit in CRJU 340. Letter grade only (A-F).

550. Constitutional Criminal Procedure (3)
Prerequisites: Consent of Criminal Justice Graduate Advisor.
A study of criminal procedures mandated by the U.S. Constitution emphasizing searches and seizures under the Fourth Amendment, interrogations and confessions under the Fifth Amendment; the Sixth Amendment right to counsel; and due process under the Fourteenth Amendment.
Not open for credit to students with credit in CRJU 350. Letter grade only (A-F).

555. Law, Justice, and Social Control (3)
Prerequisites: CRJU 340 or CRJU 540 or equivalent undergraduate course in criminal law as approved by Graduate Advisor; and CRJU 350 or CRJU 550 or equivalent undergraduate course in criminal procedure as approved by Graduate Advisor.
Evaluation of the ways in which society responds, both informally and formally, to criminal and non-criminal deviance. Special attention is paid the role of the U.S. Constitution in limiting the exercise of formal social control.
Letter grade only (A-F).

604. Terrorism, Homeland Security, and Criminal Justice (3)
Prerequisites: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
Set against the background of our global community, an examination of the relationship between the historical and contemporary motivations and goals of terrorism, United States Homeland Security and select aspects of the United States criminal justice systems.
Letter grade only (A-F).

605. Crime Analysis (4)
Prerequisites: CRJU 504 and CRJU 525.
Examines the fundamentals of crime analysis with emphasis on crime mapping, criminal network analysis, and crime prevention. The laboratory portion applies hands-on computational techniques to different types of crime data.
(3 hours seminar, 1 hour activity)

608. Serial Killers and Psychopaths: The Psychology of the Criminal Mind (3)
Prerequisites: Restricted to criminal justice master’s students; all other students must have consent from the Graduate Advisor.
Integrative examination of the intersection of criminal behavior and severe psychopathology using psychodynamic, behavioral, psychosocial, and neurobiological models. Particular attention is paid to understanding homicide and sex offenses committed by those diagnosed with psychopathy, schizophrenia, and antisocial personality disorder.

609/409. Drugs and the Drug War (3)
Prerequisites: A grade of "C" or better in CRJU 501 and 504 or permission of instructor.
This course engages with the theoretical foundations of drug use and U.S. drug war. The impacts and effectiveness of prohibition, treatment, prevention, interdiction, and harm reduction are assessed. Global policies (e.g., Western Europe, Afghanistan, and South America) are integrated throughout.
Letter grade only (A-F). Not open for credit to students with credit in CRJU 409 or 460.

621. Administration and Management of Criminal Justice Organizations (3)
Prerequisites: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
Introduction to the management of criminal justice agencies in the U.S. Examines the purposes, goals, and functions of administrative principles from a multidisciplinary systems perspective to develop both a theoretical and practical understanding of criminal justice leadership and management.
Not open for credit to students with credit in CRIM 621. Letter grade only (A-F).

631. Legal Issues in Criminal Justice (3)
Prerequisites: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
Analysis of current and controversial legal issues in the criminal justice system focusing on controversial decisions of the U.S. Supreme Court.
Not open for credit to students with credit in CRIM 551. Letter grade only (A-F).

640. Criminalistics: Forensic Science in the Crime Laboratory (3)
Prerequisite: Restricted to criminal justice masters students only; all others require consent of the Graduate Advisor.
Overview of general principles of forensic science, techniques, equipment, and methodologies as used in crime laboratories. Focus on fingerprint and firearm identification, trace evidence (hair, fiber, paint, glass), blood, DNA evidence, forensic document examination, crime scene kits, and forensic microscopy.
Not open for credit to students with credit in CRIM 562. Letter grade only (A-F). Undergraduate students register for CRJU 440; graduate students for CRJU 640.

641. Investigating High-Tech Crimes (3)
Prerequisite: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
Overview of general classification, devices, microscopy, and methodologies in investigating high-tech crimes. Focuses on counterfeiting and fraud related to U.S. currency, credit card, checks, driver’s licenses, social security cards, DVS/CD, cable TV box/satellite TV cards, and computer-based “cybercrimes.”
Not open for credit to students with credit in CRIM 563. Letter grade only (A-F).

642. Forensic Psychology and the Criminal Justice System (3)
Prerequisites: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
An interdisciplinary examination of the relationship between psychiatry, clinical psychology, and the criminal justice system with regard to mentally-ill criminal offenders. Focus is on the legal standards for determining various criminal competencies, insanity, diminished capacity, and related defenses of excuse.
Letter grade only (A-F).
643. Forensic Pathology and the Medical-Legal Investigation of Death (3)
Prerequisite: Open to Criminal Justice master’s students only. All others require consent of the Criminal Justice Graduate Advisor.
A multimedia examination of the medico-legal investigation of death. Focuses on thanatology and thanato-etiology of unexpected natural deaths, accidental deaths, suicides, and homicides. Special attention to deaths by gunshot wound, sharp force injury, blunt force trauma, asphyxiation, and electrocution.
Letter grade only (A-F). Field trips may be required.

661. Sex, Sexuality, Crime, and Punishment (3)
Prerequisites: Open to criminal justice master’s students only.
Transdisciplinary and critical examination of the accepted boundaries of human sexual behavior and opposing perspectives regarding the roles of criminal justice actors and institutions in regulating sex and sexuality, with special attention paid to sex-related crimes, offenders, and victims.

670. Qualitative Approaches to Criminal Justice Research (3)
Prerequisite: CRJU 504.
Qualitative research methodologies for studying criminal behavior and criminal justice system participants. Students will develop, implement, analyze, and write a qualitative research project while adhering to ethical responsibilities regarding human subjects, natural settings, and the dissemination of research.

690. Selected Topics in Criminal Justice (3)
Advanced and specialized topics of current interest in the field of criminal justice selected for intensive development.
May be repeated to a maximum of 9 units with different topics in the same semester. Topics announced in the Schedule of Classes.

691. Instructional Strategies for Criminal Justice Professionals (3)
Prerequisites/Corequisites: Consent of instructor.
A structured program to teach graduate students how to create and deliver college-level instruction in criminal justice. Includes design of assignments within a measurable assessment framework; development of teaching strategies; and appropriate use of media and other pedagogical devices. May require time outside of semester format.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

694. Thesis I (3)
Prerequisites: Advancement to candidacy as a criminal justice master’s student.
Student works under direct faculty supervision to complete a proposal for the thesis research study. Review of the literature on a topic and development of appropriate methodology.
Not open for credit to students with credit in CRIM 695. Letter grade only (A-F).

695. Directed Readings/Independent Study (1-4)
Prerequisites: Consent of instructor.
For students who wish to learn about a topic related to criminology, criminal justice, or forensics in great detail through independent reading and writing assigned by a faculty member.
May be repeated to a maximum of 6 units.

697. Directed Research (1-4)
Prerequisites: Consent of instructor.
Extensive independent research on assigned topic addressing theoretical criminology and synthesis of literature on current issues in criminal justice.
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters.
DANCE
College of the Arts

Department Chair: Andrew Vaca
Department Office: Dance Center
Telephone / FAX: (562) 985-4747 / (562) 985-7896
Faculty: Rebecca Bryant, Karen Clippinger, Colleen Dunagan, Keith Johnson, Rebecca Lemme, Lorin Johnson, Dori Levy, Sophie Monat, Andrew Vaca
Administrative Coordinators: Jeniffer Fuentes-Mishica, Sylvia Rodriguez-Scholz

Career Possibilities
Dancer • Choreographer • Teacher • Dance Company Director • Dance/Movement Therapist • Booking Agent • Critic • Performing Arts Administrator • Dance Kinesiologist • Pilates Instructor • Dance/Aerobic Instructor (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Dance is a rigorous program that provides training in dance with a strong foundation in modern and ballet technique and choreography. Physical practice interfaces with theoretical study, placing dance in a historical, pedagogical, scientific, and cultural context. The Department also provides opportunities for the general university student through courses for the non-major. Performances, master classes and residencies also contribute to the artistic enhancement of the campus and community.

All new undergraduate students enter the major under the BA degree. A separate audition for entrance into the BFA degree is required when students have completed specific coursework and have achieved required levels of competency. Entrance to the major or minor in dance is by audition. Applicants may download audition information from the web or may contact the Department of Dance Office. Non-major classes are open to all students and do not require any audition.

The Department of Dance is an accredited institutional member of the National Association of Schools of Dance. Due to accreditation standards, new transfer students are expected to have trained in both ballet and modern dance technique each semester of their community college preparatory years in order to achieve the technical proficiency required for graduation.

Programs at a Glance
Bachelor of Arts
  Dance
  Option in Dance Science
Bachelor of Fine Arts
  Dance
Master of Arts
  Dance
Master of Fine Arts
  Dance

Undergraduate Programs

Bachelor of Arts in Dance (120 units)
The Bachelor of Arts in Dance provides students with a balanced course of study that helps to prepare them for careers as performers, educators, arts administrators, health and fitness specialists, and/or graduate study in dance.

Student Learning Outcomes
1. Majors will develop competency in modern dance and ballet, enabling them to pursue careers in education, health and fitness, professional arenas, or to further their academic dance pursuits.
2. Majors will gain an overview of the historical, cultural, and scientific dimensions of dance.
3. Majors will explore the fundamental skills and techniques necessary for the public performance of dance.
4. Majors will have practical experience in the production and technological aspects of dance.
5. Majors will be able to demonstrate an understanding of the craft and aesthetic qualities of dance orally, practically, and in writing.

Requirements
Composition (5 units):
  DANC 120 Improvisation (2)
    Prerequisite(s): Dance Majors, or Dance Minors who have completed DANC 112A, DANC 112B, or DANC 152.
  DANC 220 Composition I (3)
    Prerequisite: DANC 120. Corequisite: DANC 131.

Theory (21 units):
Take all the following courses:
  DANC 100 Orientation to Dance (1)
    Prerequisite: Dance Major
  DANC 131 Introduction to Music for Dance (2)
    Prerequisites: Dance Major or Minor
  DANC 161 Placement for the Dancer (2)
    Prerequisites: Dance Major.
  DANC 260 Functional Anatomy for the Dancer (3)
    Prerequisites: DANC 161 or consent of the instructor.
  DANC 261 Anatomy with Clay Laboratory (1)
    Prerequisites: DANC 161 or consent of the instructor. Corequisites: DANC 260 or consent of the instructor.
  DANC 361 Pilates I (3)
    Prerequisites: Dance Major or Minor, DANC 260; or consent of instructor.
  DANC 442 Dance and Social Identity in the U.S. (3)
    Prerequisites: Completion of GE Foundation requirements. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Take one of the following courses:
  DANC 470A Dance Pedagogy (3)
    Prerequisites: Upper division standing, or consent of
instructor.

DANC 470B Ballet Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.

DANC 475 Dance for Children (3)
Prerequisites: Upper division standing, or consent of instructor.

Take one of the following courses:
DANC 491A Design for Dance Lighting (3)
Prerequisites: Upper division standing or consent of instructor.

Requirements

Composition (5 units):
- DANC 120 Improvisation (2)
  Prerequisite(s): Dance Majors, or Dance Minors who have completed DANC 112A, DANC 112B, or DANC 152.
- DANC 220 Composition I (3)
  Prerequisite: DANC 120. Corequisite: DANC 131.

Theory (40 units):
- DANC 100 Orientation to Dance (1)
  Prerequisite: Dance Major
- DANC 131 Introduction to Music for Dance(2)
  Prerequisites: Dance Major or Minor
- DANC 260 Functional Anatomy for the Dancer (2)
  Prerequisites: Dance major.
- DANC 261 Anatomy with Clay Laboratory (1)
  Prerequisites: DANC 161 or consent of the instructor.
  Corequisites: DANC 260 or consent of the instructor.
- DANC 361 Pilates I (3)
  Prerequisites: Dance Major or Minor, DANC 260; or consent of instructor.
- DANC 362 Pilates II (2)
  Prerequisites: Dance Major or Minor, DANC 361; or consent of instructor.
- DANC 442 Dance and Social Identity in the U.S. (3)
  Prerequisites: Completion of GE Foundation requirements. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
- BIOL 207 Human Physiology (4)
  Prerequisites: GE Foundation requirements.
- BIOL 208 Human Anatomy (4)
  Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

Student Learning Outcomes
1. Majors will be able to perform a qualitative anatomical analysis of standing alignment and key dance vocabulary, as well as provide exercises and cues for their improvement.
2. Majors will be able to execute and cue Pilates repertoire designed to enhance dance performance, movement coordination and physical conditioning.
3. Majors will demonstrate an understanding of key anatomical and biomechanical principles for preventing dance injuries and promoting optimal technique when training as dancers or teaching dance technique.
4. Majors will attain an understanding of theoretical and practical scientific concepts of movement to help prepare them for pursuing further degrees or certifications in dance science or related fields.
5. Majors will develop competency in modern dance and ballet, enabling them to pursue careers in education, health and fitness, professional arenas, or to further their academic dance pursuits.
6. Majors will gain an overview of the historical, cultural, and scientific dimensions of dance.
7. Majors will be able to demonstrate an understanding of the craft and aesthetic qualities of dance orally, practically, and in writing.

Option in Dance Science (120 units)

Admission into the program begins with admittance into the BA in Dance including an entrance and placement audition and fulfillment of all university entrance requirements. Additionally, students must pass DANC 260 and DANC 261 with a grade of B or better before submitting a Change of Major form to the Program Coordinator and Chair.
KIN 300 Biomechanics of Human Movement (3)
Prerequisites: BIOL 208 or equivalent; KIN 201.

KIN 301 Exercise Physiology (3)
Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.

KIN 312 Motor Control and Learning (3)
Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.
Prerequisite(s)/Corequisite(s): KIN 201 applies to Kinesiology majors.

PSY 100 General Psychology (3)
Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

Select one of the following courses:
DANC 470A Dance Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.

DANC 470B Ballet Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.

Performance/Crew (2 units):
Take one unit from the following courses:
DANC 181A, DANC 181B, DANC 381A, DANC 381B, DANC 481A, DANC 481B
Take one unit from the following courses:

Technique (20 units):
Take nine units from the following courses:
DANC 152, DANC 252, DANC 312
Take nine units from the following courses:
DANC 154, DANC 254, DANC 314
Take two units from the following courses:
DANC 216, DANC 312, DANC 314, DANC 316
Three units from the following courses:
ATEP 309; KIN 315, KIN 339, KIN 368, KIN 430; NUTR 132

Bachelor of Fine Arts in Dance (132 units)
The Bachelor of Fine Arts in Dance is designed to prepare students for professional careers as performers and/or choreographers. All students wishing to pursue the BFA in Dance must demonstrate strong technical skill and must audition after successfully completing the following course work with a minimum GPA of 3.0: DANC 120; 6 units from DANC 152 and/or 252; 6 units from DANC 154 and/or 254; and one unit from DANC 181A, 181B, 381A, 381B. If students are enrolled in requirements at the time of the audition, they may audition with a signed Grade In Progress form from the instructors of the in-progress courses. Students may not apply after they have completed 90 units.

Student Learning Outcomes
1. Majors will demonstrate proficient skills and technique in modern dance and ballet, with competency in jazz dance and/or other forms, enabling them to pursue professional dance careers.
2. Majors will demonstrate competencies in choreographic processes that support the development of creative and collaborative professional opportunities.
3. Majors will demonstrate substantial knowledge of the historical and scientific dimensions of dance, to give depth and perspective to the performance and pedagogical aspects of the dance discipline.
4. Majors will develop and demonstrate current methods and relevant strategies necessary to pursue professional careers in dance and dance-related fields.
5. Majors will demonstrate the skills necessary to analyze and review dance, both orally and in writing the history, concepts, and aesthetic qualities of dance.
6. Majors will demonstrate selected practical skills in the production and technological aspects of dance.

Requirements
Composition (8 units):
Take all the following courses:
DANC 120 Improvisation (2)
Prerequisite(s): Dance Majors, or Dance Minors who have completed DANC 112A, DANC 112B, or DANC 152.
DANC 220 Composition I (3)
Prerequisite: DANC 120. Corequisite: DANC 131.
DANC 320 Composition II (3)
Prerequisite: DANC 220.

Theory (29 units):
Take all the following courses:
DANC 100 Orientation to Dance (1)
Prerequisite: Dance Major
DANC 131 Introduction to Music for Dance(2)
Prerequisites: Dance Major or Minor
DANC 161 Body Placement (2)
Prerequisites: Dance major.
DANC 260 Functional Anatomy for the Dancer (3)
Prerequisites: DANC 161 or consent of the instructor.
DANC 261 Anatomy with Clay Laboratory (1)
Prerequisites: DANC 161 or consent of the instructor. Corequisites: DANC 260 or consent of the instructor.
DANC 361 Pilates I (3)
Prerequisites: Dance Major or Minor, DANC 260; or consent of instructor.
DANC 342 Global Cultures and Dance Traditions (3)
Prerequisites: Completion of GE Foundation requirements.
DANC 442 Dance and Social Identity in the U.S. (3)
Prerequisites: Completion of GE Foundation requirements. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
DANC 445 Movement Analysis (3)
Prerequisites: Open to Dance Majors and Minors only.
DANC 498 Senior Seminar in Dance (2)
Prerequisites: Senior standing in the BFA program or consent of instructor.

Select one of the following courses:
DANC 470A Dance Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.
DANC 470B Ballet Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.

Select one of the following courses:
DANC 491A Design for Dance Lighting (3)
Prerequisites: Upper division standing or consent of
DANC 491B Design for Dance Costuming (3)
Prerequisites: Upper division standing or consent of instructor.

Performance/Crew (7 units):
Take two units from the following courses:
DANC 181A, DANC 181B, DANC 381A, DANC 381B, DANC 481A, DANC 481B;
Take five units from the following courses:

Technique (26 units):
Take eleven units from the following courses:
(2 units must be earned from 312)
DANC 152, DANC 252, DANC 312, DANC 412
Take eleven units from the following courses:
(2 units must be earned from DANC 314)
DANC 154, DANC 254, DANC 314, DANC 414
Take two units from the following courses:
DANC 216, DANC 316
Take two units from the following courses:
DANC 412, DANC 414

General Education (3 units):
Take the following course:
DANC 373 Nonverbal Communication: Interaction of Mind and Body (3)
Prerequisites: GE Foundation requirements, completion of one or more Exploration course(s), and upper division standing.

Minor in Dance
Students may be admitted to the minor after completing 6 units in dance. Minors wishing to take major-level technique courses and/or perform must pass the Minor Technique Screening.

Students should consult the Dance Undergraduate advisor regarding ways by which requirements can be grouped into specialized tracks of study. For example, an introductory dance performance set might include DANC 113, DANC 115, and DANC 117; a set related to Africana Studies might include DANC 106, DANC 109, and DANC 342; a humanities track might include DANC 342, DANC 435, and DANC 442.

Requirements
20 units of which 3 must be upper division.

Technique (8 units):
Take the following course:
DANC 120 Improvisation (2)
Prerequisite(s): Dance Majors, or Dance Minors who have completed DANC 112A, DANC 112B, or DANC 152.
Take 4 units from the following courses:
DANC 111A or 111B, DANC 112A or 112B, DANC 152, DANC 252, DANC 254 (each course must be passed with a "B" or better, and may only be applied once)
Take 2 units from the following courses:

Graduate Programs

Master of Arts in Dance
The Master of Arts in Dance is a practice-oriented degree created to serve experienced dance educators, primarily in secondary and community college venues. It is designed to broaden and deepen dance knowledge and skills for teaching dance classes and producing dance concerts and elevates an undergraduate teaching credential to graduate status.

Because M.A. candidates are teaching during the academic year, coursework is completed in three intensive, 6-week consecutive summer sessions in which 9-12 units are earned each summer.

Student Learning Outcomes
1. Students will refine proficiency in modern dance movement vocabularies, enabling them to enhance their careers as educators.
2. Students will engage in theoretical inquiry and study in the dance-related areas of history, dance science, and pedagogy, enabling them to enhance their careers as educators.
3. Students will acquire practical skills in the areas of costume and lighting design.
4. Students will explore, practice, and actualize the craft of making dances to communicate a declared intention.

Criteria for Admission into the Program
Candidates must meet the following criteria for entrance into the M.A. in Dance:
1. Prerequisite Courses:
   • two courses in dance composition;
   • one course in dance history;
   • one course in anatomy/kinesiology (must be taken in the past five years);
2. Bachelor’s degree from an accredited institution with a degree in dance or a related field;
3. Minimum of 3 years experience teaching dance in a high school with a secondary teaching credential, or minimum of 3 years part-time or full-time experience teaching dance in a community college (exceptions will be considered for extensive part-time employment teaching dance in a high school, or for an exemplary employment history of teaching dance in other venues);
4. Three letters of recommendation, of which one must be from a supervisor or colleague;
5. Movement audition and personal interview;
6. Completion of all application materials.

Admission will be granted to students who show high promise of success in graduate study based on past academic record and record of teaching experience.

Retention Criteria
1. Maintain a GPA of 3.0 in all graduate work completed at CSULB;
2. Continued satisfactory progress toward degree objectives. Application materials and application cycles (normally a new class of M.A. candidates begins every three years) is posted at csulb.edu/dance.

Advancement to Candidacy
Students will be advanced to candidacy upon successful completion of the following:
1. Satisfy the general university requirements for advancement to candidacy and the department’s admission criteria;
2. Maintain a 3.0 GPA in all graduate coursework;
3. Fulfill the Graduation Writing Assessment Requirement (GWAR);
4. Complete a minimum of 21 units of coursework;
5. Removal of any incomplete grades;
6. Satisfactory completion of three artistic endeavors completed during the academic year utilizing student performers from the candidate’s school;
7. Filing of the student’s graduate program form for the Master of Arts in Dance, signed by the student’s graduate advisor, and approved by the Associate Dean for graduate accountability.

Requirements
1. Complete the following:
   Take 7 units from the following courses: DANC 510A, DANC 510B, DANC 510C, DANC 585A
   Take 6 units from the following courses: DANC 521, DANC 522
   Take 6 units from the following courses: DANC 591A, DANC 591B
   Take 12 units from the following courses: DANC 565, DANC 592, DANC 605, DANC 642
2. Successful completion of a Written Comprehensive Exam to be taken after all coursework has been satisfied.

Master of Fine Arts in Dance
This 60-unit plan of study emphasizes choreographic exploration and presentation in addition to preparation for potential teaching careers in higher education. The program integrates the MFA candidate into the Department through theoretical and practice-based study, teaching opportunities, production preparation and study, and a thesis project that includes presentation of original choreography on the CSULB campus.

The Department of Dance has chosen to keep the MFA degree program small and selective in order to provide adequate resources to all students in the degree plan. Though the Department seeks candidates whose experiences include professional-level investigation and activity beyond baccalaureate study, choreographers of any genre of movement or dance practice are encouraged to apply to the MFA in Dance.

Student Learning Outcomes
1. Students will explore, practice, and actualize the craft of making dances to communicate a declared intention.
2. Students will refine proficiency in dance/movement vocabularies, enabling them to pursue careers in the professional arenas of performance/choreography and/or education.
3. Students will engage in theoretical inquiry and study in the dance-related areas of history, music, film/video, aesthetics, dance science, and dance criticism.
4. Students will attain substantial knowledge/practical skills in preparation for teaching, including theoretical, practical, and kinesiological perspectives.
5. Students will acquire practical skills in the production aspects of dance, including collaboration with artists/designers and technical personnel, dance concert direction/production, technical theater equipment operation, stage management, and publicity.

Criteria for Admission into the Program
Candidates admitted into this program will be selected on the following criteria:
1. Meet University admissions requirements;
2. B.A., B.F.A., or M.A. degree in dance or equivalent with a 3.0 GPA in upper division dance courses;
3. Professional goals consistent with the plan of study;
4. Life experiences in the field;
5. Audition in performance and choreography.

All MFA candidates are admitted on a conditional status. Removal of the conditional admit will occur after the following:
1. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
2. Completion of all prerequisites;
3. Completion of 20 graduate dance units with a GPA of 3.0;
4. Approval of Graduate Advisor.

Prerequisites
Intermediate or advanced technique in at least one movement practice, Dance Composition and/or Improvisation (3 courses) or substantial demonstrated training and experience in dance making, Undergraduate degree in dance or undergraduate degree in any field plus substantial training and experience in the field of dance. Undergraduate degree with a cumulative 2.5 GPA or higher.

Application Requirements
1. A CSULB post-baccalaureate application via CSU Mentor (includes official transcript and application fee).
2. The following returned to the CSULB Department of Dance (visit CSULB Department of Dance website for further explanation):
   A. Cover letter;
   B. Resume or curriculum vitae;
   C. 3 letters of reference;
   D. 2 choreographic works (at least one group work of 3 or more people) posted to Vimeo or Youtube and a 1-page statement that provides the following: a discussion of the intent, process and goals for each work submitted, credits (titles, composers, and other production credits) and performers (including the candidate if performing);
   E. 3-page (double spaced) statement of purpose addressing how professional goals will be met through this plan of study. Within this statement, reflect upon current artistic vision and where you would like to see expansion in your creative practice and work in the field.
3. Audition on the CSULB campus to include a warm-up, composition/improvisation session, presentation of a 3-5 minute self-choreographed solo demonstrating technical proficiency and choreographic skill, and an interview with Department faculty.

Advancement to Candidacy
Advancement to candidacy will occur based on the following:
1. Unconditional admission status;
2. Completion of 30 graduate dance units with a GPA of 3.0;
3. Successful choreography produced in a graduate concert;
4. Evaluation by graduate faculty of the candidate’s satisfactory progress toward the degree;
5. Removal of any incomplete grades.

Performance/Choreography Concentration
Take 4 units from the following courses:
DANC 511A MFA Technique Laboratory (2)
Prerequisite: Admission into the MFA degree program
DANC 511B MFA Technique Laboratory (2)
Prerequisite: Admission into the MFA degree program
Take 21 units from the following courses:
DANC 505, DANC 506, DANC 565, DANC 570, DANC 588, DANC 597, DANC 605, DANC 693
Take 12 units from the following courses:
DANC 520A, DANC 520B, DANC 520C, DANC 520D
Take 5 units from the following courses:
DANC 581, DANC 585A, DANC 585B
Take 6 units of the following course:
DANC 699 Thesis/Project
Prerequisite: Advance to Candidacy
Take 6 additional units from the following:
Take 6 units of additional coursework.

Courses (DANC)

Dance Technique
Note: Dance majors must take technique courses and composition in sequence and screen for level placement in all technique classes. Screening will take place the previous semester and the first day of class. Beginning non-major technique classes are not screened; they are open to all students. DANC 216, Intermediate/Advanced Jazz, and DANC 316, Advanced Jazz, have a screening process.

LOWER DIVISION
100. Orientation to Dance (1)
Prerequisite: Dance Major
Introductory information, degree requirements, career opportunities, current problems and issues in the field.
Letter grade only (A-F).
101. Introduction to Modern Dance (3)
Prerequisite: GE Foundation requirements.
Exploration of modern dance concert dance art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in modern dance technique.
Not open for credit to dance majors.
102. Introduction to Ballet (3)
Prerequisite: GE Foundation requirements.
Exploration of ballet as concert dance art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in ballet technique.
Not open for credit to dance majors.
103. Introduction to Jazz (3)
Prerequisite: One GE Foundation course.
Introduction to jazz dance as concert and entertainment art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in jazz technique.
Open only to non-dance majors.
104. Introduction to Tap (3)
Prerequisite: One GE Foundation course.
Introduction to tap as concert and entertainment art form through the study of its aesthetic principles and characteristics. Lectures and video viewing identify major choreographers, performers, choreographic works, and historical development; movement sessions explore elementary exercises in tap technique.
Not open for credit to dance majors.
105. Latin Jazz (2)
Basic skills and techniques in Latin Jazz.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (1 hour discussion, 2 hours studio).

106. African Dance (2)
Basic skills and technique in African dance designed to incorporate its role in African culture.
May be repeated to a maximum of 4 units in different semesters. (1 hour discussion, 2 hours studio).

108. Beginning Flamenco (2)
Basic skills and technique in the style of Flamenco dance designed to incorporate its role in Spanish culture.
May be repeated to a maximum of 4 units in different semesters. (1 hour discussion, 2 hours studio).

109. Beginning Hip-Hop (2)
Basic skills and technique in the style of Hip-Hop dance.
May be repeated to a maximum of 4 units in different semesters. (1 hour discussion, 2 hours studio).

110. Viewing Dance (3)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to contemporary dance theater through viewing dance films (modern dance, ballet and ethnic), dance performances, and lecture/discussions on dance.

111A. Beginning Modern Dance (2)
Basic skills and techniques in modern dance.
Not open to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

111B. Beginning Modern Dance (2)
Prerequisite: None.
Continuing beginning skills and techniques in modern dance.
Not open to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

112A. Intermediate Modern Dance (2)
Prerequisite: DANC 111A or 111B or consent of instructor. Open to non-majors.
Low intermediate skill and techniques in modern dance.
May be repeated to a maximum of 8 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

112B. Intermediate Modern Dance (2)
Prerequisite: DANC 111A or 111B or consent of instructor. Open to non-majors.
Intermediate skill and techniques in modern dance.
May be repeated to a maximum of 8 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

113A. Beginning Ballet (2)
Basic skills and techniques in ballet. Not open to dance majors.
May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

113B. Beginning Ballet (2)
Prerequisite: DANC 113A or consent of instructor.
Continuing beginning skills and techniques in ballet. Not open to dance majors.
May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

114A. Intermediate Ballet (2)
Prerequisite: DANC 113B or consent of instructor. Open to non-majors.
Low intermediate skill and techniques in ballet.
May be repeated to a maximum of 8 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

114B. Intermediate Ballet (2)
Prerequisite: DANC 113B or consent of instructor. Open to non-majors.
Intermediate skill and techniques in ballet.
May be repeated to a maximum of 8 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

115. Beginning Jazz (2)
Basic skills and techniques of jazz.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

116. Intermediate Jazz (2)
Prerequisite: DANC 115 of consent of instructor.
Basic theory and practice of modern jazz dance.
May be repeated to a maximum of 8 units in different semesters. (4 hours studio).

117. Beginning Tap Technique (2)
Basic technique in the tap dance idiom, time steps, stylistic patterns, rhythmic patterns and tap combinations.
May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

119. Dance Activity I (1-2)
Basic skills and techniques in ballet, jazz, or modern dance technique.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (2-4 hours studio).

120. Improvisation I (2)
Prerequisite(s): Dance Majors, or Dance Minors who have completed DANC 112A, DANC 112B, or DANC 152.
Use of improvisation as an introduction to structural form; individual and group problems.
Letter grade only (A-F). (4 hours studio).

131. Introduction to Music for Dance (2)
Prerequisite(s): Dance Major or Minor
Basic music notation, simple and complex rhythmic patterns, poly-rhythms, skill in the use of percussion instruments and a brief survey of the historical periods of music for dance.
Letter grade only (A-F). (4 hours studio).

152. Modern Technique I (3)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate skill in modern dance technique.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (6 hours studio).

154. Ballet Technique I (3)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate skill in ballet technique.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (6 hours studio).
161. Placement for the Dancer (2)
Prerequisites: Dance major.
Application of movement principles and exercises from various sources including anatomy, biomechanics and rehabilitation to improve body alignment, core stabilization, and other aspects of technique in key dance movement patterns.
Letter grade only (A-F). (4 hours studio).

180A. Dance Performance (1)
Prerequisites: Dance major, audition.
Participation in dance productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (2 hours studio).

180B. Dance Performance (1)
Prerequisites: Dance major, audition.
Participation in dance productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (2 hours studio).

181A. Dance Production Technical (1)
Prerequisite(s): Dance Major.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (2 hours studio).

181B. Dance Production Technical (1)
Prerequisite(s): Dance Major.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (2 hours studio).

200. Ballet History in Western Culture (3)
Prerequisites: Any GE Foundation Course.
Historical survey of the cultural development of ballet from the Renaissance to the early 20th century in Europe and Russia, and until 1950 in the United States. (3 hours lecture).
Letter grade only (A-F).

214. Ballet Pointe (1)
Prerequisite: Consent of instructor.
Development of the technique of dancing in pointe shoes.
May be repeated to a maximum of 4 units in different semesters. (2 studios hours).

216. Intermediate/Advanced Jazz (2)
Prerequisites: DANC 116 and placement screening, or consent of instructor.
Intermediate/advanced theory and practice of modern jazz dance. May be repeated to a maximum of 8 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

217. Intermediate Tap Technique (2)
Prerequisite: DANC 117 or placement screening.
Intermediate skills in tap technique concentrating on rhythmic complexity, heightened tempos, and contemporary tap styles. May be repeated to a maximum of 4 units in different semesters. (4 hours studio).

219. Dance Activity II (1-2)
Intermediate skills and techniques in ballet, jazz, or modern dance technique.
Not open for credit to dance majors. May be repeated to a maximum of 4 units in different semesters. (2-4 hours studio).

220. Dance Composition I (3)
Prerequisites: DANC 120.
Corequisites: DANC 131.
Theory and practice in the basic elements of dance composition. Letter grade only (A-F). (1 hour lecture, 4 hours studio).

252. Modern Technique II (3)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate skill in modern dance technique. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (6 hours studio).

254. Ballet Technique II (3)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate skill in ballet technique. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (6 hours studio).

260. Functional Anatomy for the Dancer (3)
Prerequisites: DANC 161 or consent of the instructor.
A thorough examination of major muscles, bones and joints as they relate to human movement. Performance of anatomical analyses of common conditioning exercises and key dance movements. Letter grade only (A-F). (2 hours lecture, 2 hours studio).

261. Anatomy with Clay Laboratory (1)
Prerequisites: DANC 161 or consent of the instructor.
Incorporates rendering muscles on manikens® with clay (user of Anatomy in Clay Learning Systems®) to aid in developing a three dimensional understanding of the location and actions of musculature vital for human movement. Letter grade only (A-F). (2 hours lab).

295. Repertory (1-3)
Prerequisites: Audition, dance major.
Experience in rehearsal and performance practice in an intensive format. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (2-6 hours studio).

UPPER DIVISION

312. Modern Technique III (2)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate/advanced skill in modern dance technique. Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (6 hours studio).

313. Modern Dance Workshop (1-3)
Prerequisites: Dance major or minor or consent of instructor.
Exploration of the techniques of modern dance. May be repeated to a maximum of 6 units in different semesters. (2-6 hours studio).

314. Ballet Technique III (2)
Prerequisites: Placement screening; Dance Major or Minor who passed Minor Technique Screening.
Intermediate/advanced skill in ballet technique. Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (6 hours studio).
315. Ballet Workshop (1-3)  
Prerequisites: Dance major and minor or consent of instructor.  
Exploration of the techniques of ballet.  
May be repeated to a maximum of 6 units in different semesters. (2-6 hours studio).

316. Advanced Jazz (2)  
Prerequisites: DANC 216 and placement screening, or consent of instructor.  
Advanced theory and practice of jazz technique.  
May be repeated to a maximum of 12 units in different semesters. Dance majors/minors must take for letter grade. (4 hours studio).

317. Advanced Tap Technique (2)  
Prerequisites: DANC 117 and DANC 217 or consent of instructor.  
Advanced skills in tap technique concentrating on rhythmic complexity, heightened tempos, improvisational work, and contemporary tap styles.  
May be repeated to a maximum of 8 units in different semesters. (4 hours studio)

319. Dance Laboratory (1-3)  
Participation in dance technique projects. Consent of instructor.  
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (2 hours studio per unit.).

320. Dance Composition II (3)  
Prerequisite: DANC 220.  
Development of theme and style in small group studies.  
Letter grade only (A-F). (1 hour lecture, 4 hours studio).

321. Directed Choreography (1-3)  
Prerequisites: Consent of instructor.  
Independent choreographic projects finalized in a performance venue under supervision of a faculty member.  
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (3/4 - 2 1/4 hours studio).

342. Global Cultures and Dance Traditions (3)  
Prerequisite: Completion of GE Foundation requirements.  
Comparison of dance practices within diverse world cultures.  
Letter grade only (A-F). (3 hours lecture).

361. Pilates I (3)  
Prerequisites: Dance Major or Minor, DANC 260; or consent of instructor.  
Beginning-intermediate level Pilates-based program, emphasizing the use of the Pilates apparatus, designed to enhance dance performance, movement coordination and physical conditioning.  
Letter grade only (A-F). (1 hour seminar, 4 hours studio).

362. Pilates II (2)  
Prerequisites: Dance Major or Minor, DANC 361; or consent of instructor.  
Intermediate-advanced level. Pilates-based conditioning program which employs a series of exercises designed to enhance dance performance and prevent injury, utilizing apparatus based on designs of Joseph Pilates, exercise balls, free weights and body for resistance.  
Letter grade only (A-F). (4 hours studio).

373. Nonverbal Communication: Interaction of Mind and Body (3)  
Prerequisites: GE Foundation requirements, completion of one or more Exploration course(s), and upper division standing.  
History and theories of the development of mind/body integration.  
Enhancement of personal and interpersonal relations through lectures, discussion, films and movement experiences. Analysis and synthesis of the interdependence of the psychological and physical processes in nonverbal communication. Not open for credit to students with credit in ED P 373.

380A,B. Dance Performance (1,1)  
Prerequisite: Dance Major or Minor, audition.  
Participation as a performer and/or choreographer in Dance Department productions. Concert participation is by audition only.  
A combination of 380A,B and 480A,B may be repeated to a maximum of 8 units. (3 or more hours studio).

381A. Dance Production Technical (1)  
Prerequisites: Open to dance majors and minors.  
Technical production participation in Dance Department sponsored productions.  
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated to a total of 8 units. (2 hours or more studio).

381B. Dance Production Technical (1)  
Prerequisites: Open to dance majors and minors.  
Technical production participation in Dance Department sponsored productions.  
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated to a maximum of 8 units. (2 hours or more studio).

412. Advanced BFA Modern Technique (2)  
Prerequisites: BFA Dance Major, and placement screening.  
Advanced skill in modern dance technique.  
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (6 hours studio).

414. Advanced BFA Ballet Technique (2)  
Prerequisites: BFA Dance Major, and placement screening.  
Advanced skills in ballet technique.  
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (6 hours studio).

420. Advanced Composition (2)  
Prerequisite: DANC 320 or consent of instructor.  
Approaches to the development of choreographic materials of extended structure and content.  
Letter grade only (A-F). (4 hours studio).

426. Intermediate/Advanced Ballet Pointe (1)  
Prerequisites: DANC 214 of consent of instructor.  
Intermediate skill development in ballet pointe technique.  
May be repeated to a maximum of 4 units in different semesters. (2 hours studio).

435. Dance on Camera (3)  
Prerequisites: Completion of GE Foundation requirements, one or more Exploration course(s), and upper division standing.  
Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. (3 hour Lecture)  
Examination of the relationship between dance and film; study of historical and theoretical connections placed in both aesthetic and cultural contexts.

442. Dance and Social Identity in the U.S. (3)  
Prerequisite: Completion of GE Foundation requirements.  
Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.  
Development of dance in the American context and its socio-cultural influences and concert forms.  
Letter grade only (A-F). (2 hours lecture, 2 hours studio).
445. Movement Analysis (3)
Prerequisites: Open to Dance Majors and Minors only.
Study of the principles underlying movement and their application to all areas of movement study.
Letter grade only (A-F). (Lecture 2 hours, 2 hours studio)

470A. Dance Pedagogy (3)
Prerequisite: Upper division standing, or consent of instructor.
Methods of teaching dance technique for studios, recreation departments, companies, secondary schools, colleges, and universities. Emphasis on teaching teenagers and adult beginners.
Letter grade only (A-F). (2 hours lecture, 2 hours studio).

470B. Ballet Pedagogy (3)
Prerequisites: Upper division standing, or consent of instructor.
Methods of teaching ballet technique for studios, recreation departments, companies, secondary schools, colleges, and universities. (1 hour lecture, 4 hours studio).
Letter grade only (A-F).

475. Dance for Children (3)
Prerequisite: Upper division standing, or consent of instructor.
Practical experience in teaching creative dance to children. Includes improvisational approaches to teaching elements of dance, exploration and practical implementation of teaching and learning theories, and incorporation of the California Visual and Arts dance standards into elementary school curriculum.
Letter grade only (A-F). (2 hours lecture, 2 hours studio).

480A,B. Dance Performance (1,1)
Prerequisite: Dance majors, audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production. Most concert participation is by audition only.
A combination of 380A,B and 480A,B may be repeated to a total of 8 units. (3 or more hours studio).

481A. Dance Production-Technical (1)
Prerequisites: Dance Major.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated to a total of 8 units. (2 hours or more studio).

481B. Dance Production-Technical (1)
Prerequisites: Dance Major.
Technical participation in Dance Department-sponsored productions.
Letter grade only (A-F). A combination of 381A,B and 481A,B may be repeated to a total of 8 units. (2 hours or more studio).

490. Selected Topics in Dance (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in the field of dance selected for special presentation and development.
May be repeated to a maximum of 12 units with different topics in different semesters or consent of department chair. Topics announced in the Schedule of Classes.

491A. Design for Dance Lighting (3)
Prerequisites: Upper division standing or consent of instructor.
Techniques of designing lighting for dance. Practical applications include designing and executing lighting for dance for concerts in various settings.
Letter grade only (A-F). (1 hour lecture, 4 hours studio).

491B. Design for Dance Costuming (3)
Prerequisites: Upper division standing or consent of instructor.
Designing and constructing costumes for dance.
Letter grade only (A-F).

495. Repertory (1-3)
Prerequisite: Dance major, Audition.
Students learn and perform works of distinguished choreographers. Leads to concert performance.
May be repeated to a maximum of 18 units provided it is with a different instructor each time. (2-6 hours studio).

498. Senior Seminar in Dance (2)
Prerequisite: Senior standing in the BFA program or consent of instructor.
Culmination of undergraduate study resulting in individual projects that vary according to artistic, intellectual, and career goals.
Letter grade only (A-F). (1 hour seminar, 2 hours activity).

499. Directed Studies in Dance (1-3)
Prerequisite: Consent of instructor.
Independent projects and research of advanced nature in any area of dance.
Letter grade only (A-F). Course may be repeated to a maximum of 12 units in different semesters. (2-6 hours studio).

GRADUATE LEVEL

505. Dance Pedagogy (3)
Prerequisite: Acceptance into MFA program or consent of advisor.
Theory and methods specific to the teaching of dance technique in secondary and post-secondary education.
Letter grade only (A-F). (1 hour lecture, 4 hours studio).

506. Teaching Practicum (1)
Prerequisites: Acceptance into the MFA program in Dance.
Seminar in the practical application of effective teaching practices for MFA teaching assistants.
Letter grade only (A-F).
May be repeated to a maximum of 2 units in different semesters. (1 hour seminar)

510A,B,C. Technique Laboratory (1-3, 1-3, 1-3)
Prerequisite: Admission into the MA or MFA degree program.
Intermediate to intermediate/advanced skill in modern dance technique for the graduate student.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (2-6 hours studio).

511A. MFA Technique Laboratory (2)
Prerequisites: Admission into the MFA degree program.
Technical dance skill for the graduate student.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (6 hours studio).

511B. MFA Technique Laboratory (2)
Prerequisites: Admission into the MFA degree program.
Technical dance skill for the graduate student.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (6 hours studio).
512. Advanced Modern Technique (2)
Prerequisites: Placement screening.
Advanced skill in modern dance technique for the graduate student.
Letter grade only (A-F). May be repeated to a maximum of 12 units in different semesters. (6 hours studio).

514. Advanced Ballet Technique (2)
Prerequisite: Placement screening.
Advanced skill in ballet technique for the graduate student.
Letter grade only (A-F). May be repeated to a maximum of 12 units in different semesters. (6 hours studio).

520A. Choreography A (3)
Prerequisite: Admission into the MFA degree program.
Will center on development of advanced approaches to choreographic materials and techniques. It will emphasize outlining of artistic ideas in written form before physical realization, and will emphasize composing and shaping choreography based on clearly stated concepts.
Letter grade only (A-F). (4 hours activity; 1 hour discussion).

520B. Choreography B (3)
Prerequisite: Admission into the MFA program for dance.
Methods and practice of developing choreography utilizing music/composers as the basis for compositional exploration.
Letter grade only (A-F). (4 hours activity; 1 hour discussion).

520C. Choreography C (3)
Prerequisite: Admission into the M.F.A. program.
Advanced study of choreographic methods concentrating on development of choreography inspired by, and relating to, other art forms. Compositional studies geared to traditional theatrical venues and alternate performing venues will be explored.
Letter grade only (A-F). (4 hours activity; 1 hour discussion).

520D. Choreography D (3)
Prerequisite: Admission into the M.F.A. program.
Concentrates on development of dance choreography designed for presentation through video, and video used as an integrated/supporting form in live performance. Emphasizes skills and techniques in the exploration of dance documentation and the shooting and editing of digital video.
Letter grade only (A-F). (4 hours activity; 1 hour discussion).

521. Dance Composition III (3)
Prerequisite: Admission to the MA degree program in Dance.
Methods and practice of developing choreography as related to the high school and community college setting.
Letter grade only (A-F). (1 hour lec., 4 hours lab).

522. Composition IV (3)
Prerequisite: Admission into the MA degree program.
Methods and practice in developing more advanced choreographic studies related to a high school or community college setting.
Letter grade only (A-F). (4 hours studio; 1 lecture hour).

565. Dance Science as Related to Teaching Technique (3)
Prerequisite: DANC 260 and DANC 505, or consent of instructor.
Application of anatomical principles, scientific principles of training, and biomechanical principles to more effectively design and teach dance technique classes.
Letter grade only (A-F). (1 hour lec., 4 hours lab).

570. Practical Research Methods in Dance (3)
Prerequisites: Acceptance into the MFA program in Dance or consent of Graduate Advisor.
Instruction in practice-based research, including developing a choreographic research question, conducting research, writing the research proposal, and creating a properly formatted annotated bibliography.
Letter grade only (A-F). Course may be taught in hybrid or distance learning format. (3 hours seminar).

580A. Dance Performance (1)
Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (2 or more hours studio).

580B. Dance Performance (1)
Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (2 hours studio).

581. Graduate Dance Production (3)
Prerequisites: Acceptance into the MFA program in Dance.
Instruction and practical experience in producing a CSULB MFA dance concert.
Letter grade only (A-F); (2 hours seminar, 2 hours studio).

585A. Dance Performance (1)
Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (2 hours studio).

585B. Dance Performance (1)
Prerequisite: Audition.
Participation as a performer and/or choreographer in Dance Department approved University-sponsored production.
Letter grade only (A-F). May be repeated to a maximum of 2 units. (2 hours studio).

588. Seminar in Dance Management (2)
Techniques and practices in producing and promoting dance performances in fixed sites and in touring venues relevant to the production of MFA thesis concerts and to venues outside the University. For graduate students with prior experience in the field.
Letter grade only (A-F).

590. Selected Topics in Dance (1-3)
Prerequisite: Acceptance into MFA program in dance.
Topics of current interest to graduate students in dance will be selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in Schedule of Classes.

591A. Advanced Design for Dance Lighting (3)
Provides students with advanced work in design lighting for dance, and offers the in-depth technical knowledge and practical experience necessary to the execution of complete lighting plots.
Letter grade only (A-F). (6 hours studio).

591B. Advanced Design for Dance Costuming (3)
Provides graduate students with advanced coursework in designing costumes for dance, and with skills necessary to execute the designs.
Letter grade only (A-F). (6 hours studio).
592. Selected Topics in Dance (1-3)
Prerequisite: Acceptance into MFA program in dance.
Topics of current interest to graduate students in dance will be selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (2-6 hours studio).

595. Repertory (1-3)
Prerequisite: Audition.
For graduate dance majors to learn more advanced works from the repertoire of noted choreographers or to have new works created on the students by distinguished choreographers.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (2-6 hours studio).

597. Criticism and Analysis of Dance (3)
Prerequisite: Acceptance into the graduate degree programs in dance.
Introduction to dance studies through viewing historical and contemporary choreography and readings in criticism, aesthetics, and theory. Writing and choreographic lab experiences.
Letter grade only (A-F). (2 hours lecture, 2 hours activity).

599. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Individual research or project under the guidance of a faculty member.
May be repeated to a maximum of 12 units in different semesters. (2-6 hours studio) Letter grade only (A-F).

605. Seminar in Dance (2-3)
Prerequisites: Acceptance into the MA or MFA in Dance.
Will be conducted as a seminar. Literature, including research appropriate to the particular topic of the course, will be examined and discussed.
Letter grade only (A-F).

642. Seminar in Dance History (3)
Intensive study of selected topics in the History of Dance.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

693. Teaching Internship (1-3)
Prerequisite: Acceptance into the M.F.A. program in Dance.
Opportunity to work with full-time Dance faculty member in course preparation and instruction in one area of dance theory.
Letter grade only (A-F).

698. Thesis/Project (1-6)
Prerequisite: Advancement to candidacy.
Planning, preparation, and completion of a thesis/project in dance for the M.A. degree.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

699. Thesis/Project (1-6)
Prerequisite: Advancement to Candidacy.
Planning, preparation, and completion of thesis/project in dance for the M.F.A. degree.
Letter grade only (A-F). May be repeated to a maximum of 6 units in the same semester.
Bachelor of Arts in Design (120 Units)

This liberal arts degree provides the opportunity for the student to gain a broad exposure to the discipline. In addition to receiving a foundation through the core courses, the curriculum enables students to tailor their studies with electives from inside or outside of the college.

Students interested in the BA program in Design should apply as early in their academic career as possible, but no later than 60 units.

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements
Lower Division:
Take a minimum of 6 units from the following courses:
DES 110 Foundation Design History (3)
Prerequisite: None
DES 268: History and Theory of Sustainability in Design (3)
Prerequisite: Completion of GE Foundation requirements or consent of instructor.
AH 111A Foundation Art History I (3)
Prerequisite: One GE Foundation course
AH 111B Foundation Art History II (3)
Prerequisite: One GE Foundation course

Choose one from the following:
DES 141 Interior Architectural Drafting (3)
Prerequisite: None
DES 150 Design Drafting (3)
Prerequisite: None

Take all of the following courses:
DES 120A Fundamentals of Design (3)
"C" or better
Prerequisite: None
DES 120B Fundamentals of Design (3)
"C" or better
Prerequisite: DESN 120A or consent of instructor
Prerequisite/Corequisite: DESN 151.
DES 122A Perspective and Rendering Systems (3)
Prerequisite: None
DES 122B Perspective and Rendering Systems (3)
Prerequisites: DESN 122A or consent of instructor
DES 151 Design Materials and Tools (2)
Prerequisite: None
DES 232 Visualization Techniques (3)
Prerequisites: DESN 120B, DESN 132B or consent of instructor
DES 255 2D Computer-Aided Graphics (3)
Prerequisites: DESN 150 or DESN 141 or consent of instructor

Choose one from the following:
DES 141 Interior Architectural Drafting (3)
Prerequisite: None
DES 150 Design Drafting (3)
Prerequisite: None
Choose one of the following:
- DESN 156 3D Computer-Aided Design (3)
  Prerequisite: DESN 150 or consent of instructor
- DESN 246 Computer-Aided Drafting (3)
  Prerequisite: DESN 141 or consent of instructor

Upper Division:
Choose one of the following:
- DESN 346 Computer-Aided Design - 3D Modeling (3)
  Prerequisites: DESN 120B, DESN 151, DESN 232, DESN 246; and for BFA: DESN 312; and for BA: DESN 255; or consent of instructor
- DESN 356 Advanced 3D Computer-Aided Design (3)
  Prerequisites: DESN 120B, DESN 150, DESN 151, DESN 156, DESN 232, and DESN 255 or consent of instructor

Take all of the following courses:
- DESN 360A Environmental Communication Design (3)
  Prerequisites: 6 units from DESN 110, DESN 268, AH 111A, 111B, DESN 156 or DESN 246, DESN 232, DESN 255 and DESN 346 or DESN 356 or consent of instructor.
- DESN 360B Advanced Environmental Communication Design (3)
  Prerequisites: DESN 360A or consent of instructor. For Art majors: ART 327 or consent of instructor.
- DESN 450 BA Senior Project (3)
  Prerequisites: DESN 346 or DESN 356, DESN 360A, and 3 units of DESN History or consent of instructor.

Choose one of the following:
- DESN 368 History and Theory of Design (3)
  Prerequisite: Completion of GE Foundation requirements.
- DESN 369 History of Furniture and Decorative Arts (3)
  Prerequisite: Completion of GE Foundation requirements.

Take a minimum of 16 units from the following courses:

Additional Requirements
A total of 120 units is required for degree completion.
*Students must achieve "C" or better in each course required by the major.

Bachelor of Fine Arts in Interior Design (132 units)
This degree prepares students who will eventually seek a master's degree or a position as a professional designer. The BFA program is a rigorous and competitive one. Portfolios are reviewed in the spring semester for fall admission to Junior standing in this degree program.

Applicants to the BFA program must receive a positive recommendation following review of a portfolio submitted by the applicant. For BFA portfolio review consideration, a student must be enrolled in or have successfully completed DESN 245, DESN 255, DESN 312 and DESN 340 with a "C" or better.

Contact department for details of portfolio submission and review process.

Admission Under Impaction
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements

Take all of the following courses:
- DESN 120A Fundamentals of Design (3)
  Prerequisite: None
- DESN 120B Fundamentals of Design (3)
  Prerequisite: None
- DESN 132A Perspective and Rendering Systems (3)
  Prerequisite: None
- DESN 132B Perspective and Rendering Systems (3)
  Prerequisite: DESN 132A or consent of instructor.
- DESN 141 Interior Architectural Drafting (3)
  Prerequisite: None
- DESN 142 Beginning Space Planning (3)
  Prerequisites: DESN 120A, DESN 132A, DESN 141 and BFA Interior Design Major status; BA in Design with consent of instructor.
- DESN 143 Materials of Interiors (3)
  Prerequisites: DESN 142 or consent of instructor.
- DESN 151 Design Materials and Tools (2)
  Prerequisite: None
- DESN 232 Visualization Techniques (3)
  Prerequisites: DESN 120B, DESN 132B or consent of instructor.
- DESN 244 Lighting Design for Interior Architecture (3)
  Prerequisites: DESN 120B, DESN 132B and DESN 142 or consent of instructor.
- DESN 245 Building Systems for Interior Architecture (3)
  Prerequisites: DESN 142 or consent of instructor.
- DESN 246 Computer-Aided Drafting (3)
  Prerequisite: DESN 141 or consent of instructor.
- DESN 255 2D Computer-Aided Graphics (3)
  Prerequisites: DESN 150 or DESN 141 or consent of instructor.

Upper Division:
Take all of the following courses:
- DESN 312 Interior Architectural Model Building (3)
  Prerequisites: DESN 120B, DESN 132B, DESN 142 and DESN 151 or consent of instructor.
- DESN 340 Interior Design Process and Theory (3)
  Prerequisites: DESN 132B and 142 or consent of instructor.
- DESN 341A Interior Design (4)
  Prerequisites: DESN 244, DESN 245, DESN 246, DESN 312, DESN 340 and Junior standing in the Interior Design program or consent of instructor.
- DESN 341B Interior Design (4)
  Prerequisites: DESN 341A and Junior standing in the Interior Design program or consent of instructor.
- DESN 342 Interior/Architectural Presentations (3)
  Prerequisites: DESN 232, DESN 340, Junior standing in the Interior Design program. Corequisite: DESN 341A or consent of instructor.
- DESN 343 Advanced Drafting and Detailing (3)
  Prerequisites: DESN 245, DESN 312 and Junior standing in the Interior Design program or consent of instructor.
- DESN 346 Computer-Aided Design – 3D Modeling (3)
  Prerequisites: DESN 120B, DESN 151, DESN 232, DESN 246; and for BFA: DESN 312; and for BA: DESN 255; or consent of instructor.
- DESN 367 History and Theory of Architecture (3)
  Prerequisite: Completion of GE Foundation requirements.
Lower Division:

Requirements

Take 3 units from the following courses:

DESN 110 Foundation Design History (3)
Prerequisite: None

DESN 268 History and Theory of Sustainability in Design (3)
Prerequisite: GE Foundation Requirements or consent of instructor

AH 111A Foundation Art History I (3)
Prerequisite: Completion/current enrollment in GE A1 (Written Communication) requirement.

AH 111B Foundation Art History II (3)
Prerequisite: Completion/current enrollment in GE A1 (Written Communication) requirement.

Take all of the following courses:

DESN 120A Fundamentals of Design (3)
"C" or better
Prerequisite: None

DESN 120B Fundamentals of Design (3)
"C" or better
Prerequisite: DESN 120A or consent of instructor
Prerequisite/Corequisite: DESN 151.

DESN 132A Perspective and Rendering Systems (3)
Prerequisite: None

DESN 369 History of Furniture and Decorative Arts (3)
Prerequisite: Completion of GE Foundation requirements.

DESN 440 Professional Practice for Interior Architecture (3)
Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration courses, and upper division status. A score of 11 or higher on the GWAR Placement Examination, or completion of the necessary portfolio course required as a prerequisite for GWAR Writing Intensive Capstones. Corequisites: DESN 441A or consent of instructor.

DESN 441A Advanced Interior Design (4)
Prerequisites: DESN 341B, 343 or consent of instructor.

DESN 441B Advanced Interior Design (4)
Prerequisite: DESN 441A or consent of instructor.

A total of 132 units is required for degree completion. Students must achieve "C" or better in each course required by the major.

Bachelor of Science in Industrial Design (120 units)

This degree program is concerned with the relationship between technology and the visual arts. It includes background courses in engineering and sciences. Portfolio review is required for admission to the professional BS program. Portfolios are reviewed in the spring semester for fall admission to Junior standing in this degree program. Applicants to the BS program must receive a positive recommendation following review of a portfolio submitted by the applicant. For BS portfolio review consideration, a student must be enrolled in or have successfully completed DESN 280, 320 and 356 with a "C" or better. Contact department for details of portfolio submission and review process.

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Upper Division:

Take all of the following courses:

DESN 300 Designers in Their Own Words (3)
Prerequisites: 6 units from DESN 110, DESN 268, AH 111A, AH111B or consent of instructor.

DESN 320 Advanced Form Study (3)
Prerequisites: DESN 232 and consent of instructor.

DESN 332 Advanced Idea Generation for Designers (3)
Prerequisite: DESN 232 or consent of instructor.

DESN 331A Industrial Design (3)
Prerequisites: DESN 280 and Junior standing in the Industrial Design program or consent of instructor.

DESN 331B Industrial Design (3)
Prerequisites: DESN 331A and Junior standing in the Industrial Design program or consent of instructor.

DESN 333A Industrial Design Methodology (3)
Prerequisites: DESN 280 and Junior standing in the professional program or consent of instructor.

DESN 333B Industrial Design Methodology (3)
Prerequisites: DESN 333A and Junior standing in the Industrial Design program or consent of instructor.

DESN 356 Advanced 3D Computer-Aided Design (3)
Prerequisites: DESN 120B, DESN 150, DESN 151, DESN 156, DESN 232, and DESN 255.

DESN 368 History and Theory of Design (3)
Prerequisite: Completion of GE Foundation requirements.

DESN 431A Advanced Industrial Design (4)
Prerequisite: DESN 331B or consent of instructor.

DESN 431B Advanced Industrial Design (4)
Prerequisite: DESN 431A or consent of instructor.

DESN 435A Furniture Design (3)
Prerequisites: DESN 151, DESN 232; and for BS: DESN 331A; and for BFA: DESN 341A; and for BA: DESN 255 and DESN 346 or DESN 356; or consent of instructor.

DESN 132B Perspective and Rendering Systems (3)
Prerequisites: DESN 132A or consent of instructor

DESN 150 Design Drafting (3)
Prerequisite: None

DESN 151 Design Materials and Tools (2)
Prerequisite: None

DESN 154 Modeling and Prototyping Techniques (3)
Prerequisites: DESN 150 and DESN 151 or consent of instructor.

DESN 156 3D Computer-Aided Design (3)
Prerequisites: DESN 150 or consent of instructor.

DESN 232 Visualization Techniques (3)
Prerequisites: DESN 120B, DESN 132B or consent of instructor.

DESN 254 Production Materials and Techniques (3)
Prerequisites: DESN 154 and DESN 156 or consent of instructor.

DESN 255 2D Computer-Aided Graphics (3)
Prerequisites: DESN 150 or DESN 141 or consent of instructor

DESN 280 Industrial Design Processes (3)
Prerequisites/Corequisites: DESN 154, DESN 156, DESN 232 and DESN 255 or consent of instructor.
Additional Requirements

Take a minimum of 3 units chosen from the following:
PHSC 112; PHYS 100A, PHYS 151, PHYS 152;
CHEM 100; GEOL 102, GEOL 110, GEOL 160; BIOL 200, BIOL 205, BIOL 207.
A total of 120 units is required for degree completion.
*Students must achieve "C" or better in each course required by the major.

Courses (DESN)

LOWER DIVISION

110. Foundation Design History (3)
General survey of the history of design and its evolution through various stages leading to its current expression, analyzing the social influences and contributions of prominent designers of various periods.
Letter grade only (A-F).

120A-B. Fundamentals of Design (3-3)
Prerequisite for DESN 120A: none;
Prerequisite for DESN 120B: DESN 120A or consent of instructor.
Prerequisite/Corequisite for DESN 120B: DESN 151.
Systematic approach to process of designing dimensional objects including color theory, surface, volume investigation.
Letter grade only (A-F). (6 hours laboratory)

132A-B. Perspective and Rendering Systems (3-3)
Prerequisites: for DESN 132A: none; for DESN 132B: DESN 132A or consent of instructor.
Fundamentals of design drawing techniques include perspective, sketching, and rendering techniques for objects and environments.
Letter grade only (A-F). (6 hours laboratory)

141. Interior/Architectural Drafting (3)
Architectural drafting graphic techniques used in light framing, commercial construction with emphasis on interiors.
Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

142. Beginning Space Planning (3)
Prerequisites: DESN 120A, DESN 132A, DESN 141 and BFA Interior Design Major status; BA in Design with consent of instructor.
Fundamental skill development in space planning for interiors. Function, human factors, user experience, aesthetic, perceptual and code related factors are explored.
Letter grade only (A-F). (6 hours laboratory)

143. Materials of Interiors (3)
Prerequisites: DESN 142 or consent of instructor.
In-depth exploration of construction materials, finishes and furnishings, manufacturing processes, resources, sustainability and lifecycle issues related to interior architecture. Examination of materials technology, product innovations and applications through lecture, demonstration and field trips.
Letter grade only (A-F). (3 hours seminar) Not open for credit for students with credit in DESN 243.

150. Design Drafting (3)
Introduction to manual and computer-aided drafting. Includes orthographic and isometric views, cross sections, part and assembly drawing.
Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

151. Design Materials and Tools (2)
Hands-on experience with wood, metal, plastic materials, the technical tools for creating form. Includes appropriate safety instruction for use of power equipment.
Letter grade only (A-F). (4 hours laboratory)

154. Modeling and Prototyping Techniques (3)
Prerequisites: DESN 150, DESN 151 or consent of instructor.
Materials, processes, techniques for creating mock-ups, models, prototypes used by industrial designers.
Letter grade only (A-F). (6 hours laboratory)

156. 3D Computer-Aided Design (3)
Prerequisites: DESN 150 or consent of instructor.
Computer-aided modeling strategies techniques for depicting three-dimensional surfaces, solids.
Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

232. Visualization Techniques (3)
Prerequisites: DESN 120B, DESN 132B or consent of instructor.
Focus on design sketching and presentation skills utilizing industry standard techniques for both objects and environments.
Not open for credit to students with credit in DESN 232A. Letter grade only (A-F). (6 hours laboratory)

244. Lighting Design for Interior Architecture (3)
Prerequisites: DESN 120B, DESN 132B and DESN 142 or consent of instructor.
Exploration of fundamentals of natural and engineered light in architectural and interior space. Specific focus on lighting as it supports design, relates to energy efficiency and human factors.
Letter grade only (A-F). (6 hours laboratory)

245. Building Systems for Interior Architecture (3)
Prerequisites: DESN 142 or consent of instructor.
Fundamental applications of typical building systems (structural, mechanical, plumbing, electrical along with building energy efficiencies/assemblies) as they influence interior architectural design.
Letter grade only (A-F). (3 hours lecture)

246. Computer-Aided Drafting (3)
Prerequisite: DESN 141 or consent of instructor.
Principles, methods of computer graphic applications utilizing AutoCad. Computer drafting of commercial, residential projects.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. Course fee may be required. (6 hours of laboratory)

254. Production Materials and Technical Processes (3)
Prerequisites: DESN 154, DESN 156 or consent of instructor.
Study of production processes, industrial materials utilized in the manufacturing of products. Includes introduction to rapid prototyping.
Letter grade only (A-F). Course fee may be required. (6 hours laboratory)

255. 2D Computer-Aided Graphics (3)
Prerequisites: DESN 150 or DESN 141 or consent of instructor.
Introduction to computer-aided graphics and image manipulation. Composition with typography and image for presentation authoring. Technology and terminology for digital media processes.
Letter grade only (A-F). (6 hours laboratory) Course fee may be required. Not open for credit for students with credit in DESN 256.
Examination of methods, techniques in design problem solving. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.
Letter grade only (A-F). (6 hours laboratory)

333B. Industrial Design Methodology (3)
Prerequisites: DESN 333A and Junior standing in the Industrial Design program or consent of instructor.
Further examination of methods, techniques in design problem solving. Course requires student-owned laptop computer. See Department of Design website for current laptop hardware and software specifications.
Letter grade only (A-F). (6 hours laboratory)

340. Interior Design Process and Theory (3)
Prerequisites: DESN 132B and 142 or consent of instructor.
Development of design methodology and exploration of design ideas, processes and sustainability for solving limited scale problems in interior space.
Letter grade only (A-F). (6 hours laboratory) Not open for credit to students with credit in 241.

341A. Interior Design (4)
Prerequisites: DESN 340, DESN 312, DESN 244, DESN 245, DESN 246 and Junior standing in the Interior Design program or consent of instructor.
Focused explorations in the design of sustainable interior environments emphasizing interrelationships between space, architectural form, materials and human factors.
Letter grade only (A-F). (8 hours laboratory)

341B. Interior Design (4)
Prerequisites: DESN 341A and Junior standing in the Interior Design program or consent of instructor.
Further explorations in the design of sustainable interior environments emphasizing spatial dynamics, material and formal applications and focused solutions on environmental and human factors with an emphasis on developing design language proficiency.
Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

342. Interior/Architectural Presentations (3)
Prerequisites: DESN 232, DESN 340 and Junior standing in the Interior Design program.
Corequisite: DESN 341A or consent of instructor.
Further explorations in the design of sustainable interior environments emphasizing spatial dynamics, material and formal applications and focused solutions on environmental and human factors with an emphasis on developing design language proficiency.
Letter grade only (A-F). (6 hours laboratory)

343. Advanced Drafting and Detailing (3)
Prerequisites: DESN 312, DESN 245 and Junior standing in the Interior Design program or consent of instructor.
Development of advanced drafting and detailing skills for interior architectural design: specifically related to construction processes, materials, joining solutions, and representational conventions.
Letter grade only (A-F). (6 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

344A. Display and Exhibition Design (3)
Prerequisites: 6 units from DESN 110, DESN 268, AH 111A, AH 111B; DESN 120B, DESN 141 or DESN 150, DESN 232, or consent of instructor.
Use of materials, processes, design concepts in planning preparation of displays, exhibits.
Letter grade only (A-F). (6 hours laboratory)
344B. Display and Exhibition Design (3)
Prerequisites: DESN 344A or consent of instructor.
Use of materials, processes, design concepts in planning preparation of displays, exhibits.
Letter grade only (A-F). (6 hours of laboratory)

346. Computer-Aided Design – 3D Modeling (3)
Prerequisites: DESN 120B, DESN 151, DESN 232, DESN 246; and for BFA: DESN 312, and for BA: DESN 255; or consent of instructor.
Computer-aided drawing, rendering, 3D drawing, solid modeling. Includes lighting, animation techniques for spatial/architectural modeling, design.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. Course fee may be required. (6 hours lab)

351A. Process of Architectural/Interior Lighting Design (3)
Prerequisites: DESN 232, DESN 244 or consent of instructor.
Further development in the design processes of natural and engineered lighting solutions in architectural and interior space. Specific focus on current technologies and materials.
Letter grade only (A-F). (6 hours laboratory)

351B. Applications of Architectural/Interior Lighting Design (3)
Prerequisites: DESN 351A or consent of instructor
Focused development of major categories of lighting design application (residential, office, wayfinding, etc.). Specific attention given to common principles, equipment, conventions and energy demands relevant to current code and environmental concerns.
Letter grade only (A-F). (6 hours laboratory)

352A. Specialty Equipment (1)
Prerequisite: DESN 156 or DESN 346; or consent of instructor.
Theory and demonstration of specialty equipment (Rapid Prototyping, the Computer Numeric Control machine and 3D Scanner).
Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters. (2 hours of laboratory)

352B. Advanced Specialty Equipment (1)
Prerequisite: DESN 352A or consent of instructor.
Advanced training in the operation of specialty equipment (Rapid Prototyping, the Computer Numeric Control machine and 3D Scanner.)
Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters. (2 hours of laboratory)

356. Advanced 3D Computer-Aided Design (3)
Prerequisites: DESN 120B, DESN 150, DESN 151, DESN 156, DESN 232, and DESN 255.
Advanced computer aided modeling techniques and strategic exercises created to assist, improve and accentuate the design process.
Letter grade only (A-F). (6 hours laboratory)

360A. Environmental Communication Design (3)
Prerequisites: 6 units from DESN 110, DESN 268, AH 111A, AH 111B; DESN 156 or DESN 246, DESN 232, DESN 255, DESN 346 or DESN 356, or consent of instructor.
3D communication design for physical and virtual environments. Create applied systems for audience experience within experimental, dynamic or interactive contexts.
Letter grade only (A-F). (6 hours laboratory) Not open for credit for students with credit in DESN 360.

360B. Advanced Environmental Communication Design (3)
Prerequisites: DESN 360A or consent of instructor. For Art majors: ART 149, ART 327 or consent of instructor.
Advanced 3D communication design for physical and virtual environments. Create applied systems for branded environments, informative installations and site navigation.
Letter grade only (A-F). (6 hours of laboratory) Not open for credit for students with credit in DESN 360.

366. Advanced 3D Digital Modeling (2)
Prerequisite: DESN 346 or consent of instructor.
Advanced texturing, and rendering techniques in 3D digital modeling for interior design.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. Course fee may be required. (4 hours laboratory)

367. History and Theory of Architecture (3)
Prerequisite: Completion of GE Foundation requirements.
Surveys the development of architecture and underlying theories, relative to the human need to shape the built environment, that define specific periods - from prehistory to the present moment - organized in accordance to historical benchmarks and significant buildings and spaces.
Letter grade only (A-F). Not open for credit to students with credit in ART 417. (3 hours lecture)

368. History and Theory of Design (3)
Prerequisite: Completion of GE Foundation requirements.
Surveys the development of design as an independent creative activity including a consideration of both pre-industrial and post-industrial culture. A study of the technologies, manufacturing methods, and underlying theories that define historical periods and current design trends.
Letter grade only (A-F). Not open for credit to students with credit in ART 418. (3 hours lecture)

369. History of Furniture and Decorative Arts (3)
Prerequisite: Completion of GE Foundation requirements.
Critical survey and study of the global and cultural context of the history of furniture, decorative arts and accessories as they relate to advances in technology, social, aesthetic, human, environmental, economic and political factors.
Letter grade only (A-F). (3 hours lecture)

370. Design in Contemporary Society (3)
Prerequisite: Completion of GE Foundation requirements.
Discover principles of design by examining human relationship to built environment through a sequence of scales: from organization of cities, to public architecture, housing, design of furniture, products. Emphasis will be on experiencing design through lecture, lab, field observations, projects.
Letter grade only (A-F). (3 hours lecture)

431A. Advanced Industrial Design (4)
Prerequisite: DESN 331B or consent of instructor.
Advanced planning and execution of industrial design projects. Awareness in user experience, market research, product development, manufacturing, branding and entrepreneurship.
Letter grade only (A-F). (8 hours laboratory )

431B. Advanced Industrial Design (4)
Prerequisite: DESN 431A or consent of instructor.
Continuation of advanced planning and execution of industrial design projects. Awareness in user experience, market research, product development, manufacturing, branding and entrepreneurship.
Letter grade only (A-F). (8 hours laboratory)

435A. Furniture Design (3)
Prerequisites: DESN 151, DESN 232; and for BS: DESN 331A; and for BFA: DESN 341A; and for BA: DESN 255 and DESN 346 or DESN 356; or consent of instructor.
Design of public, private interior furnishings with in-depth study of potentials of contemporary production methods, materials.
Letter grade only (A-F). (6 hours of laboratory)
435B. Advanced Furniture Design (3)
Prerequisites: DESN 435A or consent of instructor.
Continuation of DESN 435A. Projects focus upon research, impact of human factors on design of furniture.
Letter grade only (A-F). (6 hours laboratory)

440. Professional Practice for Interior Architecture (3)
Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration courses, and upper division status. A score of 11 or higher on the GWAR Placement Examination, or completion of the necessary portfolio course required as a prerequisite for GWAR Writing Intensive Capstones.
Corequisites: DESN 441A or consent of instructor.
Examine the basics of professional interior design practices; business standards, project management, marketing, professional ethics, legal issues and the importance of sustainable design. Preliminary programming, building selection and site analysis for senior project.
Letter grade only (A-F). (3 hours lecture)

441A. Advanced Interior Design (4)
Prerequisites: DESN 341B, DESN 343 or consent of instructor.
Advanced design of interior environments emphasizing relationships between built environment and human factors with a focus on professional collaboration and related social and environmental issues.
Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

441B. Advanced Interior Design (4)
Prerequisite: DESN 441A or consent of instructor.
Further exploration of advanced interior design emphasizing relationships between built environment and human factors. The focus is on researching social and environmental issues while developing and executing a cohesive design project.
Letter grade only (A-F). (8 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.

442G. Internship in Industrial Design (3)
Prerequisite: DESN 331A or consent of instructor.
Student internship experience in selected industrial design offices. Opportunity to work under supervision of industrial designers in field to expand student understanding of complexities, discipline, challenges in practice of industrial design.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (2 1/4 hours laboratory)

442H. Internship in Interior Design (3)
Prerequisite: DESN 341A or consent of instructor.
Student internship experience in selected interior design offices. An opportunity to work under supervision of interior designers, architects in field to expand student understanding of complexities, discipline, challenges in practice of interior design.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Limited to 6 units in one semester. (2 1/4 hours laboratory)

450. BA Senior Project (3)
Prerequisites: DESN 346 or DESN 356, DESN 360A, and 6 units of DESN History or consent of instructor.
Refine an area of interest through the development of a senior project and portfolio. Should be taken in the semester of graduation.
Letter grade only (A-F). (6 hours laboratory) May require student-owned laptop computer. See Department website for current laptop hardware and software specifications.
Introduction

When resources are scarce, difficult choices must be made on how resources are to be divided among competing uses. Economics is a social science that addresses the efficient allocation of scarce resources.

Career Possibilities

Economist • Agricultural Economist • Financial Analyst • Industrial Analyst • International Trade Economist • Labor Specialist • Market Research Analyst • Tax Analyst • Investment Analyst • Teacher • Securities Salesperson • Bank Management • Loan Officer • Investment Counselor • Social Researcher • Auditor • Credit Analyst • Statistician • Urban Planner (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Arts in Economics (120 units)

Requirements

Lower Division:

Complete each of the following courses with a grade of "C" or better:

- ECON 100 Principles of Macroeconomics (3)
  Prerequisite: MATH 103 or higher.
- ECON 101 Principles of Microeconomics (3)
  Prerequisite: MATH 103 or higher.

Complete the following course:

- ACCT 201 Elementary Financial Accounting (3)
  Prerequisites: None

Complete one of the following courses with a grade of "C" or better:

- MATH 115 Calculus for Business (3)
  Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
- MATH 119A Survey of Calculus I (3)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
- MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

Students with upper division standing declaring Economics as a major may substitute ECON 300 for ECON 100 and ECON 101.

Upper Division:

Complete each of the following courses with grades of "C" or better:

- ECON 310 Microeconomic Theory (3)
  Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.
- ECON 311 Macroeconomic Theory (3)
  Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.
- ECON 380 Economic Statistics (4)
  Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.

Take six additional upper-division courses in Economics of which at least two must be at the 400 level.

The following courses may not be used to satisfy the elective requirement in economics: ECON 300, and ECON 499.

Option in Mathematical Economics and Economic Theory (120 units)

Requirements

Lower Division:

Complete each of the following courses with a grade of "C" or better:

- ECON 100 Principles of Macroeconomics (3)
- ECON 101 Principles of Microeconomics (3)
- MATH 122 Calculus I (4)
- MATH 123 Calculus II (4)
- MATH 224 Calculus III (4)

Complete the following course:

- MATH 247 Introduction to Linear Algebra (3)
  Prerequisite: MATH 123 or MATH 222.

Students with upper-division standing declaring the option may substitute ECON 300 for ECON 100 and ECON 101.

Upper Division:

Economic Theory:

Complete each of the following courses with grades of "C" or better:

- ECON 310 Microeconomic Theory (3)
  Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.
- ECON 311 Macroeconomic Theory (3)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.

Statistics:
Take all of the following courses:
MATH 380 Probability and Statistics (3)
Prerequisite: MATH 224.
STAT 381 Mathematical Statistics (3)
Prerequisites: MATH 247, and a grade of "C" or better in MATH 380.

Advanced Theory and Quantitative Methods:
Take at least one of the following courses:
ECON 403, ECON 410, ECON 411, ECON 420, ECON 485, ECON 486

Elective Courses:
At least four additional upper-division courses in economics of which at least one economics course must be taken at the 400 level. Students may take one course from the following in meeting the elective requirement: MATH 364A, MATH 485; STAT 410 or STAT 450; these will not substitute for the 400-level economics requirement. ECON 300, ECON 380, and ECON 499 may not be taken to meet the elective requirement.

Bachelor of Arts in Business Economics (120 units)

Requirements
Lower Division:
Complete each of the following courses with a grade of "C" or better:
ECON 100 Principles of Macroeconomics (3)
Prerequisite: MATH 103 or higher.
ECON 101 Principles of Microeconomics (3)
Prerequisite: MATH 103 or higher.
Complete the following course:
ACCT 201 Elementary Financial Accounting (3)
Prerequisite: None

Students with upper division standing declaring business economics as a major may substitute ECON 300 for ECON 100 and ECON 101.

Complete one of the following courses with a grade of "C" or better:
MATH 115 Calculus for Business (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
MATH 119A Survey of Calculus I (3)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

Upper Division:
Complete each of the following courses with grades of "C" or better:
ECON 310 Microeconomic Theory (3)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.
ECON 311 Macroeconomic Theory (3)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.

ECON 380 Economic Statistics (4)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.

Take six additional upper division courses from the following groups (at least two must be at the 400 level):

Group A. Analytical Economics
Take at least two courses from the following:
ECON 340, ECON 341, ECON 355, ECON 366, ECON 430, ECON 434, ECON 438, ECON 450, ECON 462, ECON 464, ECON 470.

Group B. Quantitative and Applied Economics
Take at least two courses from the following:
ECON 330, ECON 420, ECON 437, ECON 441, ECON 455, ECON 465, ECON 471, ECON 485, ECON 486.

Group C. Business and Economics
Take one course from the following:
ECON 320, ECON 333; FIN 300.

Remaining elective may be any class offered by Economics. The following courses may not be used to satisfy the elective requirement in economics: ECON 300, and ECON 499.

Minor in Economics
The Minor in Economics is available to any non-Economics or non-Business Economics major.
A minimum of 18 units which must include:
Lower Division:
Complete each of the following courses with a grade of "C" or better:
ECON 100 Principles of Macroeconomics (3)
Prerequisites: MATH 103 or higher.
ECON 101 Principles of Microeconomics (3)
Prerequisite: MATH 103 or higher.

Students with upper division standing declaring the minor may substitute ECON 300 for ECON 100 and ECON 101 with departmental consent.

Complete one of the following courses with a grade of "C" or better:
MATH 115 Calculus for Business (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
MATH 119A Survey of Calculus I (3)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

Upper Division:
Complete each of the following courses with grades of "C" or better:
ECON 310 Microeconomic Theory (3)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.
ECON 311 Macroeconomic Theory (3)
Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of "C" or better in all prerequisite courses.

Take at least one additional upper division elective economics course.
The following courses may not be taken as upper division electives:

2016-2017 CSULB Catalog • Economics • 363
Minor in International Economics
The Minor in International Economics is available to any non-Economics or non-Business Economics major or non Option in Mathematical Economics and Economic Theory major.
A minimum of 15 units is required and must include:
Lower Division:
Complete each of the following courses with a grade of "C" or better:
ECON 100 Principles of Macroeconomics (3)
Prerequisites: MATH 103 or higher.
ECON 101 Principles of Microeconomics (3)
Prerequisite: MATH 103 or higher.
Students with upper division standing declaring the minor may substitute ECON 300 for ECON 100 and ECON 101.
Upper Division:
Complete each of the following courses with a grade of "C" or better:
ECON 366 Introduction to Development Economics (3)
Prerequisites: ECON 100 and ECON 101 or ECON 300.
ECON 372 International Economics (3)
Prerequisites: ECON 100 and ECON 101, or ECON 300.
Complete one additional upper division elective course from the following course list:
ECON 301 Economics of Public Issues (3)
Prerequisite: Completion of G.E. Foundation courses and a score of 11 or higher on the GWAR Placement Examination or successful completion of the necessary portfolio course that is a prerequisite for a GWAR Writing intensive Capstone course (subject to approval by the General Education Governing Committee (GEGC)).
ECON 306 Environmental Issues of the World Economy (3)
Prerequisites: G.E. Foundation and the Category B requirement, and ECON 101.
ECON 313 History of Economic Thought (3)
Prerequisites: ECON 100 and ECON 101, or ECON 300.
ECON 341 Global Labor Market Issues (3)
Prerequisites: ECON 101 or ECON 300.
Other upper-division elective courses (additional prerequisites required): ECON 465, ECON 470, ECON 471.
4. Graduate students must consult with the graduate advisor for information concerning department procedures and for approval of their course of study upon admission.

Advancement to Candidacy
Advancement usually occurs upon successful completion of the first 6 units. Students must also successfully complete the Graduation Writing Assessment Requirement (GWAR) and have a minimum GPA of 3.0 in order to advance to candidacy.

Requirements
1. Complete 30 units of upper-division and graduate courses. All students must demonstrate competency in economic theory (microeconomics and macroeconomics) and applied economics (econometrics and research methods). Students must also take one general economics seminar and develop one field of concentration in economics.
2. Complete the following economic theory courses with a grade of "B" or better:
   ECON 510 Advanced Microeconomics (3)
   Prerequisites: ECON 310 or equivalent with grades of "C" or better.
   ECON 511 Advanced Macroeconomics (3)
   Prerequisites: ECON 311 or equivalent with grades of "C" or better.
3. Complete the following applied economic courses with a grade of "C" or better:
   ECON 585 Econometrics I (4)
   Prerequisites: None
   ECON 586 Econometrics II (4)
   Prerequisites: ECON 585.
   ECON 587 Research Methods in Economics (3)
   Prerequisites: ECON 585
4. Complete the following field and seminar courses with a grade of "B" or better in the 600-level courses:
   • ECON 690 Seminar in Economics (3)
     Prerequisites: ECON 510, ECON 511, ECON 585, ECON 586, and ECON 587
   • ECON 691 Economics Research Lab (1)
     Co-requisite: ECON 690
   • One 600-level field course seminar (3)
     Prerequisites: ECON 510, ECON 511, ECON 585, ECON 586, ECON 587, and one corresponding 500-level course (3) in the same field with a "C" or better
5. Complete one additional 400- or 500-level elective (3) with a grade of "C" or better.
6. Maintain a minimum cumulative GPA of 3.0.
7. Pass a comprehensive exam. The comprehensive exam requires students to submit a research paper from a 600-level seminar and orally defend this research to a committee of three faculty members. This exam will assess the student’s proficiency in economic theory, ability to apply economic theory, and proficiency in economic research. The faculty committee will determine if the student has successfully passed the exam based on the quality of the research paper and oral defense according to guidelines established by the department.  Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

Graduate Programs

Master of Arts in Economics
For detailed information about the program, please visit www.csulb.edu/economics and select “Graduate Program” or contact the graduate advisor.

Prerequisites
1. A bachelor’s degree with a major in economics; or
2. A bachelor’s degree with 18 units of core economics courses which include calculus, statistics, principles of microeconomics, principles of macroeconomics, intermediate microeconomics, and intermediate macroeconomics.
3. A minimum undergraduate GPA of 3.0 (“B”) in core economics courses.
<table>
<thead>
<tr>
<th>Courses (ECON)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOWER DIVISION</strong></td>
</tr>
<tr>
<td><strong>100. Principles of Macroeconomics (3)</strong></td>
</tr>
<tr>
<td>Prerequisite: MATH 103 or higher.</td>
</tr>
<tr>
<td>Money and banking, price changes, national income analysis, business cycles, economic growth, fiscal and monetary policy, international trade.</td>
</tr>
<tr>
<td><strong>101. Principles of Microeconomics (3)</strong></td>
</tr>
<tr>
<td>Prerequisite: MATH 103 or higher.</td>
</tr>
<tr>
<td>Business organization, price theory, allocation of resources, distribution of income, public economy.</td>
</tr>
<tr>
<td><strong>UPPER DIVISION</strong></td>
</tr>
<tr>
<td>General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.</td>
</tr>
<tr>
<td><strong>300. Fundamentals of Economics (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: GE Foundation requirements.</td>
</tr>
<tr>
<td>Designed for non-majors. Presents basic training in economics for social studies teachers or citizens who wish to exercise a reasoned judgment about economic issues in public affairs.</td>
</tr>
<tr>
<td><strong>301. Economics of Public Issues (3)</strong></td>
</tr>
<tr>
<td>Prerequisite: Completion of G.E. Foundation courses and a score of 11 or higher on the GWAR Placement Examination or successful completion of the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone course (subject to approval by the General Education Governing Committee (GEGC)).</td>
</tr>
<tr>
<td>A writing-intensive approach to understanding and critically evaluating current social problems and public policies using basic economic analysis.</td>
</tr>
<tr>
<td><strong>306. Environmental Issues of the World Economy (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: G.E. Foundation and the Category B requirement, and ECON 101.</td>
</tr>
<tr>
<td>Interdisciplinary analysis of human impact on the atmosphere and biological diversity; consideration of policies to foster sustainable development with emphasis on the economic perspective.</td>
</tr>
<tr>
<td><strong>310. Microeconomic Theory (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of &quot;C&quot; or better in all prerequisite courses.</td>
</tr>
<tr>
<td>Analysis of economic concepts and their applications to business situations. Emphasis on supply and demand analysis, costs of production, variations of competition and monopoly, revenues, prices, profits and losses, and other aspects of the operations of the business enterprise.</td>
</tr>
<tr>
<td><strong>311. Macroeconomic Theory (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of &quot;C&quot; or better in all prerequisite courses.</td>
</tr>
<tr>
<td>Determinants of levels of income, employment, and prices; of secular and cyclical changes in economic activity; and of the effects of public policies upon aggregative economic experience.</td>
</tr>
<tr>
<td><strong>313. History of Economic Thought (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100 and ECON 101, or ECON 300.</td>
</tr>
<tr>
<td>Evolution of economics as a science. Doctrines of the different schools of economic thought. Study of the contributions of outstanding economists.</td>
</tr>
<tr>
<td><strong>317. Economic Analysis I (3)</strong></td>
</tr>
<tr>
<td>Prerequisite(s): ECON 100, ECON 101, ESP 200 and one of the following: MATH 115 or MATH 119A or MATH 119B or MATH 122.</td>
</tr>
<tr>
<td>The study of the microeconomic theory, economic institutions and political institutions that are the foundation to developing public policy to achieve an efficient allocation of scarce resources.</td>
</tr>
<tr>
<td>Letter grade only (A-F).</td>
</tr>
<tr>
<td><strong>320. Money and Banking (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100 and ECON 101.</td>
</tr>
<tr>
<td>Nature and functions of money and its relation to prices; the monetary system of the United States; the functions of banks, bank credit, foreign exchange and monetary control.</td>
</tr>
<tr>
<td><strong>330. Game Theory (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 101 or ECON 300.</td>
</tr>
<tr>
<td>A formal study of conflict and cooperation, and their application to modeling and analyzing an interactive situation, especially in the context of microeconomics.</td>
</tr>
<tr>
<td><strong>333. Managerial Economics (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100, ECON 101 and either MATH 115, MATH 119A, or MATH 122.</td>
</tr>
<tr>
<td>The tools of marginal analysis and their application to managerial decisions and planning, emphasis upon calculating solutions to operational problems. Topics include demand analysis, production and cost, pricing, and output decisions. Product and factor markets will be analyzed.</td>
</tr>
<tr>
<td><strong>340. Economics in Movies (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 101 or ECON 300</td>
</tr>
<tr>
<td>Application of economic concepts to real-world situations as depicted in movies. Economic analyses of incentives, trade-offs, supply and demand, insurance, the used car market, crime, pollution, and other topics.</td>
</tr>
<tr>
<td><strong>341. Global Labor Market Issues (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 101 or ECON 300.</td>
</tr>
<tr>
<td>Application of labor economic theory to global labor markets. Focus on international comparison of wages, unemployment, human capital, working conditions, and government labor policy.</td>
</tr>
<tr>
<td>Letter grade only (A-F).</td>
</tr>
<tr>
<td><strong>355. Law and Economics (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100 and ECON 101, or ECON 300.</td>
</tr>
<tr>
<td>Analysis of economic concepts and their application to law and legal institutions. Emphasis on property law, contract law, accident law, crime control and judicial administration.</td>
</tr>
<tr>
<td><strong>366. Introduction to Development Economics (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100 and ECON 101 or ECON 300.</td>
</tr>
<tr>
<td>Economic and social aspects of economic development. General analysis of all aspects of economies in developing countries. Application of concepts to current situation in developing countries from different parts of the world.</td>
</tr>
<tr>
<td><strong>372. International Economics (3)</strong></td>
</tr>
<tr>
<td>Prerequisites: ECON 100 and ECON 101, or ECON 300.</td>
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<td>Covers selected issues concerning the international economy from an interdisciplinary perspective. Topics include: International trade theory, the globalization production, political economy of trade policy, international economic institutions, bi-lateral and multi-lateral trade negotiations, and foreign exchange markets.</td>
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<tr>
<td><strong>380. Economic Statistics (4)</strong></td>
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<tr>
<td>Prerequisites: ECON 100, ECON 101, and either MATH 115, MATH 119A, or MATH 122, with grades of &quot;C&quot; or better in all prerequisite courses.</td>
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| Use of descriptive and inferential statistical concepts for the analysis of economic data. Topics include measures of central tendency and dispersion, probability theory, discrete and continuous probability.
430. Industrial Organization (3)
Prerequisite: ECON 310 with a grade of "C" or better.
The structure, behavior and performance of firms and industries. Implications of separation of ownership and control, Corporate social responsibility and the profit motive. The dilemma of size versus competition.

434. Economics of Regulation (3)
Prerequisite: ECON 310 with a grade of "C" or better.
A comprehensive survey of the past, present and future of the political regulation of economic and business activity. Consideration of the rationale for regulation and deregulation and the creation, design and removal of regulatory practices.

437. Urban Economics (3)
Prerequisite: ECON 310 with a grade of "C" or better.
Economic analyses of city formation and size, business and residential location decisions, land use. Application of microeconomic theory to urban transportation issues, residential segregation, urban poverty and crime, and housing markets. Introduction to local public finance and provision of local public goods.
Not open for credit to students with credit in ECON 537.

438. Regional Economics (3)
Prerequisites: ECON 310 and ECON 311 with grades of "C" or better.
Economic evolution and growth of cities, states and countries. Roles of geography, demography, location of industries, and factors determining regional growth and development will be considered. Special attention will be paid to the economic integration of U.S. states and European nations.
Not open for credit to students with credit in: ECON 538

440. Transportation Economics (3)
Prerequisites: ECON 310 and ECON 380 with grades of "C" or better.
Economic analysis of intercity transportation, cost measurement, applications of pricing principles, project evaluation, and economic regulation. Policies towards railroads, air transportation, and intercity highways.
Letter grade only (A-F).

441. Labor Economics (3)
Prerequisites: ECON 310, and ECON 380 or MATH 380 with grades of "C" or better.
Manpower resources and their utilization, with particular reference to labor unions, collective bargaining and related public policies. Effects of these institutions on production, employment, prices and patterns of income distribution.

450. Public Sector Economics (3)
Prerequisites: ECON 310 and ECON 311 with grades of "C" or better.
Analysis of the theory of public goods. Criteria for efficient allocation of resources between private and public sectors. Possible responses of government externalities, such as environmental degradation. Emphasis on the allocation and distribution effects of government expenditures and taxation.

455. Forecasting (4)
Prerequisites: ECON 311, and ECON 380 or MATH 380 with grades of "C" or better.
Principles and methods of forecasting. Evaluation of the reliability of existing forecasting techniques. Also covers use of the macroeconomic model as a basis for forecasting and the role of forecasts in the formulation of national economic policy.
(Lecture 3 hours, activity 2 hours.)

460. Forecasting (4)
Prerequisites: ECON 310, and ECON 311 with grades of "C" or better.
Applications of microeconomic theory. Examination and analysis of particular markets and contemporary issues. Specific emphasis on policy analysis for government and business decisions. Designed for graduate students and exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F).

461. Advanced Microeconomics (3)
Prerequisites: ECON 310 and ECON 311 with grades of "C" or better.
Applications of microeconomic theory. Examination and analysis of particular markets and contemporary issues. Specific emphasis on policy analysis for government and business decisions. Designed for graduate students and exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F).

462. Environmental Economics (3)
Prerequisite: ECON 310 or ECON 317 with a grade of "C" or better.
Economic analysis of environmental problems and policy. Market failures due to externalities, public goods, and common property resources will be examined. Private (market) and public (governmental) solutions to environmental problems are examined.

465. Economic Development (3)
Prerequisites: ECON 310 and ECON 311 with grades of "C" or better.
Analysis of problems associated with economic growth of less developed countries. Evaluation of development policies.

466. Natural Resource Economics (3)
Prerequisites: ECON 310 or ECON 313 with grades of "C" or better. and one of the following: ECON 380 or MATH 380 or BIOL 200 or STAT 108 or GEOG 200, or equivalent.
Microeconomic and capital theory applied to problems of conserving and managing natural resources. Analysis of public policies affecting renewable and nonrenewable resources including price controls, taxation and leasing. Representative topics include: forestry, fisheries, energy, water, and mineral economics.

467. International Trade (3)
Prerequisite: ECON 310 with a grade of "C" or better.
Examines theories of trade, welfare implications of different trade policies, the political economy of trade policies, and global trading arrangements.

468. International Finance (3)
Prerequisites: ECON 310 and ECON 380 or MATH 380 with grades of "C" or better.
Covers topics in international finance in both an applied and theoretical framework, such as the balance of payments, the foreign exchange market, income, trade, capital flows, asset market adjustment mechanisms, and exchange rate regimes.
485. Introduction to Econometrics (4)
Prerequisites: ECON 310, ECON 311, and 380 or MATH 380 with grades of "C" or better.
Introduction to econometrics, with a focus on understanding and applying the classical linear regression model. Emphasis placed on applications of regression analysis.
Letter grade only (A-F). Not open for credit to students with credit in ECON 585. (Lecture 3 hours, activity 2 hours)

486. Econometrics II (4)
Prerequisite: ECON 485 with a grade of "C" or better.
The second in a two-semester sequence introducing students to basic techniques in econometrics: advanced regression, including time-series and panel data analysis. Critical evaluation of selected examples of empirical economic research, and exercises in applied econometrics.
(Lecture 3 hours, activity 2 hours) Not open for credit to students with credit in: ECON 586.

490. Selected Topics in Economics (3)
Prerequisite: Consent of instructor.
Topics of current interest in economics selected for intensive development.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

491H. Senior Honors Seminar in Economics (3)
Prerequisites: Senior standing, ECON 485 or ECON 486, and consent of instructor.
Provides opportunity for students to integrate their knowledge of economics, statistics-econometrics and computer studies. Designed as a seminar in research where students will be expected to write a paper and present their research results orally. Research topics must be approved by instructor.

495. Field Studies Practicum (3)
Prerequisites: ECON 310 or ECON 333 and consent of instructor.
Observation and practical experience, at a managerial level, in an appropriate business or government enterprise.
Applications for permission to enroll must be filed with the Economics Department at least six weeks prior to beginning of the semester involved.
May be repeated to a maximum of 6 units.

499. Directed Study (1-3)
Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

500. Business Economics (3)
Workings of the price system in resource allocation with special emphasis on the role of business in the economy. Analysis of the economic implications of various forms of industrial organization and the application of public policy to business activity.
Not open to students majoring in economics or pursuing an M.A. in economics. Letter grade only (A-F).

503. Mathematical Economics (3)
Applications of calculus, linear algebra and other mathematical tools in formulating and solving economic problems.
Letter grade only (A-F). Not open for credit to students with credit in: ECON 403.

510./410. Advanced Microeconomics (3)
Prerequisite: ECON 310 or equivalent with grades of "C" or better. Applications of microeconomic theory. Examination and analysis of particular markets and contemporary issues. Specific emphasis on policy analysis for government and business decisions. Designed for graduate students and exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F).

511./411. Advanced Macroeconomics (3)
Prerequisite: ECON 311 or equivalent with grades of "C" or better.
Applications of macroeconomics, monetary and forecasting theory to operational management and planning decisions of government and business. Designed for graduate students and exceptional undergraduate students who intend to pursue a graduate degree in economics.
Letter grade only (A-F).

537. Urban Economics (3)
Economic analyses of city formation and size, business and residential location decisions, and land use. Application of microeconomic theory to urban transportation issues, residential segregation, urban poverty and crime, and housing markets. Introduction to local public finance and provision of local public goods.
Letter grade only (A-F).

538. Regional Economics (3)
Economic evolution and growth of cities, states and countries. Roles of geography, demography, location of industries, and factors determining regional growth and development will be considered. Special attention will be paid to the economic integration of U.S. states and European nations.
Letter grade only (A-F).

555. Transportation Economics (3)
Economic analysis of intercity transportation, cost measurement, applications of pricing principles, project evaluation, and economic regulation. Policies towards railroads, air transportation, and intercity highways.
Letter grade only (A-F).

562. Environmental Economics (3)
Economic analysis of environmental problems and policy. Market failures due to externalities, public goods, and common property resources will be examined. Private (market) and public (governmental) solutions to environmental problems are examined.
Letter grade only (A-F).

563. Energy Economics (3)
Application of economic analysis to energy problems and policies. Representative topics include macroeconomic effects of energy price shocks, international financial fragility, OPEC pricing strategies, determinants of demand and supply, industrial organization and finance, investor and publicly owned utilities, domestic and international policies.
Letter grade only (A-F).

564. Natural Resource Economics (3)
Microeconomic and capital theory applied to problems of conserving and managing natural resources. Analysis of public policies affecting renewable and nonrenewable resources including price controls, taxation and leasing. Representative topics include: forestry, fishery, energy, water, and mineral economics.
Letter grade only (A-F).

565. Economic Development (3)
Economic and social factors underlying economic development. Analysis of problems associated with economic growth of less developed countries. Evaluation of development policies.
Letter grade only (A-F).

570. International Trade (3)
Examines theories of trade, welfare implications of different trade policies, the political economy of trade policies, and global trading arrangements.
Letter grade only (A-F).
571. International Finance (3)
Covers topics in international finance in both an applied and theoretical framework, such as the balance of payments, the foreign exchange market, income, trade, capital flows, asset market adjustment mechanisms, and exchange rate regimes.
Letter grade only (A-F).

585. Econometrics I (4)
First course in a two-semester sequence introducing students to basic techniques in econometrics. Basic statistics and the classical linear regression model are covered. Emphasis is given to computing estimators using simulated and actual data sets.
Letter grade only (A-F). (Lecture 3 hours, activity 2 hours)

586. Econometrics II (4)
Prerequisite: ECON 585
The second in a two-semester sequence in advanced econometric and time series techniques. Current techniques to analyze panel data and to forecast using time series data. Emphasis is placed on empirical techniques commonly used in applied econometric analysis to support decision-making.
Letter grade only (A-F). (Lecture 3 hours, activity 2 hours)

587. Research Methods in Economics (3)
Prerequisite: ECON 585
Applications of research methods to economics. Topics include: developing a research question, performing a literature review, data compilation and statistical analysis.
Letter grade only (A-F).

597. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Intensive reading and/or practical research in economics.
Letter grade only (A-F).

660. Seminar in Natural Resources and the Environment (3)
Prerequisites: ECON 510, ECON 511, ECON 585, ECON 586, 587, and one of the following: ECON 562, ECON 563 or ECON 564.
Research methods applied to selected topics from energy, natural resources, and the environment.
Letter grade only (A-F). (Seminar 3 hours.)

666. Seminar in Transportation Economics (3)
Prerequisites: ECON 510, ECON 511, ECON 555, ECON 585, ECON 586, and ECON 587.
Advanced topics in transportation economics including passenger and freight transportation issues, congestion pricing, toll roads, mass transit systems, maritime economics, transportation regulation, firm performance, as well as welfare effects of transportation policy.
Letter grade only (A-F).

670. Seminar in International Trade and Development (3)
Prerequisites: ECON 510, ECON 511, ECON 585, ECON 586, ECON 587, and one of the following: ECON 565, ECON 570 or ECON 571.
Selected topics dealing with current problems and solutions in international trade, finance, and development.
Letter grade only (A-F).

690. Seminar in Economics (3)
Prerequisites: ECON 510, ECON 511, ECON 585, ECON 586, and ECON 587.
Corequisite: ECON 691
Seminar on topics of current interest in economics.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F).

691. Economics Research Lab (1)
Corequisite: ECON 690
Practical applications, empirical exercises, and research methods in economics.
Letter Grade only (A-F), May be repeated to a maximum of 2 units in different semesters, 1 hour contact.

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Independent research under the guidance of a faculty member.
Letter grade only (A-F).
Introduction

The College of Education's mission is to create and nurture a learning and teaching community committed to equity and excellence in education. We fulfill our purpose by preparing professional educators and practitioners who promote equity and excellence in diverse urban settings through pedagogy evidence-based practices, collaboration, leadership, innovation, scholarship, and advocacy.

The College provides undergraduate and graduate studies in education through three departments - Liberal Studies, Teacher Education, and Advanced Studies in Education and Counseling - and one university-wide program - the Single Subject Credential Program. Curriculum in college programs focuses on the preparation of personnel for teaching and educational service in pre-school settings, elementary, middle and high schools, community colleges, adult programs, and other educational agencies. Descriptions that include prerequisites and requirements for each credential, certificate, and degree program are listed in this catalog in the department that houses the particular program. Doctoral program information is included at the end of this section.

College programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the State Commission on Teacher Credentialing (CTC).

Please visit the college website at www.ced.csulb.edu for detailed information on departments, programs, centers, and offices.
Community College
Disability Studies
Other Credentials and Authorizations:
Please refer to the College of Health and Human Services section of this catalog for credential programs in:
- Adapted Physical Education
- Health Services (School Nurse) (Inactive)
- Speech-Language Pathology Services
- School Social Work, Child Welfare, and Attendance

### Credential Programs

Public school teaching and service credentials in California are regulated by the state legislature and administered by the State Commission on Teacher Credentialing (CTC). Credential programs offered at CSULB have been developed to meet current requirements, which are complex and continually reviewed and changed by legislative and agency action. Candidates for all credentials must meet legal requirements in effect when completing credential programs. It is the responsibility of the candidate to be familiar with the program requirements. For information regarding admission, academic requirements, and fieldwork, contact the specific credential program coordinator. For information on state credential laws and regulations, pending changes, and new legislation, contact the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

### Basic Teaching Credentials

There are three types of basic teaching credentials: Multiple Subject, Single Subject, and Education Specialist.

The Preliminary Multiple Subject Credential authorizes the holder to teach all subjects in a self-contained classroom. A teacher authorized for multiple subject instruction may be assigned to teach in any self-contained classroom — pre-K to grade 12, or in classes for adults. In practice, most teachers with a single subject authorization teach departmentalized classes in middle, junior high or senior high schools. CSULB offers Commission on Teacher Credentialing-approved Subject Matter Programs in Art, Biological Sciences, Chemistry, English Geosciences, Health Science, Home Economics, Industrial and Technology Education, Languages Other than English (French, German, Italian, Japanese, Latin, Spanish) Mathematics, Music, Physical Education (Adapted P.E., Elementary School, Secondary School), Physics, and Social Science. For detailed information on the Single Subject Credential Program, refer to the Single Subject Teacher Education section in this catalog or visit the Teacher Preparation Advising Center (ED1-67; 562/985-5325).

The Education Specialist Credential authorizes a candidate to teach in a special education assignment with students with special needs. This K-12 credential certifies individuals to work as a special day class teacher, inclusion support teacher or resource specialist. In addition to completing a sequence of professional preparation courses and student teaching, candidates must demonstrate subject matter competence by passing all three sub-tests of the California Subject Examinations for Teachers: Multiple Subjects, or the appropriate CSET exam in Math, Science, or Language Arts as a condition of entry to the program. Another pathway to the Education Specialist Credential is the Integrated Teacher Education Program (ITEP), through which students can earn dual authorization to teach Multiple Subjects and Special Education. For detailed information on the Education Specialist Credential Program, refer to the Advanced Studies in Education and Counseling section in this catalog or visit the Teacher Preparation Advising Center (ED1-67; 562/985-1105).

Elementary and secondary teachers who wish to diversify their teaching authorizations may do so by fulfilling specific requirements. Further information is available in the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

### Obtaining the Preliminary Credential

Requirements for the Preliminary and Professional Clear credentials are set by the Commission on Teacher Credentialing in accordance with state law. Requirements for the Preliminary credential include:
1. a bachelor’s degree from an accredited institution
2. an approved professional preparation program, including the teaching of reading and student teaching
3. verification of subject matter competence (coursework or examination)
4. passage of CBEST (California Basic Educational Skills Test) or an equivalent basic skills test
5. completion of an approved course or examination in the U.S. Constitution
6. demonstration of Level I computer technology proficiency (course or exam)
7. for Multiple Subject and Education Specialist candidates, passage of the Reading Instruction Competence Assessment (RICA)

Graduates of CSULB credential programs meet Commission and program requirements and are recommended for the Preliminary credential by the College.

Obtaining the Professional Clear Credential

The Preliminary Credential is valid for five years from the date of issuance and is not renewable. During the first five years of teaching, teachers are expected to earn the Professional Clear Credential through a Commission-approved Professional Teacher Induction Program sponsored by a school district, county office of education, college or university, consortium, or private school.

For information on the Professional Clear credential, contact the Credential Center (ED1-42; 562/985-4109; credentials@csulb.edu).

Entry Levels for Basic Credential Programs

Credential programs may begin at five different levels:
1. Qualified candidates who wish to earn the Multiple Subject Credential or MSCD and ESCP may begin the Integrated Teacher Education Program (ITEP) in the Liberal Studies Department as first-term freshmen. This program leads to the Multiple Subject Credential in four and a half years of full time, accelerated study.
2. Qualified transfer students from community colleges who wish to earn the Multiple Subject Credential and who have started the Integrated Teacher Education Program (ITEP) at their community college may continue the program as transfer students. This program leads to the Multiple Subject Credential in four and a half years of full time, accelerated study. Candidates in the Urban Dual Credential Pathway may earn both MSCP and ESCP in 5 years.
3. Junior level - With a carefully planned program, credential program courses may be taken as electives as early as the first semester of the junior year with completion of the program coming as early as the first semester after graduation.
4. Senior level - Credential program courses may be taken during the senior year as electives. The remaining credential courses and student teaching are then completed at the post-baccalaureate level. (Note: By petition only, up to twelve units of course work taken in the final undergraduate semester -- and not needed to meet major or degree requirements -- may be counted as postgraduate credit toward credit on a district salary ladder. This petition must be filed prior to graduation. Information is available in the Teacher Preparation Advising Center (ED1-67; 562/985-1105).
5. Graduate level - The entire credential program may be completed at the post-baccalaureate level.

Application to Credential Programs

Information on application to basic credential programs is available in the Teacher Preparation Advising Center (ED1-67; 562/985-1105). Students currently not enrolled in the University must file an application for admission to the University (www.csumentor.edu) as well as an application to the specific program. Note: Some programs have established application periods each year that are separate from the University application periods and process.

Application for Student Teaching

Candidates for student teaching for the summer or fall term of any year must apply by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission Student Teaching application deadlines are firm.

Candidates for student teaching must attend a Student Teaching Application Meeting which is the only venue for distributing applications. Dates and times for each application period are posted on bulletin boards and program websites.

Appeal Process

Students may address an appeal to the appropriate committee regarding any policy related to admission and continuation in a teacher preparation program. Petition forms and assistance are available in the Teacher Preparation Advising Center (ED1-67; 562-985-1105).

Designated Subjects Credentials

The Designated Subjects Credential Programs at CSULB are currently inactive and not accepting new students. These programs prepare candidates for Clear credential teaching authorizations in Career Technical Education (CTE) and Adult Education (AE). The CTE credential authorizes the holder to teach subjects named on the credential in grades 12 and below and in classes organized primarily for adults in technical, trade or vocational courses. The AE credential authorizes the holder to teach specific academic and non-academic subjects named on the credential in courses organized primarily for adults and in adult education programs administered by school districts.

Specialist Credentials

CSULB offers programs leading to a Reading Certificate. Both require a valid basic teaching credential. (Note: the Adapted Physical Education Credential is available through the Department of Kinesiology. Refer to the College of Health and Human Services section of this catalog.)

Service Credentials

Service credential programs are available in the following areas: Preliminary Administrative Services, Professional Administrative Services, Teacher Librarian Services, School Counseling, and School Psychology. Both the Preliminary Administrative Services and the Teacher Librarian Services credentials require a valid basic teaching credential. (Note: Speech-Language Pathology Services, and School Social Work, Child Welfare and Attendance credentials are also...
available at CSULB. Refer to the College of Health and Human Services section of this catalog.

Degree Programs

Bachelor’s Degree Programs

The college offers a bachelor’s degree in Liberal Studies through the Liberal Studies Department. The Liberal Studies Track I major is a cross-disciplinary liberal arts program of study that meets both the General Education and major requirements of the university. This major prepares students in the broad content necessary for successful elementary school teaching. Track I students often begin taking credential program courses in the junior or senior year, and complete the credential program in the first year after graduating. The Integrated Teacher Preparation Program (ITEP) is a Liberal Studies major that combines a broad liberal arts course of study with teacher preparation courses. ITEP students graduate with both a BA degree and a Preliminary Multiple Subject Teaching Credential. Through a new UDCP pathway ITEP students may now earn both their MS and ES teaching credentials with their BA degree. For more information, refer to the Liberal Studies Department section of this catalog.

Master’s Degree Programs

Master’s degree programs are offered in three departments within the College. General procedures, policies, requirements, and applications for the master’s degrees are available from the Graduate Studies Office, ED1-7 (www.ced.csulb.edu/graduate), and are listed following each option in the appropriate section of the catalog. In order to pursue a master’s degree, students must submit applications to both the University and the program.

The Advanced Studies in Education and Counseling Department offers a Master of Science degree in Counseling, with Options in Marriage and Family Therapy, and School Counseling, and a Master of Science degree in Special Education. The Master of Arts in Education degree is offered with Options in Educational Psychology, Educational Technology and Media Leadership, and Social and Cultural Analysis of Education. The ASEC department also offers the Educational Specialist degree and the PPS credential in School Psychology.

The Teacher Education Department offers six options in the Master of Arts in Education: Curriculum and Instruction (Elementary Education), Curriculum and Instruction (Secondary Education), Dual Language Development, Early Childhood Education, Mathematics Education, and Reading/Language Arts. The Educational Leadership Department offers a Master of Arts in Education degree in Education Administration and a Master of Science in Counseling degree in Student Development in Higher Education.

To be considered for admission to a master’s degree program, students must submit a program application, test scores (if applicable), and any additional program requirements to the Graduate Studies office in the College of Education. Program applications vary; please check the individual program for additional requirements. Program applications may be obtained from the Graduate Studies office (ED1-7; 562/985-8476; www.ced.csulb.edu/graduate). Please note: Not all programs admit students for the spring semester. For additional program information and contact numbers for advisors, visit the College of Education website at www.ced.csulb.edu and navigate to the appropriate program.

All master’s degree candidates in education are required either to complete a thesis or project or take a comprehensive examination according to the requirements of the degree or degree option. Application for enrollment for thesis, project, or comprehensive examination must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Introduction

The mission of the Educational Leadership Department is to support dynamic, transformative, socially responsible leaders who engage others, value diversity, operate with academic integrity, and believe in people and their educational futures. The department offers graduate level course work in the following programs: Doctor of Education with a specialization in P12 Leadership or Community College/Higher Education Leadership, Masters of Arts with an option in Educational Administration, Masters of Science in Counseling with an option in Student Development in Higher Education, Preliminary Administrative Services Credential, Professional Administrative Services Credential, and the Graduate Certificate in Community College.

Graduate Degrees

Master of Arts in Education
Option in Educational Administration
Masters of Science in Counseling
Option in Student Development in Higher Education
Doctor of Education with the following specializations:
• Elementary/Secondary Leadership
• Community College/Higher Education Leadership Credentials
• Preliminary Administrative Services Credential
• Professional Administrative Services Credential – Tier II
Certificate
• Graduate Certificate in Community College

Master of Arts in Education

Option in Educational Administration
Candidates for degrees in Master of Arts programs must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time. Program application deadlines may vary. Visit the College of Education website for program details, application guidelines and materials, and application deadlines (www.ced.csulb.edu). All university regulations governing the master's degree apply to college programs. Program requirements published in the university Catalog in effect during the year a candidate advances to candidacy are the requirements the candidate will be held to (catalog rights).

Educational leaders serve in many capacities. No matter what position an individual holds within an educational organization, all efforts should be directed at supporting the equitable academic achievement of all students being served. The courses in the Educational Administration Option are designed to prepare leaders for this important work. Emphasis is placed on 1) examining the role of schooling in a democratic society, 2) multiple and varied aspects of educational leadership, 3) building collaboratives, 4) managing and guiding change, and 5) working with diverse populations. The program’s primary mission is to educate candidates who will assume leadership positions in diverse, urban, K-12 schools and districts. Visit the program website for program details (www.ced.csulb.edu/academic/masters.cfm).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. 15 upper-division units in education, including EDP 400 or equivalent.
3. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education.
 Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
4. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the Preliminary Administrative Services Masters/Credential Program must be submitted to the College of Education Graduate Studies Office (ED1-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.
Classified Admission
Successful applicants are admitted to the program with Classified Admission status.

Advancement to Candidacy - Clear Admission
Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:
1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Complete EDP 400.
3. Complete EDAD 541 and one other EDAD course for a total of 6 units.
4. Resolve all incomplete grades.
5. Maintain a 3.0 grade point average.
6. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program coordinator.

Requirements
A minimum of 30 units with a 21-unit concentration in Educational Administration is required; 21 units must be at the 500/600 level taken at this university.
1. Take one course at the 500 or 600 level in the College of Education (3 units) with the approval of the Educational Administration program coordinator. Areas include Educational Psychology, Educational Technology and Media Leadership, Social and Cultural Analysis of Education, Special Education, Curriculum and Instruction Elementary or Secondary, Dual Language Development, Early Childhood Education, Reading/Language Arts, Mathematics Education.
2. Take one of the following (3 units):
   - EDP 520, EDP 595
3. Take one of the following chosen with advisor consultation:
   - EDAD 695, EDAD 698 Thesis (must take 6 units)
4. Take all of the following (21 units):
   - EDAD 541 Leadership, Organizational Management, Ethics (3)
     Prerequisites: Admission to the Preliminary Administrative Service Credential Program.
   - EDAD 544 Legal Aspects of Education: Implications and Applications for School Leadership (3)
     Prerequisites: EDAD 541.
   - EDAD 647A Fiscal Resources Educational Administration (3)
     Prerequisites: EDAD 541.
   - EDAD 647B Human Resources in Educational Administration (3)
     Prerequisites: EDAD 541.
   - EDAD 649 Urban Schools and Communities: Academic, Social, Political, and Cultural Issues (3)
     Prerequisites: EDAD 541.
   - EDAD 677A Curriculum/Program Development and Evaluation (3)
     Prerequisites: EDAD 541. Corequisites: EDAD 677B.
   - EDAD 677B Instructional Leadership & Assessment (3)
     Prerequisites: EDAD 541. Corequisites: EDAD 677A.

Master of Science in Counseling
Option in Student Development in Higher Education (SDHE)
Counselors serve valuable functions in fields of education, health and human services, and business. Their domains of practice include public and private educational institutions, medical facilities and allied health agencies, social service agencies and organizations, state and federal human service agencies and programs, correctional facilities, business and industry, and private practice.
The program's philosophy is to introduce students to a variety of approaches to counseling, and to encourage the development of competencies within these approaches.
The program combines theory and practice utilizing on and off campus course work and field work assignments. Required courses are offered predominantly in the evening, but most field assignments require daytime participation during normal business hours defined by the off-campus sites.

Students coming from diverse experiential backgrounds are trained at the graduate level to be able to perform entry level duties expected by the counseling profession and its specialty areas. Students are prepared to assume future leadership positions in their area(s) of expertise after additional work experiences have been acquired in the field following graduation.

Students completing this option are employed in residence halls, financial aid, student activities, adult re-entry, admissions, career centers, academic advising, disabled student services, counseling centers, orientation, TRIO and Educational Opportunity Programs, multicultural affairs, and community outreach in two- and four-year institutions.

Prerequisites
The following are required for admission to the program:
1. Baccalaureate degree from an accredited college or university.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.
Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time. Program Option application deadlines may vary.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

A separate application to the selected Counseling program Option must be submitted to the College of Education Graduate Studies Office (ED1-7). You may only apply to one program per year. A program Option application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program Option application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program Option with Classified Admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. For advancement to candidacy (Clear Admission status), students must:
1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Complete COUN 510, COUN 513; EDP 400; SDHE 538, SDHE 593.
3. Maintain a 3.0 grade point average in all course work.
4. Resolve all incomplete grades.
5. Meet with the program coordinator and faculty advisor.
6. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program coordinator.

Requirements

Take all of the following (51 - 57 units):
- COUN 510 Law and Ethics for Counselors (3)
  Prerequisites: None.
- COUN 513 Introduction to Clinical Interviewing (3)
  Prerequisites: None.
- COUN 515 Counseling Theories (3)
  Prerequisites: COUN 513.
- COUN 555 Cross-Cultural Counseling (3)
  Prerequisites: COUN 510, COUN 513, COUN 515, SDHE 538, or their equivalent upon approval of the instructor.
- COUN 638 Group Counseling (3)
  Prerequisites: Admission to the MS in Counseling, and/or PPS School Counseling Credential, or School Psychology Program, COUN 510, COUN 513, COUN 515 or equivalent upon approval of instructor.
- EDP 400 Introduction to Educational Research (3)
  (or equivalent)
  Prerequisites: None.
- EDP 520 Quantitative Research Methods in Education (3)
  Prerequisites: EDP 400 or equivalent.
- EDP 596 Program Evaluation in Education (3)
  Prerequisites: EDP 400 and EDP 520, or equivalent.
- SDHE 516 Counseling the Adult (3)
  Prerequisites: COUN 515.
- SDHE 538 Student Development in Higher Education (3)
  Prerequisites: None.
- SDHE 547 Student Development Theory in Higher Education: Theory to Practice (3)
  Prerequisites: SDHE 538.
- SDHE 548 Students in U. S. Higher Education (3)
  Prerequisites: SDHE 538.
- SDHE 549 Management of Student Development in Higher Education (3)
  Prerequisites: None.
- SDHE 593 Seminar in Professional Development in Counseling and Human Services (1)
  Prerequisites: SDHE 538 and SDHE 548 (must have completed or concurrently enrolled).
- SDHE 643B Counseling Field Work: Student Development in Higher Education (3)
  Prerequisites: SDHE 516, SDHE 538.
- SDHE 644B Advanced Counseling Field Work: Student Development in Higher Education (3)
  Prerequisites: SDHE 516, SDHE 538, SDHE 643B.
- SDHE 693A Intermediate Seminar in Professional Development in Student Development in Higher Education (1)
  Prerequisites: SDHE 593.
- SDHE 693B Advanced Professional Development Seminar in Student Development in Higher Education (1)
  Prerequisites: SDHE 593, SDHE 693A.

Take one of the following:
- SCAE 560, SCAE 561, SCAE 562

Take one of the following:
- EDP 698 Thesis (must take 6 units)
- Comprehensive examination

Doctor of Education

P-12 Specialization

Community College/Higher Education Specialization

The Education Leadership doctoral program is designed to prepare current and future P-16 educational leaders to develop and nurture organizations that are designed to serve the diverse populations of southern California. Graduates of this program will be prepared to serve as leaders in urban education with expertise to function in a global technological society. The program produces reflective practitioners aware of the complex challenges of curriculum, finance, organizational dynamics, and collaboration with local, state, and national stakeholders.

Students will become more effective leaders by (a) solving problems from multiple perspectives; (b) using multicultural competence to interact with personnel, students and community members; (c) challenging assumptions to improve educational systems; and (d) learning to lead organizations toward respect of divergent viewpoints, learning styles, and ranges of ability.

Emphasis is placed on the expanding and changing role of education for social change to meet the needs of society. Graduate students in a learning cohort community will experience an interdisciplinary approach to the study of educational leadership, teaching and learning, organizational development, management and research. Graduates of the program will be qualified for a variety of positions in education.
of teaching and leadership positions in education and education-related settings, such as superintendent, central office administrator, school principal in P-12, or chancellor, president or administrator in community colleges or 4-year universities.

University Admission

Applications are reviewed annually and students accepted to the program begin study in the summer of each year. Students must file an application for Graduate Admission along with one complete set of official transcripts from all educational institutions with the University Office of Admissions.

Program Admission

In addition to the university application, prospective students must also submit a program application. Admission is granted on a competitive basis; meeting the minimum requirements qualifies an individual for consideration but does not guarantee admission to the program. Requirements for admission will apply to all Ed.D. applicants and include:

1. Evidence of completing an acceptable baccalaureate degree earned at a regionally accredited institution.
2. Evidence of completing a master’s degree earned at a regionally accredited institution, or the applicant has completed equivalent academic preparation.
3. A cumulative grade point average of at least 3.0 in upper-division and graduate study combined.
4. Good standing at the last institution of higher education attended.
5. Demonstration of sufficient preparation for, experience in, and potential for educational leadership, including: successful experience in leadership in school, postsecondary, or community contexts, and/or policy leadership; academic excellence; problem-solving ability; technological proficiency; interest in critically assessing current educational policies and practices; and interest in improving current educational policies and practices.
6. Graduate Record Examination (GRE) scores from the three sections of the General Test, taken within five years of applying to the Ed.D. program.
7. Three letters of recommendation attesting to leadership and scholarship potential.
8. A written statement of purpose reflecting an understanding of the challenges facing the public schools or community colleges in California.
9. A written statement from the applicant describing the applicant's plan for meeting professional responsibilities and the demands of the program.
10. A written statement from the applicant's employer indicating support for the applicant's doctoral studies, if applicable.
11. A personal interview.

Requirements

The program requires a minimum of 60 units of which 12 are dissertation units. At least 42 units must be completed in residence at the campus. All courses must be completed:

1. Core courses (23 units):
   - EDLD 720 Proseminar in Educational Leadership (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 721A Advanced Proseminar in Educational Leadership (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720 or consent of department chair.
   - EDLD 721B Advanced Proseminar in Educational Leadership (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A or consent of department chair.
   - EDLD 721C Advanced Proseminar in Educational Leadership (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B or consent of department chair.
   - EDLD 721D Advanced Proseminar in Educational Leadership (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B, EDLD 721C or consent of department chair.
   - EDLD 721E Advanced Proseminar in Educational Leadership (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B, EDLD 721C or consent of department chair.
   - EDLD 722 History and Systems of U.S. Education (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 723 Legal and Ethical Leadership: Implications for Policy and Practice in P-16 Educ Settings (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 724 Critical Perspectives of U.S. Education and Diversity (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 725 Organizational Leadership in Educational Settings (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 726 Policy, Politics, Power in Educational Settings (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

2. Research courses (13 units):
   Take all of the following:
   - EDLD 730 Educational Research Epistemologies and Methodologies (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 731 Qualitative Research Methods for Educational Leadership (3)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 733 Program and Student Assessment (1)
     Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
   - EDLD 734 Survey Methods in Educ Research (1)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

EDLD 735 Applied Field Research (2)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

Take one of the following:

EDLD 732A Inferential Data Analysis in Education A (3)
Prerequisites: Admission to the Educational Leadership Doctorate program and EDLD 730 or consent of department chair.

EDLD 732B Inferential Data Analysis in Education B (3)
Prerequisites: Admission to the Educational Leadership Doctorate program and EDLD 730 or consent of department chair.

EDLD 741 Teaching and Learning in Post Secondary Setting (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

EDLD 742 Exploration of Campus Cultures: Impact and Influence (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

EDLD 743 Leadership in Higher Education (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

EDLD 745 Leadership in P-12 Education (3)
Prerequisite: Admission to the Educational Leadership Doctorate Program or consent of department chair.

EDLD 752 Financial and Human Resource Development (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.

EDLD 754 Leadership in P-12 Education (3)
Prerequisite: Admission to the Educational Leadership Doctoral Program or consent of department chair.

EDLD 755 Curriculum Theory, Instructional Leadership, and Accountability (3)
Prerequisite: Admission to the Educational Leadership Doctoral Program or consent of department chair.

4. Dissertation (12 units):
EDLD 798 Doctoral Dissertation (3)
Prerequisites: Consent of instructor/doctoral candidacy required. Student research and writing of the Ed.D. dissertation.

Doctoral students must maintain a 3.0 GPA to be in good standing. Students who have a grade point average below 3.0 in two successive terms will be disqualified from the program.

The Ed.D. program is designed to allow students to complete all program requirements within three calendar years, including three required summer sessions. Students are expected to complete program requirements within five years after full admission to the program. Extensions of up to two years may be granted if the student is in good standing, there are compelling individual circumstances, and the student demonstrates current knowledge of research and practice in educational leadership. After completion of all course work and successful completion of the qualifying examination, the student will advance to candidacy and undertake the dissertation.

Continuous enrollment is a requirement of the program. If extenuating circumstances require that the student leave the program for a period of time, the faculty will consider an adjusted schedule and an individualized plan.

Qualifying Examination Paper

The qualifying examination paper shall include a rigorous written demonstration of student knowledge; the examination must be passed prior to the student’s advancement to candidacy. The examination will be due by the end of the fourth term in the program. The student will synthesize knowledge from courses taken to date: (1) Leadership core courses, (2) Research Methods courses, and (3) Specialization courses completed up to that time. The structure of the qualifying examination paper will be defined by the program's guidelines. Failure to earn a designation of “pass with reservations” or above after the second submission, will result in dismissal from the Ed.D. Program.

Dissertation Proposal Examination

The dissertation proposal examination and oral defense will evaluate the student's readiness to proceed with the dissertation research. The dissertation proposal examination will consist of the first three chapters of the dissertation. It will typically focus on an examination of (a) an educational issue, (b) a practice or program, (c) an educational policy or reform or improvement, or (d) implementation studies within an educational organization or community setting.

The dissertation committee will evaluate the proposal. A determination of passing must be made by consensus of the committee. Passing this examination shall constitute formal approval for the candidate to proceed with the proposed dissertation research, subject to Institutional Review Board approval.

Advancement to Candidacy

After being admitted to the program, passing the qualifying examination, completing coursework, and successfully defending the dissertation proposal, the student will advance to candidacy. The total time from admission until candidacy shall not exceed three years unless there are mitigating circumstances and the program faculty have approved the extension. An extension for advancement to candidacy shall not exceed one year.

Dissertation

The dissertation shall be the written product of systematic, rigorous research on a significant educational issue. The dissertation is expected to contribute to an improvement in public P-12 or community college professional practices or policy, generally or in the context of a particular educational institution.

The dissertation shall identify the field-based research problem and question(s), state the major theoretical perspectives, explain the applied significance of the undertaking, relate it to the relevant scholarly and
professional literature, set forth the appropriate sources for and methods of gathering and analyzing the data, and offer a conclusion or recommendation. It shall include a written abstract that summarizes the significance of the work, objectives, methodology, and a conclusion or recommendation.

The Dissertation Committee will minimally consist of a chair and two members. The dissertation chair will be determined by the joint agreement of the student and the proposed chairs as approved by the Chair of the Educational Leadership Department. The chair and student will then select two other members; one will be from the College of Education faculty and the other will be a P-16 practitioner who holds a doctorate, or a community member associated with the program who holds a doctorate.

The dissertation committee chair will provide primary supervision for the dissertation research and is a full-time faculty member at CSU Long Beach. The second committee member is a tenured, tenure-track, or adjunct faculty member of CSU Long Beach. The third committee member is a practitioner from a school district, college, university or public agency other than CSU Long Beach who holds a terminal degree (Ed.D., Ph.D., or J.D.). The Chair of the Educational Leadership Department may allow the replacement of a committee member, based on the evaluation of a rationale provided by the student or committee member making the request.

**Final Examination Oral Defense of the Dissertation**

The Dissertation Committee will conduct a final oral examination during which the doctoral student defends the dissertation. By unanimous vote the Committee may approve the dissertation and recommend conferral of the degree or may request minor and/or substantive changes. In the event that the Dissertation Committee requires substantive changes, the final vote of the Committee will be postponed until the changes are completed. The Committee may also vote to reject the dissertation, thereby ending the student’s participation in the degree program.

**Administrative Services Credentials**

Certification of school administrators is established through a two-tiered credentialing process.

Upon completion of all Preliminary Administrative Services Credential Program coursework and requirements (Tier 1), candidates apply to the California Commission for Teacher Credentialing (CTC) for a Preliminary Administrative Services Credential Certificate of Eligibility. The Certificate has no expiration date and authorizes the holder to seek an administrative position. The Certificate informs the future employing school district/agency of eligibility to serve. Once the candidate accepts employment as an administrator, the candidate applies to the California Commission for Teacher Credentialing for the Preliminary Administrative Services Credential authorizing the candidate to serve as an administrator in the state of California. Once issued, the Preliminary Credential is valid for five (5) years and it is not renewable.

The Professional Administrative Services Credential (Tier 2) cannot be pursued until the candidate is employed in a position requiring an administrative credential. Once issued, it is valid for five years and is renewable subject to fulfillment of professional development requirements (see complete description of the Professional Administrative Services Credential program below).

**Preliminary Administrative Services Credential (code 501)**

**Prerequisites**

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. 15 upper-division units in education
3. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education.

Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.

4. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

5. An entity that operates a program for the Preliminary Administrative Services Credential shall determine, prior to recommending a candidate for the credential, that the candidate possesses a baccalaureate degree and a valid teaching credential; or a services credential with a specialization in pupil personnel services, library services, health services, or clinical rehabilitative services; or a designated subjects credential and a baccalaureate degree.

**Application**

An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. Preference will be given to individuals with 3 or more years of classroom teaching and/or related educational experiences.

**Requirements**

Prerequisite: Enrollment in courses is contingent upon acceptance in the Educational Administration program and the University. Candidates who have not been accepted in the program may not enroll in Educational Administration courses.

1. Take all of the following:
   - EDAD 541 Leadership, Organizational Management, and Ethics (3)
     Prerequisites: Admission to the Preliminary Administrative Services Credential Program.
   - EDAD 544 Legal Aspects of Education: Implications and Applications for School Leadership (3)
     Prerequisites: EDAD 541.
   - EDAD 647A Fiscal Resources in Educational Admin (3)
     Prerequisites: EDAD 541.
   - EDAD 647B Human Resources in Educational Administration (3)
Prerequisites: EDAD 541.

EDAD 649 Urban Schools and Communities: Academic, Social, Political, and Cultural Issues (3) Prerequisites: EDAD 541.

EDAD 677A Curriculum/Program Development and Evaluation (3) Prerequisites: EDAD 541. Corequisites: EDAD 677B.

EDAD 677B Instructional Leadership & Assessment (3) Prerequisites: EDAD 541. Corequisites: EDAD 677A.

EDAD 680 Field Experience in Educational Admin (3) Prerequisites: Admission to program, EDAD 541; completion of at least three additional courses in the Preliminary Administrative Services Credential program, consent of instructor.

2. The CBEST must be passed prior to entrance into EDAD 680. The CBEST must be taken no later than the second available test administration date following enrollment in the program.

Exit Requirements
1. Verification of five years of successful experience in a position requiring one of the credentials in Item #2 of the "Clear Admission Requirements" (see above);
2. Verification of completion of the State requirement of a mainstreaming course or approved equivalent coursework;
3. Presentation of a professional Exit Portfolio to program faculty with program artifacts of course and field related experiences documenting the candidate's competence and readiness to serve as a school administrator.

Professional Administrative Services Credential – Tier II (code 502)

Certification under the Professional Administrative Services Credential (Tier II) authorizes the candidate to serve in any position requiring an Administrative Services Credential. The Professional Credential cannot be pursued until the candidate is employed in a position requiring an administrative credential. The program requirements must be completed within the five year authorization of the Preliminary Administrative Services Credential. Once issued, the Professional Credential is valid for five years and is renewable subject to fulfillment of professional development requirements.

Prerequisites
1. Possession of a valid Preliminary Administrative Services Credential;
2. Written verification of employment in an administrative position by an educational agency.

Application
1. Program application and evidence that prerequisites have been met.
2. Current resume.
3. Personal narrative describing philosophy of leadership and academic and professional goals while in the program.
4. Copy of valid Preliminary Administrative Services Credential.
5. Written evidence of mentor’s commitment to work with the candidate for the duration of the program.

6. Personal contact (phone, email, in person) with program coordinator prior to program application.

Requirements
This program is currently being revised. Please contact the program coordinator for advisement.

Graduate Certificate in Community College

The community college graduate certificate is designed to prepare graduate students to work in community college settings as teaching faculty or counselors. Courses offered in this program provide students with an overview of the community college and its role in the American higher education system. Students will gain insights and experiences in the classroom and in fieldwork that will strengthen their knowledge and skills in working with community college students, faculty, and staff. The certificate program consists of 18 units; 9 units are from the master’s degree program and must be approved by the student’s master’s degree program graduate advisor; and 9 units are specific to the study of college students, the community college, and fieldwork; 15 units must be completed at CSULB. All students will be required to:
1. Submit a Graduate Certificate in Community College application to the Office of Graduate Studies.
2. Be enrolled in a master’s degree program in a discipline leading to teaching or counseling in post-secondary education settings.
3. Complete 9 units of coursework in Educational Leadership:
   SDHE 552 Introduction to the Community College (3) Prerequisites: Enrollment in M.A., M.S. or Credential Programs.
   SDHE 548 Students in U. S. Higher Education (3) Prerequisites: SDHE 538.
   SDHE 644B Advanced Counseling Field Work: Student Development in Higher Education (3) (counseling or teaching focused) Prerequisites: SDHE 516, SDHE 538, SDHE 643B.
4. Complete an additional 9 units approved by their master’s degree program graduate advisor for consideration to fulfill the 18 units required for the certificate. These courses may include pedagogy, learning theory, instructional management, and/or teaching methodology courses in the student’s major area of study, or any other courses in the discipline deemed appropriate by the master’s degree program graduate advisor.

Educational Administration Courses (EDAD)

541. Leadership, Organizational Management, and Ethics (3)
Prerequisite: Admission to the Preliminary Administrative Services Credential Program.
Examines the relationship between leadership and organizations; the role of educational leaders; a shared vision to support equitable academic achievement for all students; multiple measures to guide decision making; the relationship among political, social, economic, legal, and cultural factors and schools.
Ten hours field experience required. Course fee may be required. Letter grade only (A-F).
544. Legal Aspects of Education: Implications and Applications for School Leadership (3)
Prerequisite: EDAD 541.
Implications and applications of school law including accessing technological sources of legal information, conducting basic legal research, demonstrating operational knowledge of school law, creating a conceptual and ethical legal leadership framework, developing legal foundational knowledge.
Ten hours field experience required. Course fee may be required. Letter grade only (A-F).

667A. Fiscal Resources in Educational Administration (3)
Prerequisites: EDAD 541.
Examines foundational concepts and theories of public school finance; social, economic, political, legal and technological dimensions stemming from federal, state, local influence; identification of revenue sources, budgeting strategies/procedures, equitable resource allocation mechanisms, fiscal policy implications.
Letter grade only (A-F). Includes at least 10 hours of field experience. Course fee may be required.

667B. Human Resources in Educational Administration (3)
Prerequisites: EDAD 541.
Examines fundamental human resource leadership issues; laws, ethics, and procedures governing certificated and classified personnel; employee recruitment, selection, retention and performance appraisal systems, professional development programs; staffing, unions, collective bargaining and contract management, strategic planning, problem solving strategies.
Letter grade only (A-F). Includes at least 10 hours of field experiences. Course fee may be required.

669. Urban Schools and Communities: Academic, Social, Political, and Cultural Issues (3)
Prerequisite: EDAD 541
Examines dynamics of urban schools and communities with emphasis on academic, social, political and cultural issues. Explores culturally diverse families and communities, forming partnerships and effective communication strategies, conflict resolution strategies.
Letter grade only (A-F). Includes at least 10 hours of structured field experiences. Course fee may be required.

667A. Curriculum/Program Development and Evaluation (3)
Prerequisite: EDAD 541.
Corequisite: EDAD 677B.
Examines teaching, learning, and achievement for all students; policy impact on curriculum development, implementation, and assessment; distributed instructional leadership and accountability; multiple measures and data-driven assessment for program evaluation; closing the achievement gap; communication and partnership with stakeholders.
Not open for credit to students with credit in EDP 677 or EDAD 650. Ten hours field experience required. Course fee may be required. Letter grade only (A-F).

667B. Instructional Leadership and Assessment (3)
Prerequisite: EDAD 541.
Corequisite: EDAD 677A.
Examination of instructional leadership and supervision practices that facilitate and sustain continuous school improvement; assessment policies and practices; distributed leadership and accountability; achievement disparities between/among student subgroups; adult learning theory; technology; teacher evaluation and differentiated professional development; and community partnerships.
Includes 10 hours of field experience. Course fee may be required. Letter grade only (A-F).
721A. Advanced Proseminar in Educational Leadership (1)
Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720 or consent of department chair.
Focus on the continued development of the research problem and identification of literature necessary to complete the qualifying examination. Second semester of a six-semester sequence. Letter grade only (A-F).

721B. Advanced Proseminar in Educational Leadership (1)
Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A or consent of department chair.
Focus on continued development of the requisite research skills necessary to complete the qualifying examination and, eventually, the proposal and dissertation. Third semester of a six-semester sequence. Letter grade only (A-F).

721C. Advanced Proseminar in Educational Leadership (3)
Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B or consent of department chair.
Focus on the development of the Qualifying Examination Paper. Fourth semester of a six-semester sequence. Letter grade only (A-F).

721D. Advanced Proseminar in Educational Leadership (1)
Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B, EDLD 721C or consent of department chair.
Focus on the development of the dissertation literature review. Fifth semester of a six-semester sequence. Letter grade only (A-F).

721E. Advanced Proseminar in Educational Leadership (1)
Prerequisite: Admission to the Educational Leadership Doctorate program and EDLD 720, EDLD 721A, EDLD 721B, EDLD 721C, EDLD 721D or consent of department chair.
Focus on the development of chapter 1 of the dissertation. Sixth semester of a six-semester sequence. Letter grade only (A-F).

722. History and Systems of U.S. Education (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Critical analysis of major schools of U.S. historical thought and their connection to social developments and examination of history as an interpretive, subjective process in which historians engage in dialogue with larger intellectual communities. Letter grade only (A-F).

723. Legal and Ethical Leadership: Implications for Policy and Practice in P-16 Educational Settings (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of legal and ethical issues, implications, and applications. Exploration of leadership in complex educational environments, multiple perspectives applying legal and ethical principles and policies, technological legal research. Examination of broad national and state theoretical and practical contexts using an ethical, legal leadership framework. Letter grade only (A-F).

724. Critical Perspectives of U.S. Education and Diversity (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of identity in relation to disenfranchisement in educational institutions, multiple forms of cultural hegemony, policy and practices that foster inequality in schooling as well as issues related to students with disabilities and second language learners. Letter grade only (A-F).

725. Organizational Leadership in Educational Settings (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of dynamic organizations from a leader’s perspective. Analysis of organizational theory, structure, culture and interrelationships from multiple perspectives as well as the leader’s role in managing critical factors that can undermine a high performance organization. Letter grade only (A-F).

726. Policy, Politics, Power in Educational Settings (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
In-depth analysis of topics relevant to politics and power in educational policy and reform. Exploration of issues related to governance, structure, programs, leadership, strategic planning and assessment. Letter grade only (A-F).

730. Educational Research Epistemologies and Methodologies (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
In-depth exploration of epistemological underpinnings of educational research, qualitative and quantitative studies, and emergent research and methodologies pertinent to educational practice and policy. Letter grade only (A-F).

731. Qualitative Research Methods for Educational Leadership (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Advanced study of qualitative research traditions and methods for both understanding and application. Methods and research design elements include ethnographic and focus group interviews, participant and naturalistic observation, case study and document analysis. Letter grade only (A-F).

732A. Inferential Data Analysis in Education A (3)
Prerequisites: Admission to the Educational Leadership Doctorate program and EDLD 730 or consent of department chair.
Hypothesis testing using analysis of variance, factorial analysis of variance, analysis of covariance, multiple regression, and path analysis. A focus on data analyses to address research questions, interpretation of the results, and preparation of a written report of the findings. Letter grade only (A-F).

732B. Inferential Data Analysis in Education B (3)
Prerequisites: Admission to the Educational Leadership Doctorate program and EDLD 730 or consent of department chair, ED P 419 or equivalent, and EDLD 730.
Hypothesis testing using analysis of variance, factorial analysis of variance, analysis of covariance, multiple regression, and path analysis. Overview of Structural Equation Modeling. A focus on data analyses to address research questions, interpretation of the results, and preparation of a written report of the findings. Letter grade only (A-F).
733. Program and Student Assessment (1)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Assessment of student learning and development and program assessment. Focus on design of a holistic program evaluation incorporating assessment and measurement of student outcomes.
Letter grade only (A-F).

734. Survey Methods in Educational Research (1)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Focus on application and practical methodological tools in designing survey research in educational settings.
Letter grade only (A-F).

735. Applied Field Research (2)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Focus on the development of chapter 3 of the dissertation and piloting of the dissertation study research methods.
Letter grade only (A-F).

740. Policy and Finance Issues in Community Colleges (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
In-depth analysis of the community college system, function and purpose. Exploration of issues related to governance, structure, program, leadership, and strategic planning and assessment.
Letter grade only (A-F).

741. Teaching and Learning in Post Secondary Settings (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Focus on student development and learning theories based on cognitive, psychosocial, typology, and person-environment perspectives. Exploration of the role of faculty and others in the collaborative development and implementation of responsive curricula at 2- and 4-year institutions.
Letter grade only (A-F).

742. Exploration of Campus Cultures: Impact and Influence (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of faculty, administrative, and student cultures in terms of values, behavioral norms, impact and influences. Application of research methods to the study of campus cultures. Dialogue concerning the implications of these findings for higher education policies and practices.
Letter grade only (A-F).

743. Leadership in Higher Education (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Analysis of current research and theories on leadership and organizational change in higher education: multicultural organizational development theories, planning, change, and the effective strategies for change. Exploration of case studies of organizational leadership.
Letter grade only (A-F).

750. Instructional Improvement and Accountability (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of the role of educational leaders in engaging stakeholders in data collection, analysis, and application to practice; the development of a culture of inquiry, and the distribution of leadership for continuous instructional improvement and accountability systems design.
Letter grade only (A-F).

751. Organizational Culture and Community Engagement in Education (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of school organizational culture, leadership and the local community in a global context: organizational strategies and development of teams to promote systemic change, cultural transformation and social justice.
Letter grade only (A-F).

752. Financial and Human Resource Development (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of the acquisition, distribution, cultivation and management of human, fiscal, and time resources in public education. Identification and application of skills necessary for harnessing human and financial resources that further the goals of a school and district.
Letter grade only (A-F).

753. Supervision of Curriculum, Teaching, Learning and Assessment (3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Advanced theoretical analysis of curriculum, teaching, learning, and assessment of student achievement in diverse settings; impact of electronic and information technology on student knowledge acquisition; principles of professional development; macro and micro political and policy influences; leadership implications.
Letter grade only (A-F).

754. Leadership in P-12 Education (3)
Prerequisite: Admission to the Educational Leadership Doctoral Program or consent of department chair.
P-12 leadership paradigms, models, theories, organizational/structural configurations; internal/external local, state, national influences on leadership; change theory/agency; relationship, communication, and professional disposition-building strategies; research/practice integration.
Letter grade only (A-F).

755. Curriculum Theory, Instructional Leadership, and Accountability (3)
Prerequisite: Admission to the Educational Leadership Doctorate Program or consent of department chair.
Advanced research and analysis of the relationship among theory, curriculum, teaching, learning, assessment, and professional development in diverse settings. Role of the instructional leader.
Letter grade only (A-F).

790. Selected Topics - Educational Leadership (1-3)
Prerequisite: Admission to the Educational Leadership Doctorate program or consent of department chair.
Examination of various issues in educational leadership.
Letter grade only (A-F). May be repeated with different topics in the same semester up to a maximum of 24 units. Topics announced in the Schedule of Classes.
A. Issues of Leadership Roles and Responsibilities
B. Change Management
C. Focus Group Facilitation
D. Data-based Organizational Change
E. Applications of Technology
F. The Needs of Student Populations
G. Governing Boards
H. Staff Development Programs
I. Personnel Assessment Instruments
797. Directed Individual Study (1-3)
Prerequisites: Consent of instructor, department chair and associate dean.
Individual research or intensive study under the guidance of a faculty member.
Letter grade only (A-F). May be repeated to a maximum of 24 units in different semesters.

798. Doctoral Dissertation (3)
Prerequisites: Consent of instructor/doctoral candidacy required.
Student research and writing of the Ed.D. dissertation.
Credit/No Credit grading only. May be repeated to a maximum of 24 units in different semesters.

Student Development in Higher Education Courses (SDHE)

516. Counseling the Adult (3)
Prerequisite: COUN 515.
Theory and practice of counseling and guidance of the adult.
Not open for credit to students with credit in EDP/COUN 516. Letter grade only (A-F). Course fee may be required.

538. Student Development in Higher Education (3)
Survey of student development in public and private colleges and universities, focusing on historical, philosophical and theoretical foundations; roles and functions; legal, ethical, and organizational issues.
Not open for credit to students with credit in EDP/COUN 538. Letter grade only (A-F).

547. Student Development Theory in Higher Education: Theory to Practice (3)
Prerequisite: SDHE 538.
Explores student development theory and the application of theory to practice for programs and services in student affairs/higher education. Examine cognitive, psychosocial, and person/environment theories and their application to traditional and non-traditional student populations.
Not open for credit to students with credit in EDP/COUN 547. Letter grade only (A-F).

548. Students in U.S. Higher Education (3)
Prerequisite: SDHE 538.
Focus on concepts of community and culture in United States colleges with an emphasis on understanding the diversity of student population to include age, gender, ethnic culture, sexual orientation, and people with disabilities.
Not open for credit to students with credit in EDP/COUN 548. Letter grade only (A-F).

549. Management of Student Development in Higher Education (3)
Analysis of management and organizational theory and practice as it pertains to student development in higher education. Includes study of human and physical resources management.
Not open for credit to students with credit in EDP/COUN 549. Letter grade only (A-F).

552. Introduction to the Community College (3)
Prerequisite: Enrollment in M.A., M.S. or Credential Programs.
Introduction, orientation, and survey of California and American community college. Components and modules include teaching and learning, leadership and governance issues, organization and administration, student development, classroom research, institutional resources, and student diversity and equity in the community college.
Not open for credit to students with credit in EDP/COUN 552. Letter grade only (A-F).

593. Seminar in Professional Development in Counseling and Human Services (1)
Prerequisites/Corequisites: SDHE 538 and SDHE 548.
Experiential orientation to profession of counseling and student development/student affairs in higher education with an emphasis on opportunities to observe interactions between organizational and student cultures, and the functions and role of student affairs professionals in the work environment through fifty-hour practicum.
Not open for credit to students with credit in EDP/COUN 593. Letter grade only (A-F). Course fee may be required.

643. Counseling Field Work (3)
B. Student Development in Higher Education (3)
Prerequisites: SDHE 516, SDHE 538.
Continued practical experiences of 225 hours in counseling and guidance activities under supervision in approved settings.
Applications for field work must be made no later than March 1 for the following fall semester, and October 1 for the spring semester.
Not open for credit to students with credit in EDP 541 or COUN 643B. Credit/No Credit grading only. Course fee may be required.

693A. Intermediate Seminar in Professional Development in Student Development in Higher Education (1)
Prerequisites: SDHE 593.
Explore professional development topics to prepare for professional work in student development in higher education.
Attendance at a local, regional or national professional conference required.
Not open for credit to students with credit in COUN 693A. Letter grade only (A-F).

693B. Advanced Professional Development Seminar in Student Development in Higher Education (1)
Prerequisites: SDHE 593, SDHE 693A
Explore advanced professional development topics in student development in higher education. Demonstrate an integration of roles, philosophy and theory for counseling and student development work. Attendance at a local, regional and national conference required.
Not open for credit to students with credit in COUN 693B. Letter grade only (A-F).
Undergraduate Programs

Bachelor of Science in Electrical Engineering (120 units)

The objectives of the Bachelor of Science in Electrical Engineering Program are to prepare students to be successful and advance in their chosen careers in industry, academia, and public institutions, making significant contributions to the field of electrical engineering. These objectives are achieved by providing students:

1. a solid foundation in basic science, mathematics, and EE practices and major design skills to maintain high employability, adaptability, and an ability to develop and apply new technology;
2. effective communication skills to be able to progress in their careers;
3. an awareness of ethical and societal responsibilities;
4. an ability to work effectively in a team environment.

The bachelor's degree in electrical engineering is designed to prepare graduates for responsible engineering positions in design, development, research, applications, and operation in the fields of communications, control systems, digital signal processing systems, electromagnetics, digital and analog electronic circuits, physical electronics, computer-aided design and power systems. The curriculum is built around a strong basic core of mathematics, physics and engineering science. This is followed by intermediate courses in electrical engineering topics and finally a senior elective sequence including a senior design seminar and terminating in a capstone design course.

By choice of senior elective sequence, comprehensive coverage is provided in any one of the above fields.
Laboratory facilities are available in the engineering buildings allowing for basic as well as more advanced laboratory instruction in electronics, digital signal processing, control systems, microelectronics, communications, power, and digital systems.

Extension Program

The undergraduate program in electrical engineering is also offered as an extension program at Lancaster University Center, Lancaster, CA as part of the Antelope Valley Engineering Programs. This special program offered through the College of Continuing and Professional Education (CCPE) only accepts upper division transfer students with specific admission requirements. The extension program is a cohort-based model, allowing students to proceed as a group through the program in a prescribed lock-step sequence.

Major Declaration

Freshmen admission to engineering majors is to a 'pre-major' status (i.e., Pre-Electrical Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student's ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Electrical Engineering at the Long Beach campus must also meet similar major specific requirements. To become fully admitted into the Electrical Engineering major at the Long Beach campus, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum
cumulative 2.5 GPA and complete the following lower-division courses:

Core Lower Division Major Requirements (grade of "C" or better required):
- MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics & Heat)

General Education Foundations Courses:

Written and Oral Communication

To be admitted to the Electrical Engineering Extension Program offered at Lancaster University Center, all prospective students must have a minimum cumulative 2.5 GPA on all transferable courses attempted, and complete course work equivalent to the following:

Core Lower Division Major Requirements – 33 units (grade of C or better required):
- MATH 122 (Calculus I), MATH 123 (Calculus II), MATH 224 (Calculus III), PHYS 151 (Mechanics & Heat), PHYS 152 (Electricity & Magnetism), PHYS 254 (Modern Physics), EE 202 (Computer Methods), CECS 100 (Computer Programming), and EE 211/211L (Electrical Circuits with lab)

General Education Courses - 27 units:
- Category A – 6 units (Written and Oral Communication
- Category C – 9 units (Humanities, Arts)
- Category D – 9 units (US history, Constitution & American Ideals, Social Science)
- Category E – 3 units (Self-Integration)

Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an advisor to determine if the student's performance in the courses merits an additional semester to complete the requirements.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

Core:

- Take all the following courses:
  - EE 186 Introduction to Programming and Applications for Electrical Engineers (3)
    Prerequisite/Corequisite: ENGL 100.
  - EE 200 Trends in Electrical Engineering (1)
    Prerequisites: None.
  - EE 201 Digital Logic Design (3)
    Prerequisite: None
  - EE 202 Computer Methods in Engineering (3)
    Prerequisites: MATH 123 with a grade of "C" or better.
  - EE 211 Electric and Electronic Circuits I (3)
    Prerequisites: (EE 210/210L or PHYS 152) and (MATH 123 or equivalent) all with a grade of "C" or better.
  - EE 211L Electric Circuits Laboratory (1)
    Prerequisite/Corequisite: EE 211.
  - ENGR 101 Intro to the Engineering Profession (1)
    Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
  - MATH 122 Calculus I (4)
    Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113, or a grade of "C" or better in MATH 117.
  - MATH 123 Calculus II (4)
    Prerequisite: A grade of "C" or better in MATH 122.
  - MATH 224 Calculus III (4)
    Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.
  - MATH 370A Applied Mathematics I (or equivalent) (3)
    Prerequisites: A grade of "C" or better in MATH 123. Exclude freshmen.
  - PHYS 151 Mechanics and Heat (4)
    Prerequisite/Corequisite: MATH 122.
  - EE 301 Digital System Design (3)
    Prerequisite: EE 201 with a grade of "C" or better.
  - EE 310 Signals and Systems (3)
    Prerequisites: EE 211; and MATH 370A or equivalent all with a grade of "C" or better. Corequisite: EE 202.
  - EE 330 Analog Electronic Circuits I (4)
    Prerequisite: EE 211, EE 211L both with a grade of "C" or better.
  - EE 346 Microprocessor Principles and Applications (3)
    Prerequisites: EE 201, EE 202 all with a grade of "C" or better.
  - EE 350 Energy Conversion Principles (3)
    Prerequisites: (EE 203 or equivalent) and EE 211 and EE 211L all with a grade of "C" or better, or consent of instructor.
  - EE 360 Electromagnetic Fields (3)
    Prerequisites: MATH 224, EE 310 all with a grade of "C" or better.
  - EE 370 Control Systems (3)
    Prerequisite: EE 310 all with a grade of "C" or better.
  - EE 370L Control Systems Laboratory (1)
    Prerequisite/Corequisite: EE 370.
  - EE 380 Probability, Statistics & Stochastic Modeling (3)
    Prerequisites: MATH 123; (EE 203 or CECS 271 or CECS 274 or CECS 275) all with a grade of "C" or better.
  - EE 382 Communications Systems I (3)
    Prerequisite: EE 310 all with a grade of "C" or better.
  - EE 386 Digital Signal Processing (3)
    Prerequisites: EE 310 or CECS 301 all with a grade of "C" or better.

Take one of the following choices:

- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151 with a grade of "C" or better. Prerequisite/Corequisite: MATH 123.
- or both of the following:
  - EE 210 Electro-Magnetic Foundations in EE (3)
    Prerequisite: PHYS 151 all with a grade of "C" or better. Corequisites: MATH 123, EE 210L.
  - EE 210L Electro-Magnetic Foundations in EE Lab (1)
    Prerequisite/Corequisite: EE 210.

Select one course from the following:

- PHYS 254 Applied Modern Physics (3)
  Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.
- EE 220 Materials Sciences for Electrical Engineers (3)
  Prerequisites: MATH 224 and (EE 210 and EE 210L) all with a grade of "C" or better.

Each of the foregoing courses must be completed with a grade of "C" or better as well as ENGL 100 or equivalent. Other required courses are:
EE 400D Electrical Engineering Design Project (3)
Prerequisites: EE 301, EE 330, EE 370, EE 382 and EE 386 all with a grade of “C” or better; or consent of instructor.

EE 430 Analog Electronic Circuits II (3)
Prerequisite: EE 330 with a grade of “C” or better.
Prerequisite/Corequisite: EE 370.

EE 430L Analog Electronics II Laboratory (1)
Prerequisite/Corequisite: EE 430.

Each BSEE student must propose course work consisting of a capstone design course supported by at least two related courses, which form an area of in-depth study as approved by the EE Undergraduate Advisor. Possible areas of study include but are not limited to power, digital signal processing, controls, communications and electronics. A list showing the required supporting courses and capstone design course for each area of study is available from the EE Undergraduate Advisor. Combinations of the above areas of study or another area of study may be proposed to the EE Undergraduate Advisor. Additional elective courses must be chosen from EE 400 level courses to total at least 12 units. The entire program must total at least 120 units.

A grade of “C” or better is required for the capstone senior design course in the area of specialization.

Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in a community college or another college to meet curricular requirements while enrolled as an undergraduate in the Department of Electrical Engineering must petition the EE Undergraduate Advisor for prior approval to enroll in specific courses. This policy is for either concurrent enrollment or summer enrollment. Prior approval for transfer credit for upper division major courses may generally be approved for no more than six semester units, subject to approval by the EE Undergraduate Advisor and the EE Department Chair who may require sufficient information to determine if each requested course is deemed equivalent to an EE course at CSULB. Exceptions require approval by vote of the EE Undergraduate Curriculum Committee.

Bachelor of Science in Engineering

Option in Biomedical and Clinical Engineering (120 units)

The Department of Electrical Engineering administers an option in Biomedical and Clinical Engineering that allows the student to acquire substantive competence in biomedical engineering and biology. The program builds upon a strong base of biology, mathematics, physics, chemistry, and engineering science to develop a clinically oriented biomedical engineer to serve medical and industrial needs. It includes a core of standard electrical engineering courses as well as courses and laboratories in biomedical engineering, anatomy, physiology and biology. Elective units are available in the senior year to explore individual areas of interest.

Students planning to attend medical, dental or other health professional or graduate schools in Biomedical Engineering may select courses in Chemistry and/or Biology with the approval of the Biomedical Engineering advisor.

Laboratory facilities in the field of biomedical engineering are available in the engineering buildings; and laboratory facilities for anatomy and physiology are available on campus. Computer systems are available to simulate biological systems and to collect, process and display physiological data.

Major Declaration

Freshmen admission to engineering majors is to a "pre-major" status (i.e., Pre-Biomedical & Clinical Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student's ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Biomedical & Clinical Engineering must also meet similar major specific requirements. To become fully admitted into the Biomedical & Clinical Engineering major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower-Division Major Requirements:
- MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics & Heat)
- Written Communication, Oral Communication, and Critical Thinking

Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of “C” or better must be achieved in MATH 122 within one calendar year.

Transfer Students: A grade C or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements

Lower Division

Take all of the following courses:
- BIOL 207 Human Physiology (4)
  Prerequisites: GE Foundation requirements.
- CHEM 111A General Chemistry (5)
  Prerequisites: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.
- EE 200 Trends in Electrical Engineering (1)
  Prerequisites: None.
- EE 201 Digital Logic Design (3)
  Prerequisite: None.
- EE 202 Computer Methods in Engineering (3)
  Prerequisites: MATH 123 with a grade of "C" or better.
- EE 211 Electric and Electronic Circuits I (3)
  Prerequisites: (EE 210/210L or PHYS 152) and (MATH 123 or equivalent) all with a grade of "C" or better.
- EE 211L Electric Circuits Laboratory (1)
  Prerequisite/Corequisite: EE 211.
- ENGR 101 Intro to the Engineering Profession (1)
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.

ENGR 102 Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

Take one of the following choices:
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Or both of the following:
EE 210 Electro-Magnetic Foundations in EE (3)
Prerequisite: PHYS 151 all with a grade of "C" or better. Corequisites: MATH 123, EE 210L.
EE 210L Electro-Magnetic Foundations in EE Lab (1)
Prerequisite/Corequisite: EE 210

Select one course from the following:
PHYS 254 Applied Modern Physics (3)
Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.
EE 220 Materials Sciences for Electrical Engineers (3)
Prerequisites: MATH 224 and (EE 210 and EE 210L) all with a grade of "C" or better

Each of the foregoing courses must be completed with a grade of "C" or better as well as ENGL 100 or equivalent. The interdisciplinary courses as well as the Communications Studies (COMM) courses required for General Education must be taken for a letter grade.

Upper Division:

Take all of the following courses which must be completed with a "C" or better:

EE 301 Digital System Design (3)
Prerequisite: EE 201 with a grade of "C" or better.

EE 310 Signals and Systems (3)
Prerequisites: EE211; and MATH 370A all with a grade of "C" or better or equivalent. Corequisite: EE 202.

EE 330 Analog Electronic Circuits I (4)
Prerequisite: EE 211, EE 211L both with a grade of "C" or better.

EE 346 Microprocessor Principles and Applications (3)
Prerequisites: EE 201, EE 202 all with a grade of "C" or better.

EE 370 Control Systems (3)
Prerequisite: EE 310 all with a grade of "C" or better.

EE 370L Control Systems Laboratory (1)
Prerequisite/Corequisite: EE 370.

EE 382 Communication Systems I (3)
Prerequisite: EE 310 with a grade of "C" or better.

EE 386 Digital Signal Processing (3)
Prerequisites: EE 310 or CECS 301 all with a grade of "C" or better.

EE 400D Electrical Engineering Design Project (3)
Prerequisites: EE 301, EE 330, EE 370, EE 382 and EE 386 all with a grade of "C" or better; or consent of instructor.

EE 406 Medical Instrumentation and Measurements (3)
Prerequisite: EE 330 with a grade of "C" or better or consent of instructor or graduate standing.

EE 406L Biomedical Engineering Laboratory (1)
Prerequisite/Corequisite: EE 406.

EE 407 Applications of Computers in Medicine (3)
Prerequisite: EE 346 with a grade of "C" or better or consent of instructor or graduate standing.

EE 412. Fractals in Engineering (3)
Prerequisite: EE 310 with a grade of "C" or better or graduate standing.

EE 430 Analog Electronic Circuits II (3)
Prerequisite: EE 330 with a grade of "C" or better.
Prerequisite/Corequisite: EE 370.

MATH 370A Applied Mathematics I (3)
Prerequisites: A grade of "C" or better in MATH 123. Not open to Freshmen.

Take two additional approved biomedical electives to at least 120 units.

Bachelor of Science in Electronics Engineering Technology
For requirements and courses, see description in the Engineering Technology Programs section of this catalog.

Bachelor of Science in Computer Engineering Technology
For requirements and courses, see description in the Engineering Technology Programs section of this catalog.

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**Graduate Programs**

**Master of Science in Electrical Engineering**
This program affords an opportunity for engineers and others to advance their competency in analysis and design to better meet the high technology needs of local industry. Each student selects two core courses and three graduate courses in one area of emphasis, and the remaining courses must augment and support the area of emphasis. Some current examples of areas of emphasis are biomedical, communications, computer/communication networks and security, control systems and robotics, digital signal processing, digital and computer systems, electromagnetics and optics, electronics, networks and filters, and power.

Students may create other areas of emphasis with the approval of the graduate advisor. Students will choose one of the three alternatives: thesis, project, and comprehensive exam. Successful completion of a thesis provides a unifying culmination to the program, and an enhanced resume for future industrial or academic endeavor. A limited number of laboratory and teaching assistantships are available to qualified graduate students.

**Prerequisites**
1. A bachelor's degree from an accredited program in electrical engineering or a bachelor's degree from an accredited engineering, natural science or other appropriate program with the requirement that essential undergraduate deficiencies in electrical engineering are removed prior to Advancement to Candidacy.
2. The student should apply online at CSU Mentor. Do not send an application to the Department. International students should apply online at CSU Mentor or through the Center for International Education.

To be considered for admission the prospective graduate student must have attained a GPA of at least 2.8 for the last 60 semester units (90 quarter units) attempted prior to entry in the MSEE program. The general Graduate Record Examination (GRE) is required.

The student should apply online at CSU Mentor. Do not send an application to the Department. International students should apply online at CSU Mentor or through the Center for International Education.

Requirements

Take at least 2 out of the below 5 courses appropriate to area of emphasis and subject to graduate advisor approval:

EE 503 Advanced Systems Engineering (3)
EE 505 Advanced Engineering Mathematics for EE (3)
EE 508 Probability Theory and Random Processes (3)
EE 509 Network Theory (3)
EE 511 Linear Systems Analysis (3)

Complete 30 unit minimum in 400-, 500-, or 600-level courses as approved in advance by the graduate advisor.

Take one of the following three alternatives:

1. Thesis Alternative:
   - 500/600-level EE courses including core (15 units);
   - EE 698 Thesis or Industrial Project (6);
   - 400/500/600-level courses in EE (6 units);
   - Comprehensive Oral Exam on Thesis.

2. Project Alternative:
   - 500/600-level EE courses including core (21 units);
   - EE 697 Directed Research (6) on a capstone project;
   - 400/500/600-level EE courses (3 units);
   - Comprehensive Oral Exam on the capstone project.

3. Comprehensive Exam Alternative:
   - 500/600-level EE courses including core and at least three courses forming area of emphasis (24 units);
   - 400/500/600-level EE courses (6 units);
   - Comprehensive Written and Oral Exam on the area of emphasis.

Tentative Program

Upon matriculation graduate students must consult with the graduate advisor and a tentative program must be approved by the advisor by a few weeks into the first semester. The program must contain two core courses and exhibit an area of emphasis comprised of at least three related graduate courses (500 or 600 level). Students should obtain the MSEE Handbook, which covers the procedures and requirements, from the advisor or Electrical Engineering Department office or Electrical Engineering web.

Advancement to Candidacy

At least one semester before the graduating semester students must advance to candidacy. To apply for advancement to candidacy students must satisfy the following requirements:

1. All deficiencies must have been made up with a GPA of at least 3.0.
2. Currently enrolled in a regular session.
3. Demonstration of competence in technical writing by passing an appropriate writing course such as ENGL 317, ENGL 417, ENGL 418, or ENGL 419 with a grade of "C" or better or by providing acceptable proof of technical writing ability to the graduate advisor. This requirement can be waived for thesis or project students upon recommendation of the graduate advisor.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. Completion of at least 9 units as a graduate student in residence while maintaining both an overall GPA and a program GPA of at least 3.0. Students are advised to seek advancement before completing 15 units of the program.

Ph.D. in Engineering and Industrial Applied Mathematics

For requirements, see the description in the College of Engineering section of this catalog.

Courses (E E)

LOWER DIVISION

186. Introduction to Programming and Applications for Electrical Engineers (3)
Prerequisite/Corequisite: ENGL100 or equivalent
Introduction to programming using the C language, with emphasis on electrical engineering applications. Variables, conditional control flow loops, functions and program structure, pointers and arrays, input/ output processing. Introduction to embedded system applications and development platforms.
Letter Grade only (A-F). (Lecture 2 hours, laboratory 3 hours).

200. Trends in Electrical Engineering (1)
(Lecture 1 hour) Letter grade only (A-F).

201. Digital Logic Design (3)
Practical design of digital circuits. Basic topics in combinational and sequential switching circuits with applications to the design of digital devices.
Letter grade only (A-F). (Lecture-problems 2 hours, laboratory 3 hours).

202. Computer Methods in Engineering (3)
Prerequisites: MATH 123 with a grade of "C" or better.
Introduction to MATLAB and numerical methods with applications to engineering. Programming in MATLAB. Introduction to SIMULINK and other MATLAB toolboxes.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F). Not open for credit to students with credit in ENGR 202.
210. Electro-Magnetic Foundations in Electrical Engineering (3)
Prerequisite: PHYS 151 all with a grade of "C" or better.
Corequisites: MATH 123, EE 210L.
(Lecture-problems 3 hours) Letter grade only (A-F).

210L. Electro-Magnetic Foundations in Electrical Engineering Laboratory (1)
Prerequisite/Corequisite: EE 210.
Laboratory experiments demonstrating behavior of resistive circuits; capacitors and inductors; transient RL and RC circuits; sinusoidal (phasor) RL, RC and RLC circuits; motors, generators, and transformers.
Letter grade only (A-F).

211. Electric and Electronic Circuits (3)
Prerequisites: (EE 210/210L or PHYS 152) and (MATH 123 or equivalent) all with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

211L. Electric Circuits Laboratory (1)
Prerequisite/Corequisite: EE 211.
Laboratory investigation of Ohm's Law, Kirchhoff's Laws, voltage and current division, mesh and nodal analysis, Thevenin and Norton equivalents, superposition, simple RL, RC, RLC circuits, phasors. Use of voltmeters, ammeters, ohmmeters and oscilloscopes.
Identification of unknown elements.
(Laboratory 3 hours) Letter grade only (A-F).

220. Materials Sciences for Electrical Engineers (3)
Prerequisites: MATH 224 and EE 210 all with a grade of "C" or better.
Basic principles of optical and wave propagation. Introduction to quantum electronics. Fundamental aspects of photonics and materials sciences and their relevance to solid state electronic circuits.
Letter grade only (A-F). (Lecture-problems 3 hours)

260. Analytical Methods for Electromagnetics (4)
Prerequisite: EE 210 or PHYS 152 or equivalent all with a grade of "C" or better.
Fundamental concepts and analytical methods for electromagnetics.
(Lecture 3 hours, problem session 2 hours.) Letter grade only (A-F).

UPPER DIVISION

301. Digital System Design (3)
Prerequisite: EE 201 with a grade of "C" or better.
FPGA based digital design. Implementation of FPGA digital hardware systems based on the algorithms and implementation requirements using hardware description languages, optimization, logic synthesis, place and route methods. Implementation of finite state machines.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as EE 301H. Not open for credit to students with credit in EE 301H.

301H. Digital System Design (3)
Prerequisite: EE 201 with a grade of "C" or better.
FPGA based digital design. Implementation of FPGA digital hardware systems based on the algorithms and implementation requirements using hardware description languages, optimization, logic synthesis, place and route methods. Implementation of finite state machines.
Letter grade only (A-F). (Lecture-problems 2 hours, lab 3 hours)

310. Signals and Systems (3)
Prerequisites: EE211; and MATH 370A or equivalent all with a grade of "C" or better.
Letter grade only (A-F). EE 310H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 310H.

310H. Signals and Systems (3)
Prerequisites: EE211; and MATH 370A or equivalent all with a grade of "C" or better.
Letter grade only (A-F). EE 310H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 310H.

315. Introduction to Systems Analysis (3)
Prerequisite: MATH 123 with a grade of "C" or better.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

330. Analog Electronic Circuits I (4)
Prerequisites: EE 211, EE 211L both with a grade of "C" or better. Analysis and design of diode, bipolar junction transistor, field-effect transistor (MOSFET and JFET), and CMOS circuits. Op-Amp linear and nonlinear circuit applications. Digital electronic circuits. Laboratory includes transistor and operational amplifier circuit design and CAD tools.
(Lecture-problems 3 hours, laboratory 3 hours) Letter grade only (A-F).

346. Microprocessor Principles and Applications (3)
Prerequisites: EE 201, EE 202 all with a grade of "C" or better. Introduction to the design of modern RISC based microprocessors and microcontrollers. Programming problems written in C++ and assembly using the critical thinking skills learned in CECS100. Architectural principles learned in the classroom illustrated using the assembly programming language.
Letter grade only (A-F). (Lecture-problems 2 hours, lab 3 hours)

350. Energy Conversion Principles (3)
Prerequisites: (EE 202 or equivalent) and EE 211 and EE 211L, or consent of instructor all with a grade of "C" or better. Electromechanical energy conversion. Power transformers. DC, synchronous, and induction machines. Laboratory experiments on power electronics and rotating machinery.
Letter grade only (A-F). (Lecture-problems 2 hours, lab 3 hours)
Same course as EE 350H. Not open for credit to students with credit in EE 350H.
350H. Energy Conversion Principles (3)
Prerequisites: (EE 202 or equivalent) and EE 211 and EE 211L, or consent of instructor all with a grade of "C" or better.
Electromechanical energy conversion. Power transformers, DC, synchronous, and induction machines. Laboratory experiments on power electronics and rotating machinery.
Letter grade only (A-F). EE 350H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 350. (Lecture-problems 2 hours, lab 3 hours).

360. Electromagnetic Fields (3)
Prerequisites: MATH 224, EE 310 all with a grade of "C" or better.
Electric and magnetic field theory including propagation of plane waves in lossless and dissipative media. Maxwell's equations. Transmission lines and waveguides.
(Lecture-problems 3 hours) Letter grade only (A-F). Not open for credit to students with credit in EE 460.

370. Control Systems (3)
Prerequisite: EE 310 with a grade of "C" or better.
Control systems analysis; block diagrams, signal flow graphs, stability criteria, root locus, frequency domain analysis. Examples of classical control system design.
Letter grade only (A-F). (Lecture-problems 3 hours). Same course at EE 370H. Not open for credit to students with credit in EE 370H.

370H. Control Systems (3)
Prerequisite: EE 310 with a grade of "C" or better.
Control systems analysis, block diagrams, signal flow graphs, stability criteria, root locus, frequency domain analysis. Examples of classical control system design.
Letter grade only (A-F). EE 370H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 370. (Lecture-problems 3 hours).

370L. Control Systems Laboratory (1)
Prerequisite/Corequisite: EE 370.
Experiments which reinforce concepts learned in EE 370. Digital simulation modeling, analysis, and design. Real time applications, Letter grade only (A-F). (Laboratory 3 hours)

380. Probability, Statistics, and Stochastic Modeling (3)
Prerequisites: MATH 123; (EE 202 or CEC5 271 or CEC5 274 or CEC5 275) all with a grade of "C" or better.
Probability with an emphasis on computer modeling of probabilistic systems. Topics such as discrete and continuous random variables, moments, correlation, covariance, Markov processes and queuing theory presented from a mathematical foundation developed and exemplified with realistic computer simulations from students.
Letter grade only (A-F). (Lecture 2 hrs, Laboratory 3 hrs)

382. Communication Systems I (3)
Prerequisite: EE 310 with a grade of "C" or better.
Review of Fourier series and transforms. Introduction to passive, active, and digital filters. Basic elements of probability theory, statistics, concept of white noise, AM, DSB, SSB and vestigial modulation, narrowband and wideband FM.
Letter grade only (A-F). EE 382H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 382. (Lecture-problems 2 hours, lab 3 hours)

386. Digital Signal Processing (3)
Prerequisites: EE 310 or CEC5 301 all with a grade of "C" or better.
Introduction to discrete-time signals and systems, z-transform, digital filters, system design, and comparison to the analog counterparts. Multimedia-based laboratory experiments for discrete-time signals and systems in time and frequency domain, synthesis of digital sound/music with MATLAB or C.
Letter grade only (A-F). (Lecture-problems 2 hours, laboratory 3 hours). Same course as EE 386H. Not open for credit to students with credit in EE 386H.

386H. Digital Signal Processing (3)
Prerequisites: EE 310 or CEC5 301 all with a grade of "C" or better.
Introduction to discrete-time signals and systems, z-transform, digital filters, system design, and comparison to the analog counterparts. Multimedia-based laboratory experiments for discrete-time signals and systems in time and frequency domain, synthesis of digital sound/music with MATLAB or C.
Letter grade only (A-F). EE 386H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 386. (Lecture-problems 2 hours, laboratory 3 hours)

400D. Electrical Engineering Design Project (3)
Prerequisites: EE 301, EE 330, EE 370, EE 382 and EE 386 all with a grade of "C" or better; or consent of instructor.
First integrative learning capstone design course. Project design, design for testability, safety, manufacturability, and other constraints such as performance, cost, packaging, codes and standards. Ethics, social and environmental impact. Teamwork, written communication and presentations.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

405. Selected Topics in Electrical Engineering (3)
Prerequisites: Senior standing in electrical engineering or consent of instructor or graduate standing.
Selected topics from recent advances in electrical engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units with undergraduate advisor consent. Topics announced in Schedule of Classes. (Lecture-problems 3 hours).

406. Medical Instrumentation and Measurements (3)
Prerequisite: EE 330 with a grade of "C" or better or consent of instructor or graduate standing.
Design and analysis of medical instruments, electrodes and amplifiers for measurement of physiological signals. Letter grade only (A-F). (Lecture-problems 3 hours)

406L. Biomedical Engineering Laboratory (1)
Prerequisite/Corequisite: EE 406.
Laboratory study of medical instrumentation, transducers and computer data processing.
(Laboratory 3 hours) Letter grade only (A-F).
407. Applications of Computers in Medicine (3)
Prerequisite: EE 346 with a grade of "C" or better or consent of instructor or graduate standing.
Integrative learning capstone course with focus on principles of analysis and design of computing and data collection equipment for real-time on-line medical systems. Emphasis on written and oral communication and teamwork. (Lecture-problems, projects 3 hours) Letter grade only (A-F).

412. Fractals in Engineering (3)
Prerequisite: EE 310 with a grade of "C" or better or graduate standing.
Application of fractal geometry to system theory. Study of system dynamics leading to complex behaviors and chaos. Scaling laws, sensitivity to initial conditions, strange attractors, and fractal noise will also be discussed. (Lecture-problems 3 hours). Letter grade only (A-F).

420. Solid State Electronic Devices (3)
Prerequisite: PHYS 254 with a grade of "C" or better or graduate standing.
Not open for credit to students with credit in EE 320. (Lecture-problems 3 hours) Letter grade only (A-F).

427./527. Digital Filter Design and Audio Processing (3)
Prerequisite: EE 386 with a grade of "C" or better or consent of instructor.
Digital filter design methods, filter architectures, round-off noise, implementation and applications to audio signal processing. Additional projects required for EE 527. (Lecture-problems 3 hours) Letter grade only (A-F).

428./528. Speech Signal Processing (3)
Prerequisite/Corequisite: EE 486 or consent of instructor.
Additional projects required for EE 528. (Lecture-problems 3 hours) Letter grade only (A-F).

430. Analog Electronic Circuits II (3)
Prerequisite: EE 330 with a grade of "C" or better.

430H. Analog Electronic Circuits II (3)
Prerequisite: EE 330 with a grade of "C" or better.
Differential pairs, current sources, output stages, and integrated operational amplifiers. Op-amp applications and practical issues. Frequency response. Computer-aided circuit analysis and design. Feedback amplifiers and stability. Oscillators. Letter grade only (A-F). EE 430H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in EE 430. (Lecture-problems 3 hours)

430L. Analog Electronics Laboratory II (1)
Prerequisite/Corequisite: EE 430.
Advanced transistor, operational amplifier, and linear-integrated circuits and systems design laboratory. Not open for credit to students with credit in EE 433L. (Laboratory 3 hours) Letter grade only (A-F).

434./534. Mixed-Signal IC Design (3)
Prerequisites: EE 201 and EE 330 all with a grade of "C" or better or consent of instructor.

435./535A. Microelectronics (3)
Prerequisites: EE 201 and EE 330 all with a grade of "C" or better.
Theory of microelectronics integrated circuit design, IC fabrication technology, device characterization, modeling, digital and analog simulation tools, physical layout tools, digital standard cell library design, IC digital system designs, I/O pad design, full chip simulation and physical designs.
Additional projects required for EE 535A. (Lecture-problems 3 hours) Letter grade only (A-F).

435L. Microelectronics Laboratory (1)
Corequisite: EE 435.
Laboratory evaluation of IC process steps. Wafer probe, packaging, and final test. Empirical device model formulation from test data.
Not open for credit to students with credit in EE 420L. (Laboratory 3 hours) Letter grade only (A-F).

436./536. Microfabrication and Nanotechnology (3)
Prerequisites: EE 330 and PHYS 254; or MAE 300 all with a grade of "C" or better.
Techniques and the technology of miniaturization of electrical, mechanical, optical, and opto-electronic devices in sizes from millimeters to nanometers. Design examples of sensors, microlenses, cantilevers, and micromotors, process fabrication.
Additional projects required for EE 536. (Lecture-problems 3 hours) Letter grade only (A-F).

442. Mechatronic Systems Design (3)
Prerequisites: (EE 202 and EE 346) or (MAE 300 and MAE 376) all with a grade of "C" or better or consent of instructor.
Sensor and actuator characteristics, selection criteria, and modeling. Simulation and design of mechatronic systems. Hardware implementation and interfacing using microcontroller. Hardware-in-the-loop (HIL) simulation. Letter grade only (A-F). Same course as MAE 490G. Not open for credit to students with credit in MAE 490G. (Lecture-problems 3 hours)

443. System-on-Chip Architecture and Applications (3)
Prerequisite: EE 346 with a grade of "C" or better or consent of instructor or graduate standing.
Introduction to System-on-Chip Architecture by using ARM's MCU and MMU. Concepts and methodologies in designing a system-on-chip (SoC) based microprocessor core. Principles of modern SoC and processor design. Embedded applications based around SoC processor cores.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).
444. Microprocessor Based System Design (3)
Prerequisites: EE 346 with a grade of "C" or better or graduate standing.
Study of microprocessor based systems and their integration with peripheral devices including sensors, actuators, and serial communications. Following a progressive lab sequence, over the semester the student will design and construct a modern RISC microcontroller based system.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

447. Design of Electronic Systems (3)
Prerequisites: (EE 301 or 435) and EE 346 and EE 430 all with a grade of "C" or better, or graduate standing.
Prerequisite/Corequisite: EE 400D or graduate standing.
Second integrative learning capstone course, focusing on the design of analog and digital systems. Extensive laboratory projects, written communication, and teamwork. Computer aided circuit/system analysis and design using hardware descriptive language (HDL), PSPICE, Matlab/Simulink, etc.
(Lecture-problems 2 hours. laboratory 3 hours) Letter grade only (A-F).

448./548. Wireless and Mobile Networks and Security in Wireless Networks (3)
Prerequisite: EE 482 with a grade of "C" or better or equivalent.
Wireless and Mobile Ad-hoc Networks and Security. Ad-hoc and geographic routing, resource discovery, MAC, IP-mobility, mobility modelling, wired-wireless networks, security aspects. Lab Projects will include use of tools such as OPNET, Ethereal, Sniffer, Scanner, IDS, etc.
Advanced project required for EE 548. (Lecture-problems 3 hours) Letter grade only (A-F).

450. Electronic Control of Motors (3)
Prerequisite: EE 350 with a grade of "C" or better or graduate standing.
Prerequisites/Corequisites: EE 370 or graduate standing.
Characteristics of semiconductor power switches. Modeling and application of control theory to various types of motors. Bidirectional and four-quadrant converter topologies for motion control. Selection of drives to control AC and DC motors. Uninterruptible power supplies and adjustable speed drives.
(Lecture-problems 3 hours) Letter grade only (A-F).

451. Electric Vehicles (3)
Prerequisites: EE 350 and (EE 370 or MAE 376) all with a grade of "C" or better; or graduate standing.
(Lecture-problems 3 hours) Letter grade only (A-F).

452. Computer Applications in Power Systems (3)
Prerequisite: EE 350 with a grade of "C" or better or consent of instructor or graduate standing.
Modeling of power generation, transmission, and distribution systems, load-flow analyses, short-circuit studies, voltage drop and power loss calculations, transient stability and optimal power flow analyses. Application of specialized computer software for power system design and analyses.
(Lecture-problems 3 hours) Letter grade only (A-F).

453./553. Protection of Power Systems (3)
Prerequisites: EE 310, EE 350 all with a grade of "C" or better.
Protective relays, instrument transformers, low-voltage and high-voltage circuit breakers, protection of generators and motors, transformer protection and transmission line protection. Relay coordination and commercial power systems. Application of computer programs for protective device coordination. Additional projects required for EE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).

458. Design of Power System Components (3)
Prerequisites: EE 330 and (either EE 450 or EE 452 or EE 453) all with a grade of "C" or better; or graduate standing.
Prerequisite/Corequisite: EE 400D or graduate standing.
Second integrative learning capstone course, focusing on the design of electrical, electronic, and electrochemical components required for power conversion, control, transmission, distribution, protection and measurements in electric power systems. Emphasis on written communication and teamwork.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

462. Electromagnetics and Applications to Wireless Systems (3)
Prerequisite: EE 310 with a grade of "C" or better or graduate standing.
Electromagnetic field theory including transmission lines, vector fields, electrostatics and magnetostatics.
Letter grade only (A-F). Not open for credit to students with credit in EE 460 or EE 464. (Lecture-problems 2 hours, laboratory 3 hours)

470. Digital Control (3)
Prerequisites: EE 370, EE 370L, and EE 386 all with a grade of "C" or better, or graduate standing.
Analysis and synthesis of digital control systems. General application of both the Z-transform and the state-space approach for discrete system design.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

471. Design of Control Systems (3)
Prerequisite: EE 370 with a grade of "C" or better or graduate standing.
Prerequisite/Corequisite: EE 400D.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

474./574. Robot Modeling and Control (3)
Prerequisite: EE 370 with a grade of "C" or better. Recommended: EE 511
Basic methodology for analysis and design of robotic manipulators. Classification of robots. Homogeneous transformations, kinematics, dynamics, trajectory planning and control of robots. Application of robots in flexible manufacturing. Advanced projects required for EE 574. EE 511 is recommended as a pre/corequisite.
(Lecture-problems 3 hours) Letter grade only (A-F).

476./576. Neural Networks and Fuzzy Logic (3)
Prerequisite: EE 386 with a grade of "C" or better or consent of instructor.
Additional projects required for EE 576. Not open for credit to students with credit in EE 589/689. (Lecture-problems 3 hours) Letter grade only (A-F).
481./581. Satellite Communication Systems (3)
Prerequisite: EE 482 with a grade of "C" or better.
Basic orbital mechanics, link analysis, multiple access architectures and protocols, FDMA, TDMA, and CDMA systems. Synchronization techniques, modulation and coding techniques. Security and spread spectrum requirements. System design.
Additional projects required for EE 581. (Lecture-problems 3 hours) Letter grade only (A-F).

482. Communication Systems II (3)
Prerequisite: EE 382 with a grade of "C" or better or graduate standing.
Information sources and communication systems. Orthogonal series representation of signals, pulse and digital modulation techniques, band-pass digital communication systems, special topics in communications.
(Lecture-problems 3 hours) Letter grade only (A-F).

483. Digital Image Processing (3)
Prerequisite: EE 386 with a grade of "C" or better or graduate standing.
(Lecture-problems 3 hours) Letter grade only (A-F).

486. Digital Signal Processing for Multimedia Communications (3)
Prerequisite: EE 386 with a grade of "C" or better or graduate standing.
Discrete-time signals and systems, discrete Fourier transform, fast Fourier transform, spectral estimation, interpolation and decimation, filter design and structures and applications to multimedia communications. Laboratory projects for image processing, FFT receiver, signal detection, digital phase-locked loop.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

488. Communication System Design (3)
Prerequisite/Corequisite: EE 400D, EE 430, EE 430L, and EE 482, or graduate standing.
Second integrative learning capstone course, focusing on the design of communication systems/subsystems and their implementation in software and hardware. Emphasis on written communication and teamwork.
(Lecture-problems 2 hours, laboratory 3 hours). Letter grade only (A-F).

489. Digital Signal Processing Design (3) S
Prerequisites/Corequisites: EE 400D and EE 486) or graduate standing.
Second integrative learning capstone course, focusing on the design of digital signal processing systems and implementation of digital filters with fixed-point digital signal processors. Emphasis on written communication and teamwork.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

490. Special Problems (1-3)
Prerequisites: Minimum G.P.A. of 2.5 and consent of instructor.
Assigned topics in technical literature or laboratory projects and reports.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

495. Computational Physiology (3)
Prerequisite: EE 380 with a grade of "C" or better
This course will introduce students to cardiovascular (heart) and cerebrovascular (brain) systems and signals, and the computational methods to analyze related signals, and detect/predict a physiological event of interest.
Same course as: CECS 495. Not open for credit to students with credit in CECS 495.
Letter Grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

GRADUATE LEVEL

503. Advanced Systems Engineering (3)
Prerequisite: None
Modeling and analysis, and design of deterministic and stochastic systems. The building blocks of engineering optimization models ranging from network models with special structured, to unstructured linear and nonlinear optimization.
Letter grade only (A-F). (Lecture-problems 3 hours)

504. Introduction to Entrepreneurship for Engineers (3)
Prerequisite: Graduate standing in engineering or computer science.
Core business concepts and issues, essence of leadership. Understanding of finance, marketing, sales, and management issues from practical entrepreneurial perspective through classroom discussion, guest speakers' seminars, case study, and creation of business plan based on student's specific area of interest.
(Lecture-problems 3 hours) Letter grade only (A-F).

505. Advanced Engineering Mathematics for Electrical Engineers (3)
Prerequisite: Consent of instructor.
(Lecture–problems 3 hours) Letter grade only (A-F).

506./606. Theory and Practice of Biomedical Instrumentation (3)
Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 with a grade of "C" or better or consent of instructor.
Master's students register in EE 506; Ph.D. students register in EE 606. Additional projects required for EE 606. (Lecture-problems 3 hours) Letter grade only (A-F).

507./607. Advanced Biomedical Systems (3)
Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 with a grade of "C" or better or consent of instructor.
Novel trends in biotechnology, design and organization of modern hospital systems, and utilization of advanced technologies. Modeling and simulation of physiological and medical systems.
Master's students register in EE 507; Ph.D. students register in EE 607. Additional projects required for EE 607. (Lecture-problems 3 hours) Letter grade only (A-F).

508. Probability Theory and Random Processes (3)
Prerequisite: EE 380 with a grade of "C" or better.
Probability spaces, random vectors and processes, convergence concepts, stationarity and ergodic properties, second-order moments and linear systems, correlation and spectral representations. Some applications of random processes.
(Lecture-problems 3 hours) Letter grade only (A-F).
509. Network Theory (3)
Prerequisite: EE 386 or EE 430 all with a grade of "C" or better.
Network classifications and study of non-linear circuits. Analysis of
linear networks using topological and state-space techniques. Characterization of networks using scattering and other
parameters. Tellegen's theorem and its application.
(Lecture-problems 3 hours) Letter grade only (A-F).

510. Circuit Synthesis (3)
Corequisite: EE 509.
Synthesis of passive lumped networks, cascade synthesis (link with
filter synthesis), realization of commensurate distributed networks,
discrete passive networks.
(Lecture-problems 3 hours) Letter grade only (A-F).

511. Linear Systems Analysis (3)
Prerequisite: EE 470 all with a grade of "C" or better or equivalent
mathematical maturity.
Review of linear algebra and z-transforms. Continuous and
discrete-time systems. Sampled data systems. State-space linear
system analysis. Stability, reachability, and observability. Minimal
realization. State feedback and pole assignment. Asymptotic
observers. Examples of applications. Project on a related subject.
(Lecture-problems 3 hours) Letter grade only (A-F).

514. Advanced Circuit Synthesis and Design (3)
Prerequisite: EE 510 with a grade of "C" or better.
Scattering synthesis in (s-z) domains, wave digital filters. Lossless
bounded-real two-pair and orthogonal digital filters with an
emphasis on structures suitable for VLSI implementation.
(Lecture-problems 3 hours) Letter grade only (A-F).

526. High Speed Communication Circuits (3)
Prerequisite: EE 430 with a grade of "C" or better or consent of
instructor
Design of integrated circuits for high speed data communication.
Serial communication standards. Transceiver architecture. High
speed and broadband circuit design techniques. Serializer,
deserializer, clock recovery circuits. Channel equalization. Jitter
and channel interference issues.
(Lecture-problems 3 hours) Letter grade only (A-F).

527./427. Digital Filter Design and Audio Processing (3)
Prerequisite: EE 386 with a grade of "C" or better or consent of
instructor.
Digital filter design methods, filter architectures, round-off noise,
implementation and applications to audio signal processing.
Additional projects required for EE 527.
Not open for credit to students with credit in EE 513. (Lecture-
problems 3 hours) Letter grade only (A-F).

528./428. Speech Signal Processing (3)
Prerequisite/Corequisite: EE 486 or consent of instructor.
Principles and engineering applications of speech signal
processing. Speech synthesis, recognition, encoding, and
Additional projects required for EE 528. (Lecture-problems 3 hours)
Letter grade only (A-F).

531. CMOS Electronics (3)
Prerequisite: EE 430 with a grade of "C" or better.
Electronic design automation CAD tools, silicon compilers,
CMOS design, BiCMOS design (technologies, modeling, device
characterization and simulation), CMOS and BiCMOS subcircuits,
amplifiers, op-amps and systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

532./632. Analog Signal Processing (3)
Prerequisite: EE 430 with a grade of "C" or better or consent of
instructor.
Basic CMOS circuit techniques. Low-voltage and current-mode
signal processing. Switched-capacitor (SC) and switched-current
(SC) circuits such as amplifiers, integrators, S/H circuits, filters,
oscillators, D/A and A/D converters, etc. Advanced techniques for
corrections of nonideal behavior. Analysis and simulation projects.
Master’s students register in EE 532; Ph.D. students register in
EE 632. Additional projects required for EE 632. Letter grade only
(A-F). (Lecture-problems 3 hours)

533. Quantum and Optical Electronics (3)
Prerequisite: EE 360 or EE 462 all with a grade of "C" or better or consent of
instructor.
Modern quantum and optical concepts of relevance in lasers,
fiber optics, optical technology and semiconductor solid state
electronics. Basic theory and applications to state-of-the-art
electronics engineering.

534./434. Mixed-Signal IC Design (3)
Prerequisites: EE 201 and EE 330 both with a grade of "C" or
better or consent of instructor.
CMOS fabrication. Component layout. MOSFET modeling. Mixed-
signal devices such as D/A and A/D converters and phase-locked
Design using CAD tools.
Additional projects required for EE 534. (Lecture-problems 2 hours,
Laboratory 3 hours) Letter grade only (A-F).

535. VLSI Design (3)
Prerequisite: EE 430 with a grade of "C" or better.
Techniques for designing Very Large Scale Integrated (VLSI)
circuits using n-channel metal oxide semiconductors (n-MOS).
Not open for credit to students with credit in EE 520. (Lecture-
problems 3 hours) Letter grade only (A-F).

535A./435. Microelectronics (3)
Prerequisites: EE 201 and EE 330 both with a grade of "C" or
better or consent of instructor.
Theory of microelectronics integrated circuit design, IC fabrication
technology, device characterization, modeling, digital and analog
simulation tools, physical layout tools, digital standard cell library
design, IC digital system designs, I/O pad design, full chip
simulation and physical designs.
Letter grade only (A-F). Additional projects required for EE 535A.
(Lecture-problems 3 hours)

536./436. Microfabrication and Nanotechnology (3)
Prerequisites: EE 330; EE 320 or PHYS 254; or MAE 300 all with a grade of "C" or better.
Techniques and technology of miniaturization of electrical,
mechanical, optical, and opto-electronic devices in sizes from
millimeters to nanometers are presented. Design examples of
sensors, microlenses, cantilevers, and micromotors are covered
and process fabrication using latest technology demonstrated.
Additional projects required for EE 536. (Lecture-problems 3 hours)
Letter grade only (A-F).

540. Advanced Digital System and Computer
Architecture (3)
Prerequisite: None
Strongly recommended: EE 546.
High level computer architectures including studies of network
processors, security processing, embedded computers; system
design and implementation approaches including ASIC's, SOC's,
and networks on chip concepts. Simulation and design tools.
Project required.
(Lecture-problems 3 hours) Letter grade only (A-F).
545. Computer Communication Networks (3)
Prerequisite: Consent of instructor.
Design and analysis of computer communications networks including their topologies, architectures, protocols, and standards. LAN, WAN environments and access methods. Ethernet, ATM, bridges, routers, gateways and intelligent hubs. TCP/IP and other Networking protocols. Load balancing, traffic monitoring, use of simulation tools. (Lecture-problems-computer projects 3 hours) Letter grade only (A-F).

546. Advanced Microprocessors and Embedded Controllers II (3)
Prerequisite: None
Advanced concepts for embedded controllers, mobile processors, network processors, embedded Internet, and embedded Internet devices. Parallelism, multithreading, pipelining, coherence protocols, interconnection networks, clustering. Simulation and analysis tools. Project required.
(Lecture-problems 3 hours) Letter grade only (A-F).

547. Sensor Networks (3)
Prerequisite: Graduate Standing and consent of instructor.
Small and low power sensors and radio equipped modules replacing traditional wired sensor systems. Communication protocols and mesh networking in limited resource nodes, application development frameworks for sensor networks, modeling, simulation and virtualization.
(Lecture-problems 3 hours). Letter grade only (A-F).

548./448. Wireless and Mobile Networks and Security in Wireless Networks (3)
Prerequisites: EE 482 with a grade of "C" or better or equivalent.
Wireless and Mobile Ad-hoc Networks and Security. Ad-hoc and geographic routing, resource discovery, MAC, IP-mobility, mobility modelling, wired-wireless networks, security aspects. Lab Projects will include use of tools such as OPNET, Ethereal, Sniffer, Scanner, IDS, etc.
Advanced project required for EE 548. (Lecture-problems 3 hours) Letter grade only (A-F).

550. Power Electronics and Applications (3)
Prerequisites: EE 350 and EE 430 all with a grade of "C" or better. Power converters: rectifiers, inverters, choppers and cycloconverters. PWM and PFM techniques. Harmonics and filters. Magnetics. Applications in motor controls in industrial systems, energy conversion, HVDC transmission, aircraft and spacecraft power systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

551. Theory and Applications of DC/DC Converters (3)
Prerequisite: EE 550 with a grade of "C" or better or consent of instructor.
Modeling, analysis, design and application of DC/DC switch-mode converters.
(Lec-prob 3 hrs) Letter grade only (A-F).

552. Electric Drives and Applications (3)
Prerequisites: EE 370 and EE 452 all with a grade of "C" or better or consent of instructor.
Characteristics and applications of small electric machines including stepper motors, brushless DC motors, permanent-magnet synchronous motors and switched-reluctance motors. Motor performance, control and drive-circuit configurations.
(Lecture-problems 3 hours) Letter grade only (A-F).

553./453. Protection of Power Systems (3)
Prerequisites: EE 310 and EE 350 all with a grade of "C" or better. Protective relays, instrument transformers, low-voltage and high-voltage circuit breakers, protection of generators and motors, transformer protection and transmission line protection. Relay coordination and commercial power systems. Application of computer programs for protective device coordination. Additional projects required for EE 553.
(Lecture-problems 3 hours) Letter grade only (A-F).

556. Solar Power Systems (3)
Prerequisite: Graduate Standing in EE or consent of instructor.
Solar power systems requirements and analysis, criteria of environmental qualification, operation principles, design, fabrication, testing of key components. Process for device design, fabrication, testing methods, modeling and simulations. Solar thermal, solar power plants, satellite solar modules, Building Integrated Photovoltaics.
Letter grade only (A-F). (Lecture-problems 3 hours)

566. RF and Microwave Electronics (3)
Prerequisite: EE 360 or EE 462 with a grade of "C" or better or consent of instructor.
(Lecture-problems 2 hours, Laboratory 3 hours). Letter grade only (A-F).

573. Autonomous Systems (3)
Prerequisite: EE 370
Corequisites: EE 511 or consent of instructor
Selected methodologies for analysis and design of autonomous mobile systems. Rotation, motion kinematics, modeling of mobile robots, control of robots, path planning and obstacle avoidance. Vision and 3D sensors, Kalman and particle filters, localization and mapping. Project is required.
Letter grade only (A-F). (Lecture-problems 3 hours)

574./474. Robot Modeling and Control (3)
Prerequisite: EE 370 and EE 511/411.
Basic methodology for analysis and design of robotic manipulators. Classification of robots. Homogeneous transformations, kinematics, dynamics, trajectory planning and control of robots. Application of robots in flexible manufacturing. Advanced projects required for EE 574. EE 511 is recommended as a prerequisite.
(Lecture-problems 3 hours) Letter grade only (A-F).

575./675. Non-Linear Control Systems (3)
Prerequisite: EE 511 with a grade of "C" or better or consent of instructor.
Methodologies and results dealing with stability and robust stabilization of non-linear systems applied to robotics, aerospace, artificial neural networks, etc. Phase plane analysis, limit cycles, Lyapunov stability theory and its extension, Positive real transfer matrix and passivity, feedback linearization and stabilization, tracking, robust control.
Ph.D. students register in EE 675. Advanced projects for EE 675 students. (Lecture-problems 3 hours) Not open for credit to students with credit in EE 775. Letter grade only (A-F).
576./476. Neural Networks and Fuzzy Logic (3)
Prerequisite: EE 386 with a grade of "C" or better or consent of instructor
Additional projects required for EE 576. Not open for credit to students with credit in EE 589/689. (Lecture-problems 3 hours) Letter grade only (A-F).

580. Statistical Communication Theory (3)
Prerequisites: (EE 482, EE 505 and EE 508) all with a grade of "C" or better or consent of instructor.

581./481. Satellite Communication Systems (3)
Prerequisite: EE 482 with a grade of "C" or better.
Basic orbital mechanics, link analysis, multiple access architectures and protocols, FDMA, TDMA, and CDMA systems. Synchronization techniques, modulation and coding techniques. Security and spread spectrum requirements. System design. Additional projects required for EE 581. (Lecture-problems 3 hours) Letter grade only (A-F).

582. Spread Spectrum Communication Systems (3)
Prerequisite: EE 580 with a grade of "C" or better or consent of instructor.
Spread spectrum (SS) techniques. Direct sequence systems, frequency hopped systems. Generation and properties of pseudo random sequences. Electronic jamming and interference. Processing gain, carrier synchronization, code acquisition and tracking, information modulation and coding. Applications include ranging, CDMA etc. (Lecture-problems 3 hours) Letter grade only (A-F).

583./683. Digital Image Processing (3)
Prerequisite: EE 505 with a grade of "C" or better or consent of instructor.
Masters students register in EE 583; Ph.D. students register in EE 683. Additional projects required for EE 683. (Lecture–problems 3 hours) Letter grade only (A-F).

585./685. Advanced Digital Signal Processing (3)
Prerequisite: EE 486 with a grade of "C" or better or consent of the instructor.
Advanced topics in digital signal processing and applications to communication and power line systems, including adaptive filters, FFT-based OFDM transceivers. IEEE standards for green energy communication and optimization.
Masters students register in EE 585; Ph.D. students register in EE685. Additional projects for EE 685. (Lecture–problems 3 hours). Letter grade only (A-F).

586. Real–Time Digital Signal Processing (3)
Prerequisite: EE 486 or CECS 440 all with a grade of "C" or better or consent of instructor.
Digital signal processors architecture and language. Real–time DSP considerations and limitations. Digital filter and signal processing system implementations. (Lecture–problems 3 hours) Letter grade only (A-F).

587. Fiber Optic Networks (3)
Prerequisite: EE 360 with a grade of "C" or better, or consent of instructor
Introduction to optical networks. Operation of optical fiber, semiconductor lasers, photo detectors, and fiber optic components. Modulation and demodulation techniques for fiber optic communication systems. Design of optical transmission systems (Lecture-problems 3 hours). Letter grade only (A-F).

588. DSP for MMO Communication Systems (3)
Prerequisite: EE 508 or consent of instructor
Advanced topics in DSP and Communication systems with applications to space-time coded OFDM transceivers, MIMO wireless systems, LTE/LTE-advanced in physical layer, and next generation for mobile communications.
Letter grade only (A-F). (Lecture-problems 3 hours)

590. Selected Topics in Electrical Engineering (3)
Prerequisites: Graduate standing in electrical engineering and consent of instructor.
Selected topics from recent advances in electrical engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes. (Lecture-problems 3 hours)

591. Adaptive Systems (3)
Prerequisite: EE 508 with a grade of "C" or better.
Adaptive systems and their applications to communication, control, and signal processing systems.
(Lecture-problems 3 hours) Letter grade only (A-F).

606./506. Theory and Practice of Biomedical Instrumentation (3)
Prerequisites: Graduate standing in engineering or natural sciences; and either EE 406 with a grade of "C" or better or consent of instructor.
Master's students register in EE 506; Ph.D. students register in EE 606. Additional projects required for EE 606. (Lecture-problems 3 hours) Letter grade only (A-F).

607./507. Advanced Biomedical Systems (3)
Prerequisites: Graduate standing in engineering or natural sciences; and either EE 406 with a grade of "C" or better or consent of instructor.
Master's students register in EE 507; Ph.D. students register in EE 607. Additional projects required for EE 607. (Lecture-problems 3 hours) Letter grade only (A-F).

632./532. Analog Signal Processing (3)
Prerequisite: EE 430 with a grade of "C" or better or consent of instructor.
Basic CMOS circuit techniques. Low-voltage and current-mode signal processing. Switched-capacitor (SC) and switched-current (SI) circuits such as amplifiers, integrators, S/H circuits, filters, oscillators, D/A and A/D converters, etc. Advanced techniques for corrections of nonideal behavior. Analysis and simulation projects.
Master's students register in EE 532; Ph.D. students register in EE 632. Additional projects required for EE 632. Letter grade only (A-F). (Lecture-problems 3 hours).
675./575. Non-Linear Control Systems (3)
Prerequisite: EE 511 with a grade of "C" or better or consent of instructor.
Methodologies and results dealing with stability and robust stabilization of non-linear systems applied to robotics, aerospace, artificial neural networks, etc. Phase plane analysis, limit cycles, Lyapunov stability theory and its extension, Positive real transfer matrix and passivity, feedback linearization and stabilization, tracking, robust control.
Ph.D. students register in EE 675. Advanced projects for EE 675 students. (Lecture-problems 3 hours) Not open for credit to students with credit in EE 775. Letter grade only (A-F).

683./583. Digital Image Processing (3)
Prerequisite: EE 505 with a grade of "C" or better or consent of instructor.
Masters students register in EE 583; Ph.D. students register in EE 683. Additional projects required for EE 683. (Lecture–problems 3 hours) Letter grade only (A-F).

685./585. Advanced Digital Signal Processing (3)
Prerequisite: EE 486 with a grade of "C" or better or consent of the instructor.
Advanced topics in digital signal processing and applications to communication and power line systems, including adaptive filters, FFT-based OFDM transceivers. IEEE standards for green energy communication and optimization.
Masters students register in EE 585; Ph.D. students register in EE 685. Additional projects for EE 685. (Lecture–problems 3 hours) Letter grade only (A-F).

697. Directed Research (3)
Prerequisite: Graduate Standing. Advancement to Candidacy is strongly recommended.
Theoretical, experimental, or industrial problems in Electrical Engineering requiring intensive analysis culminating in a substantial report.
Credit/No Credit grading only. May be repeated to a maximum of 6 units with same topic in different semesters.

698. Thesis or Industrial Project (3-6)
Prerequisite: Advancement to Candidacy.
Planning, preparation and completion of a thesis (total 6 units), or industrial project (3 units), in electrical engineering.
Credit/No Credit grading only. May be repeated to a maximum of 6 units with same topic in different semesters.
Program Director: Ryan G. Fischer, Ph.D.
School Director: Brenda Vogel
Department Office: Engineering Technology (ET) 232
Telephone: (562) 985-8965
Faculty: Shirley Feldmann-Jensen, Peter Kreysa (Family and Consumer Sciences), William Goeller, James Hutchinson, Michael Bethany, Judith Colle, Doug Weeks, Valerie Lucas-McEwen, Christine Rodrigue (Geography), Joanne M. Tortorici Luna (Advanced Studies in Education and Counseling)
Graduate Advisor: Peter G. Kreysa
Administrative Assistant: Durrell Dew

Career Possibilities

In recent years, emergency services professions have become extremely competitive, with demands for personnel to further their education to attain promotion and keep up with technical advances. Those in the following fields are well-suited for this program:

• Firefighters
• Law enforcement
• Emergency medical services personnel
• Military personnel
• Emergency managers
• Public health practitioners
• Public administrators
• NGO administrators
• Business continuity planners
• Other professionals with a strong interest in how disasters influence their field

(Career possibilities require additional education or experience. For more information, visit www.careers.csulb.edu.)

Master of Science in Emergency Services Administration

The Master of Science in Emergency Services Administration (EMER) degree program at California State University, Long Beach (CSULB) is an entirely online program that will help students develop the leadership and critical thinking skills needed to build stronger organizations and disaster-resilient communities. The program will educate you in the interdisciplinary research and theory of disaster management as you create a project that directly strengthens and benefits your organization or community. This program is offered only through College of Continuing and Professional Education at a higher tuition rate.

Admission Criteria

1. Obtain admission to the graduate program by completing and forwarding the official CSULB graduate admissions forms and fees to the University’s Office of Enrollment Services. Each applicant for graduate standing shall have completed an appropriate baccalaureate degree from an accredited university.
2. A resume and a letter of intent that includes a summary of the applicant's reasons for seeking a master's degree in Emergency Services Administration. Both documents must be sent directly to the Department's Graduate Advisor.
3. Three letters of recommendation from persons able to testify to the applicant's academic ability, preferably from former professors or immediate supervisors. These letters must be sent directly to the Department's Graduate Advisor.
4. Have at least a 3.0 grade-point average in the last 60 semester units attempted. A student whose overall grade point average is less than 3.0, but who presents acceptable evidence of professional potential either through recent academic performance and/or experiential background may be admitted by special action of the Department's Graduate Committee.
5. Be accepted by the department and graduate advisor for admission to the program.

Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy, including successful completion of the Graduation Writing Assessment Requirement (GWAR);
2. Completion of all core courses;
3. Maintenance of “B” average (3.0 GPA) in all work completed in graduate program;
4. Approval of Emergency Management Graduate Faculty and Director of Graduate Studies and Research, College of Health and Human Services.

Requirements

Satisfactory completion of 32 units of approved graduate courses to include:

1. Take all of the following courses (23 units):
   - EMER 500 Information Literacy and Practical Writing Applications for Emergency Management
   - EMER 506 Emergency Planning and Management (3) Prerequisites: None.
   - EMER 530 Applied Research Methods and Analytical Techniques for Decision Support and Innovation (4) Prerequisites: EMER 506.
   - EMER 540 Emergency Management Organizations: Constructs for Influencing Complex Systems (3) Prerequisites: None.
   - EMER 548 Risk, Crisis, and Inter-Agency Communications (3) Prerequisites: EMER 500
   - EMER 661 Emergency Management Leadership Across the Megacommunity (3) Prerequisites: EMER 500, EMER 506, EMER 530 and 540.
   - EMER 671 Strategic Planning and Integrative Practices in Emergency Services Administration (3) Prerequisites: EMER 500, EMER 506, EMER 530, EMER 540, and EMER 548.
2. Take two additional elective courses selected in consultation with a faculty advisor (6 units).
3. In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three
(3) units and no more than six (6) units related to the completion of the culminating activity. Take all of the following courses as noted (4 units):

Project Students take both the following courses:

- EMER 694A Project Proposal Defense: Strategic Planning and Integrative Practices in Emergency Services Administration (1)
  Prerequisites: EMER 671 and Advancement to Candidacy
- EMER 694B Project: Strategic Planning and Integrative Practices in Emergency Services Administration (3)
  Prerequisites: EMER 671.

Thesis Students take the following course (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity):

- EMER 698 Thesis (1-4)
  Prerequisites: Advancement to Candidacy.

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### Courses (EMER)

**GRADUATE LEVEL**

#### 500. Information Literacy and Practical Writing Applications for Emergency Management (3)
Prerequisite: None
Corequisite: None

Research processes and methods for retrieving emergency management information. Writing preparation for academic and professional documents in emergency management. On-campus and free-source e-learning technologies to interface with program content, student and faculty communications, and course projects and evaluations. Construction of webpages.

Letter grade only (A-F). Not open for credit to students with credit in EMER 502 or EMER 504.

#### 506. Emergency Planning and Management (3)
The planning and management processes and the issues involved in large-scale emergencies. The nature of natural and technological risk and emergency will be explored via case studies. Public sector roles in contingency planning and response will be assessed.

Letter grade only (A-F). Same course as PPA 542. Not open for credit to students with credit in PPA 542 or EMER 542.

#### 530. Applied Research Methods and Analytical Techniques for Decision Support and Innovation (4)
Prerequisite: EMER 506

Critical analysis of interdisciplinary research, theory and multi-methods appropriate for application within emergency services and management are examined using quantitative and qualitative analysis.

Letter grade only (A-F).  

#### 540. Emergency Management Organizations: Constructs for Influencing Complex Systems (3)

Historical events, policies, and complex organizational settings that shape emergency management organizations. Critical reviews of modern and post-modern organizational theories associated with complex systems. Strategic improvements in emergency management organizations.

Letter grade only (A-F).

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### 543. Legal, Economic, and Human Issues in Emergency Administration (3)

Legal, strategic, political, economic, ethical, and human issues encountered in the management of disasters or major traumatic public events.

Letter grade only (A-F). (Discussion 3 hours.)

#### 544. Continuity of Operations, Recovery, and Emergency Management (3)

Prerequisites: EMER 500

Theories and practical applications of emergency management for those responding to or managing response to widespread natural and human-induced disasters.

Letter grade only (A-F).

#### 547. Continuity of Operations, Recovery, and Emergency Management (3)

Prerequisites: EMER 500 and EMER 506

Development and maintenance of comprehensive emergency management programs for business and industry. Plan development and implementation, vulnerability analysis, hazard identification, life safety, property protection, communications and community outreach.

Letter grade only (A-F).

#### 548. Risk, Crisis, and Inter-Agency Communications (3)
Prerequisite: EMER 500

Theory and practical applications of emergency communications for those responding to or managing response to widespread natural and human-induced disasters.

Letter grade only (A-F).

#### 601. Technology, Cybersecurity, and Emergency Management (3)
Prerequisite: EMER 500 and EMER 506

Role of technology in effective emergency management. Exploration of Internet, disaster simulation software, and geographic tools such as GIS, GPS, and direct and remote sensing devices through case study analyses and in-class simulations.

Letter grade only (A-F).

#### 605. Public Health Issues in Emergency Management (3)
Prerequisite: EMER 500.

Roles and responsibilities of the public health system in emergency management. Structure of public health systems, management tools, public health intervention strategies, communication, collaboration, and ethical considerations. Role of public health regarding assessments following disasters and maintaining public health standards.

Letter grade only (A-F).

#### 631. International Emergency Administration Systems: Comparative Analysis (3)
Prerequisite: EMER 500

Comparative analysis of international emergency management systems and structures. Implications of emerging threats and disasters in an increasingly interdependent world.

Letter grade only (A-F).

#### 650. Graduate Seminar (3)
Prerequisites: EMER 500 and EMER 506

Students will undertake literature reviews and/or research to explore emerging issues, trends and research in the field of emergency management.

Letter grade only (A-F).
661. Emergency Management Leadership Across the Megacommunity (3)
Prerequisites: EMER 500, EMER 506, EMER 530 and 540.
Competencies of professional emergency management defined through the megacommunity. Models of strategic leadership in all phases of disaster management, with often competing professional organizations and networks, across culturally and economically diverse constituencies, and for natural or human-made disasters.
Letter grade only (A-F).

671. Strategic Planning and Integrative Practices in Emergency Services Administration (3)
Prerequisites: EMER 500, EMER 506, EMER 530, EMER 540, and EMER 548
Capstone course focusing on all phases of disaster management of selected disaster case studies, a natural disaster and human-made event, using existing research literature, Internet-based simulation software, and post-incident evaluation techniques.
Letter grade only (A-F).

690. Selected Topics in Emergency Management (1-6)
Prerequisites: EMER 500 and EMER 506
Group investigation of selected topics.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.

694A. Project Proposal Defense: Strategic Planning and Integrative Practices in Emergency Services Administration (1)
Prerequisite: EMER 671 and Advancement to Candidacy
Capstone course synthesizing research on all phases of disaster management and research methodologies leading to the development and implementation of a collaborative group project designed to provide practical solutions to an existing problem within the emergency services megacommunity.
Letter grade only (A-F). May be repeated up to nine units in different semesters.

694B. Project: Strategic Planning and Integrative Practices in Emergency Services Administration (3)
Prerequisite: EMER 671
Presentation to EMER faculty of EMER 694A Capstone Group Project delivered through digital media. Evaluation of individual student electronic portfolios.
Letter grade only (A-F). May be repeated up to three units in different semesters.

695. Independent Study (1-6)
For students who wish to focus their studies on a specific area of emergency services administration which coincides with a faculty member’s research or practical expertise.
Letter grade only (A-F).

697. Directed Studies (3)
Prerequisites: Advancement to Candidacy
Research in an area of specialization under the direction of a faculty member.
Letter grade only (A-F).

698. Thesis (1-4)
Prerequisites: Advancement to Candidacy.
Planning, preparation, and completion of a thesis
Letter grade only (A-F).
The Mission of the College of Engineering is to serve the State of California, the nation, and society at large, by graduating well-prepared professionals, who are provided with excellent education and training in the fundamentals of their discipline through a combination of theory and laboratory practice, and who are provided with the ability and skills to expand knowledge and transform complex ideas into working systems.

The College of Engineering offers four-year curricula leading to Bachelor of Science degrees in the disciplines of Engineering, Computer Science, and Engineering Technology. The B.S. programs provide broad education and training for entry to the professions and for continuing academic work toward advanced degrees. The graduate programs in the college include Master of Science degrees in Aerospace, Civil, Computer, Electrical and Mechanical Engineering, and in Computer Science. The Master of Science in Engineering is also offered in interdisciplinary areas. The Ph.D. in Engineering and Industrial Applied Mathematics is offered jointly with The Claremont Graduate University. These programs provide opportunities to specialize in the areas of Aerospace, Biomedical, Chemical, Civil, Computer, Electrical and Construction Management.

The College of Engineering also offers undergraduate programs in electrical engineering and mechanical engineering as extension programs at Lancaster University Center, Lancaster, CA as part of the Antelope Valley Engineering Program. These special programs, offered through the College of Continuing and Professional Education (CCPE), have specific admission requirements and accept upper division transfer students only. The extension program employs a cohort-based model, expecting students to proceed as a group through the program in a prescribed sequence and placing greater emphasis on teamwork.

**ABET Accreditation**

The Bachelor of Science programs in Aerospace, Chemical, Civil, Computer, Electrical and Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

The Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.


**ACCE Accreditation**

The Bachelor of Science in Construction Engineering Management is accredited by the American Council for Construction Education (ACCE), website: http://www.acce-hq.org/.

**Programs at a Glance**

The following is a list of degree programs offered by the college. Details about each program is described in the respective sections of the catalog.

**Bachelor of Science:**
- Aerospace Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Engineering Technology
- Computer Science
- Construction Engineering Management
- Electrical Engineering
- Electrical Engineering - Undergraduate Extension
- Electronics Engineering Technology
- Engineering
  - Option in Biomedical and Clinical Engineering
- Mechanical Engineering
- Mechanical Engineering - Undergraduate Extension

**Minors:**
- Computer Science
- Computer Science Applications
- Environmental Engineering
- Web Technologies and Applications

**Master of Science:**
- Aerospace Engineering
Academic Standards

Preparation for Admission

High school students planning to enter engineering, engineering technology, or computer science are advised to pursue a program with courses in biology, physics, chemistry, advanced algebra, and trigonometry. The general requirements for admission to the University must be satisfied. Deficiencies in any of these areas may result in an extension of the time required to complete the program. Full-time students can complete any baccalaureate degree in engineering, engineering technology, or computer science in four years.

The curricula are also designed to accommodate students transferring from other colleges or universities. Transfer students should note and follow, where possible, the appropriate curriculum as outlined on the University Admissions website.

Most required courses are offered in multiple sections every semester. In addition, many required courses are also offered during Summer Sessions.

General Academic Requirements

The College of Engineering values good communication skills which are achieved through the General Education courses and are measured by the Graduation Writing Assessment Requirement (GWAR). A student must fulfill the GWAR before qualifying for any degree. Students are advised that, while specific course requirements vary depending on the nature of the subject, most College of Engineering courses require not only detailed analysis, and competent design, but also clear and concise written and oral reports and presentations. ENGL 100 or equivalent is a prerequisite to upper division laboratory courses.

Letter Grade Policy

A grade of "C" or better must be achieved in prerequisites for courses required of Engineering, Computer Science, and Engineering Technology majors.

Required Foundation courses must be taken for a Letter grade only, not Credit/No Credit.

Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in a community college or another college or university to meet curricular requirements while enrolled as an undergraduate in the College of Engineering must petition the appropriate department for prior approval to enroll in specific courses. This policy is for either concurrent enrollment or summer enrollment. University policy must also be complied with; see "Concurrent Enrollment" and "Transfer of Undergraduate Credit" in this Catalog. Courses not receiving prior approval may not be accepted for credit by the department.

The Engineering Student Success Center (ESSC)

Coordinator of Academic Advising
Jason Deutchman (562) 985-2729

Director of Professional Development & Internship
Emmitt Clark (562) 985-1719

Director of Outreach and Recruitment
Saba Yohanaes-Reda (562) 985-1463

The Engineering Student Success Center provides key services to students in an inclusive environment that fosters collaboration, community building and academic success skills. The center provides outreach and recruitment activities, first-year experience programs for freshmen and incoming transfer students, mandatory academic advising by professional and peer advisors, tutoring resources, professional development and practice services, and career and graduate school guidance. As a one-stop shop, the center encourages students to visit for help from professional advising staff. The center focuses its full efforts on informing, engaging and encouraging students to be self-directed in their educational planning process and overall academic success.

Undergraduate Programs

Minor in Environmental Engineering

This 18-unit interdisciplinary minor is designed for undergraduates from various engineering and science backgrounds who are interested in applying engineering approaches to environmental issues.

Requirements

A minimum of 6 units selected from the following core:

Take one of the following courses:

- C E 364 Environmental Engineering I: Fundamentals (3)
- Prerequisite: CHEM 111A, BIOL 200 or 201 or 202 with a grade of "C" or better.
- Prerequisite/Corequisite: CE 335.
- CH E 475 Environmental Pollution (3)
- Prerequisite: CHEM 220A or CHEM 227 with a grade of "C" or better, or consent of instructor.

Take the following course:

- CH E 455 Environmental Compliance (3)
- Prerequisite: CHEM 227 with a grade of "C" or better or consent of instructor.

Take 12 units from the following:

- CH E 415, CH E 445, CH E 485; C E 466; E T 409F
- Prerequisite: CHEM 220A or CHEM 227 with a grade of "C" or better, or consent of instructor.

Most of the courses in the minor require some background in engineering and/or chemistry. Upper division students majoring in Biology, Chemistry, Chemical Engineering, Civil Engineering, or Mechanical Engineering may have sufficient background to select from the above choices without needing additional prerequisites. Those majoring in other branches of science and engineering may need several additional courses in engineering and/or chemistry to meet prerequisite requirements of courses in this minor.

All prerequisites to the courses in the minor must be completed with a grade of "C" or better.
Graduate Programs

Master of Science in Engineering
Program Director: Antonella Sciortino

Typical tasks and responsibilities undertaken by students in the curriculum for this program would not fall within one of the traditional specialties in engineering, e.g. aerospace, chemical, civil, electrical and mechanical engineering, or computer science and engineering. The student may pursue an interdisciplinary program, approved by a graduate advisor, by selecting courses from the various departments of engineering. For information concerning the programs, special facilities, laboratories and research possibilities, contact the College of Engineering.

Prerequisites
1. A bachelor's degree in an ABET accredited curriculum in engineering with a minimum GPA of 2.7; or
2. A bachelor's degree with a minimum GPA of 2.7 in engineering, mathematics, natural science or other discipline with the requirement that essential undergraduate prerequisites in engineering are satisfied.
3. The general Graduate Record Examination (GRE) is required.
4. Graduate students must consult with a graduate advisor, with whom they will be working, for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.
5. The Graduation Writing Assessment Requirement (GWAR) must be met during the first semester in residence. Failure to attempt to fulfill the GWAR during the first semester will prevent registration in engineering courses in subsequent semesters.

Requirements

PLAN I
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Eighteen units of 500- and/or 600-level courses in engineering;
2. Six units of electives selected from approved graduate or 400-level courses from appropriate areas;

PLAN II
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Twenty-four units of 500- and/or 600-level courses in engineering;
2. Six units of electives selected from approved graduate or 400-level courses from approved areas;
3. Completion of a comprehensive written exam. Note: Students are strongly advised to read and be familiar with the campus regulations described under "Graduate Programs" elsewhere in this catalog.

Advancement to Candidacy
Students applying for advancement to candidacy must have:
1. completed all undergraduate deficiencies with grades of "C" or better;
2. attained an overall grade point average (GPA) of 3.0;
3. completed at least 12 units applicable to the degree with a GPA of at least 3.0;
4. fulfilled the Graduation Writing Assessment Requirement (GWAR). This requirement can also be met by presenting evidence that the student met the requirement while an undergraduate at CSULB or at certain CSU campuses;
5. program of studies approved by the program's graduate advisor.

Ph.D. in Engineering and Industrial Applied Mathematics
Program Director: Hamid Rahai

Degree Designation
In accordance with an agreement between CGU and CSULB, the degree is designated the Doctorate of Philosophy in Engineering and Industrial Applied Mathematics and is granted at Claremont Graduate University in the name of the two universities. The diploma indicates the dual nature of the degree and specifies that it is granted only when requirements have been satisfied in both subject areas as specified by the collaborating institutions.

Program Supervision
Overall program supervision is the responsibility of the Program Committee, consisting of the directors of the Joint Doctoral Program (JDP) from each institution, the Dean of Mathematics at CGU, and the Dean of Engineering at CSULB.

Admission Requirements
Students must be admitted to both institutions jointly. Admission will be granted to a limited number of qualified students; therefore, application should be made as early as possible. Applications are encouraged from both men and women, particularly from members of minority groups or individuals with disabilities. Completed applications must be received by April 15 for the fall semester or October 1 for the spring semester, although late applications are allowed at the discretion of the Program Committee. The Program Committee is responsible for making admission decisions consistent with campus regulations (see Application Procedure in this booklet). To be admitted to the Joint Doctoral Program, an applicant must have received a bachelor's or master's degree in science, engineering, or mathematics from an accredited institution. Moreover, he or she must have attained scholastic records and present confidential recommendations which indicate that he or she is well qualified to pursue, with distinction, advanced study and research. Be advised that admission may be refused solely on the basis of limited facilities in the option desired.
**GRE Requirement**

The analytical, verbal, and quantitative portion of the Graduate Record Examination (GRE) is required before admission. GRE subject examinations (mathematics and engineering) are not required. Applicants whose first or native language is not English are required to have a current minimum score of 550 (80 iBT on the new scale) on the Test of English as a Foreign Language (TOEFL); however, this requirement is waived for students with a bachelor’s or master’s degree from an accredited U. S. university.

**Registration and Enrollment**

It is important that students register and enroll in classes each semester at either CGU or CSULB. Failure to enroll at any given semester will be considered leave without permission (discontinued enrollment) and the student will be dropped from the program.

**Program Planning and Supervision**

At CSULB, an initial engineering advisor is assigned to the student at the time of admission. At CGU, the student needs to arrange with the program director, within the first semester of study, for a mathematics advisor. The student’s program of study is arranged individually in collaboration with their advisors; the two advisors confer periodically regarding the student’s progress. The Program Committee monitors the student’s overall performance.

**Course Work and Examinations**

A minimum 72 units of course work, independent study, and research (including transfer credit) must be completed. Transfer credit of up to 24 units of related courses at the master’s level is permissible on approval of the Program Committee; this course work must have been completed with at least a grade of "B" or above, at an accredited institution, and must be directly related to the joint program and the student’s goals. Of the 72 units, a minimum of 24 units must be completed in the graduate engineering program at CSULB and a minimum of 24 units in the graduate mathematics program at CGU. Both sets of 24 units must conform to the area requirements of the relevant institution and must be approved by the Program Committee. All degree requirements must be completed within seven years (or six with the transfer of 24 units according to CGU regulations) from the time a student begins graduate study.

Every doctoral student must maintain a cumulative grade-point average (GPA) of 3.0 and a grade-point average of 3.0 in all courses applicable to the degree. Furthermore, students must earn at least a grade of "B" or above in any course that is counted towards the course work requirement. Students are put on academic probation if they fail to maintain a cumulative or term GPA of at least 3.0 in all units attempted subsequent to admission to the degree program. After two consecutive semesters on probation, students are subject to disqualification if they fail to earn sufficient grade points to be removed from the probationary status.

**CSULB Minimum Course Requirement**

The following four courses (15 units) are required at CSULB to meet the 24-unit course requirement:

- ENGR 790: Advanced Special Topics in Engineering (3)
- ENGR 795: Advanced Directed Studies (4)
- ENGR 796: Doctoral Seminar (4)
- ENGR 798: Doctoral Dissertation (4)

The remaining 9 units of course work for students who have received transfer credit, may include courses needed for the Preliminary Examinations (see the Preliminary Examination section of the handbook.)

**Minimum Student Load Per Semester**

It is highly recommended that doctoral students enroll in at least 9.0 units per semester in order to demonstrate progress towards the degree. The CSULB director of the program, in consultation with the doctoral advisor, may require that a student take at least 9.0 units per semester if the student is not showing adequate progress.

These courses may include the following:

- ENGR 797A: Preparation for Ph.D. Preliminary Examinations
- ENGR 797B: Preparation for Ph.D. Qualifying Examination
- ENGR 797C: Research for Ph.D. Dissertation

Students may take from 4.0 to 12.0 units of ENGR 797A, ENGR 797B or ENGR 797C each semester, though these courses may not be used to fulfill the 72-unit course work. These courses are offered on Credit/No Credit bases and are designed to formally recognize the students’ efforts towards the program.

**Residency Requirements**

Doctoral students must complete their program within a period of seven years (or six with the transfer of 24 units) according to CGU regulations (see below). During this time, a minimum of 72 units of course work, independent study, and research (including transfer credit) must be completed. Normally no more than 16 units per semester may be credited toward the degree. No more than 12 units per summer session may be credited toward the degree. The transfer of credit form is available on the CGU website. The Program Committee will consider petitions for extensions and/or exemptions.

All degree requirements must be completed within seven years from the time a student begins graduate study. Work for which transfer credit is granted will be counted as part of the seven years, e.g., if transfer credit of 24 units (one year) is granted, the time limit will be six years.

The residency requirements for the Ph.D. may be met either by two semesters of full-time study in a 24-month period or by the completion of 48 units of course work within a 48-month period (including work in the summer session). There are special provisions for students transferring units as described below.

Students who receive transfer credit for 12 units or less may meet the residency requirement either by completing two full-time semesters of course work within a 24-month period or by completing 36 units within a 48-month period. Those receiving transfer credit for 13 to 24 units may meet the residency requirement by completing 24 units within a 36-month period. The seven-year maximum time period for the Ph.D. degree is reduced by six months for 12 units or less of transfer credit and by 12 months for 13 to 24 units of transfer credit.
Plan of Study

After consultation with their advisors, students are required, before the end of the second semester, to prepare and file with the Program Committee a Plan of Study for completing the course requirements for the degree. The purpose of the Plan of Study is to ensure that the student is aware of the requirements for the degree. The Plan of Study should indicate the areas of study that the student will be taking in preparation for the preliminary examinations. In consultation with the student's advisor and Program Committee, the Plan of Study may be altered at a subsequent time by petition.

If a student withdraws from the program after completing a substantial portion of the course work, a master's degree at either or both institutions is still possible by satisfaction of the appropriate requirements. Both CGU and CSULB require 30-36 semester units of course work for master's degrees.

Preliminary Examinations

The student is required to pass written preliminary examinations. These examinations consist of four examination areas: two in engineering and two in mathematics. These examinations are usually taken after completion of the relevant course work at each institution. These examinations are given two or three times a year at the discretion and under the control of the Program Committee. Should a student fail an examination, they may petition the Program Committee for one retake.

Before taking the first preliminary examination, the student is required to complete the Preliminary Examination Permission Form (available at the CSULB website, www.csulb.edu/colleges/coe, or at the CGU site, www.cgu.edu/math). This form requires the student to specify the four areas of the Preliminary Examination; the student's intended dissertation advisor and the directors of the Joint Doctoral Program must sign it. The purpose of this form is to certify that the student and dissertation advisor are in agreement on the set of examinations. If, in the course of time, this set of examinations and/or the advisor is amended, the form must be resubmitted. The preliminary examinations are considered completed when the four examinations specified on the student's form have been successfully passed. You must be enrolled at CSULB (e.g., enrolling in at least 4.0 units of 797A) in order to take the CSULB portion of the Preliminary Examinations. For a list of courses, please review the student handbook at our web site www.csulb.edu/coe/phd

Research Tool

Students in the Joint Doctoral Program must demonstrate proficiency in problem-solving ability using computer programs. This demonstration may take different forms depending on the student's engineering subdiscipline, but must include evidence that the student has used an appropriate computer language and an algorithmic method to solve a problem from an engineering discipline.

Research and Dissertation

Upon completion of at least 48 units of course work (including transfer units), the preliminary examinations, and the research tool requirement, a student embarks on the research phase of the Joint Doctoral Program. In preparation for the research phase, the student is expected to spend at least a semester in advanced graduate courses, seminars, or directed reading courses where exposure to research material is emphasized. From these and other sources, the student gains the ability to understand the motivation for research in engineering and applied mathematics and learns to apply research techniques.

Doctoral Committee

During entry to the program and through the period of the main body of course work at CGU and CSULB, the Program Committee will monitor the student's progress. Upon successful completion of the preliminary examinations, the student petitions the Program Committee to constitute the Doctoral Committee. The student chooses this committee with advice from the faculty advisor and with approval of the Program Committee. The committee must include at least two faculty members each from CGU and CSULB; it must also provide breadth and depth in mathematics and engineering in the chosen faculty members. The Doctoral Committee supervises the student's progress through research preparation and dissertation writing; it also administers the qualifying and oral examinations for the degree. The chair of the Doctoral Committee is the dissertation supervisor.

Research Proposal and Qualifying Examination

With these advanced courses as background, and with the guidance of the Doctoral Committee, the student defines an area of proposed research and prepares a written Dissertation Proposal containing an outline of the research to be undertaken and references to relevant source materials. The Dissertation Proposal is presented to the Doctoral Committee at least two weeks prior to the Qualifying Examination. The appropriate form under “Doctoral Degree Forms” can be obtained from the CGU website www.cgu.edu (under Current Students, Registrar Information). The Qualifying Examination is an oral presentation to the Doctoral Committee describing the planned research. The student is expected to present evidence both as to the mathematical content and to the engineering application of the proposed research, supporting such evidence with references to previous research in both areas. The Doctoral Committee judges the fitness and quality of the Dissertation Proposal from this presentation and from the written proposal. It subsequently communicates its recommendations to the Program Committee. Only upon a positive recommendation may the student embark on a dissertation. In the event of failure, the qualifying examination may be retaken once after petition to the Program Committee.

Advancement to Candidacy

After successful completion of the Qualifying Examination and certification that all other requirements are fulfilled, the student is advanced to candidacy. The appropriate form under “Doctoral Degree Forms” may be obtained from the CGU website. This must occur at least six months before the Final Oral Defense.
Dissertation and Final Oral Examination

Upon completion of the research, the student will prepare the dissertation in accordance with CGU regulations. A final draft of the dissertation will be presented to each member of the Doctoral Committee at least three weeks prior to the final oral examination. The appropriate form under “Doctoral Degree Forms,” along with an abstract of the dissertation, must be filed with CGU’s Office of Admission and Records three weeks before the exam. This deadline is very strict and no exceptions will be made. Please see the CGU website under “Academic Calendar” for the final defense scheduling dates. The oral defense will normally be held on the campus of the dissertation supervisor.

Policies and Procedures

1. Throughout their entire program of study, unit-taking students must be registered at either CGU or CSULB. Students, who intend not to take course work at either institution, including those who have finished their required units, must take the necessary steps to maintain continuous enrollment. This is achieved by registering for Math 499 (Doctoral Study) at Claremont Graduate University or by registering for Engineering 798 (Doctoral Dissertation) at California State University, Long Beach. At least two semesters of registration for Math 499 at CGU must be maintained during the last year prior to graduation. In order for the degree to be conferred, a student must meet all regulations as stated in the CGU Bulletin under “Degree Regulations.”

Requests for leave of absence must be submitted to each registrar’s office and approved by both institutions according to the standards of each; upon approval of leave the student should advise the math office at CGU and the office of the Joint Doctoral Program at CSULB. Students should contact each registrar’s office for leave of absence policies. If the student fails to advise the registrar at CGU of his/her leave granted by CSULB, he/she will be dropped from the program (CGU has no official arrangement for leaves). Upon return, the student will be required to pay CGU a reinstatement fee in addition to regular semester tuition.

2. International students registered for units at CSULB must provide the CGU International Student Advisor, Marianna Panossi, with proof of registration within two weeks of the beginning of the semester at CGU. Proof of full-time registration (8 units minimum) is required to maintain immigration status. (In the circumstance of completion of units, registration in Doctoral Study, CGU Math 499, is required.)

3. Students should arrange for advisors, one in math at CGU and one in engineering at CSULB, at the earliest opportunity. The program committee will help provide advisors.

4. After consultation with their advisors, students must submit a plan of study, including a petition for transfer of credits, if applicable, during their first year of study. The Plan of Study must be approved and transfer of units recommended to the Registrar by the program committee.

Procedures for Student Admission

1. Students must complete application forms for both CGU and CSULB. The completed application package must include official transcripts, three letters of reference (preferably on the forms supplied in the CGU package), a personal statement and a resume. Current, official GRE scores are required. Scores may not be older than 5 years.

2. The completed application package (including a separate Long Beach fee and application) must be submitted to the CGU Admissions Office, 160 East Tenth Street, Claremont, CA 91711-6163. Do not send application materials to CSULB as this will result in considerable delay. Both application fees are required.

3. Online applications are acceptable for the Joint Program; however, consult the Program Advisors at CGU and CSULB for appropriate procedures.

4. The CGU director of the CSULB/CGU Joint Doctoral Program, Marina Chugunova, reviews completed files. In the event of a negative review, a rejection letter is issued by CGU. In the event of a positive review, the application, along with a copy of the completed file, is forwarded to the CSULB director of the CSULB/CGU Joint Doctoral Program, Dr. Antonella Sciortino.

5. Results of the Long Beach review are transmitted back to CGU Math. Upon a positive review by CSULB, the application and fee are sent to the CSULB Admissions Office to be processed. A negative review initiates a rejection letter from CGU.

6. Upon admission to the program, CGU will generate two admission letters; one is mailed to the student and one is sent to CSULB. This letter includes a decision card and specifies a required $200 tuition deposit that should be submitted to CGU if the student chooses to accept the offer of admission.

7. Students admitted to provisional status must provide the materials needed to complete their files before the end of their first semester of enrollment. Official scores for the GRE General Test are required of all students before admission to full graduate standing. The joint faculty program committee will review completed files for change of status.

8. The academic progress of students admitted to conditional status will be reviewed by the program committee prior to a decision about change of status.

Courses (BME)

100. Introduction to Biomedical Engineering (1)
Prerequisite: None

Introduction to major topics and concepts in Biomedical Engineering. Current and future trends and challenges in various subfields of Biomedical Engineering. Social, ethical and economical issues related to biomedical technology. Exploration of career and professional development opportunities.

Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters. (Lecture 1 hour)
201. Programming for Biomedical Engineering (3)
Prerequisite: MATH 122
Introduction to the constructs in the MATLAB programming language. Array and matrix operations, functions and function handles, control flow, plotting and image manipulation, cell arrays and structures, and various related toolboxes. Programming projects/examples will emphasize Biomedical Engineering applications.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (Lecture 2 hours, Laboratory 3 hours)

Courses (ENGR)

LOWER DIVISION

100. Fundamentals of Engineering Analysis (4)
Prerequisites: Appropriate ELM score, ELM exemption, or MAPB11.
Use of an application-oriented, hands-on approach to math topics in a variety of core engineering courses: analysis of experimental data: applications of MATLAB in solving engineering problems.
Letter grading only (A-F). (Lecture 3 hours, Laboratory 3 hours)

101. Introduction to the Engineering Profession (1)
Prerequisite: Freshman standing or consent of instructor.
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122
Freshman orientation seminar on careers in engineering. Speakers from various fields illustrate opportunities and challenges in the engineering profession.
(Lecture-problems 1 hour) Letter grade only (A-F). Same course as ENGR 101H. Not open for credit to students with credit in ENGR 101H.

101H. Introduction to the Engineering Profession (1)
Prerequisite: Freshman standing or consent of instructor.
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122
Freshman orientation seminar on careers in engineering. Speakers from various fields illustrate opportunities and challenges in the engineering profession.
Letter grade only (A-F). Same course as ENGR 101. Open to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in ENGR 101. (Lecture-problems 1 hour)

102. Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better.
Development of skills and identification of strengths and weaknesses for success in a COE major.
(Lecture 1 hour). Letter grade only (A-F). Same course as ENGR 102H. Not open for credit to students with credit in ENGR 102H.

102H. Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better.
Development of skills and identification of strengths and weaknesses for success in a COE major.
Letter grade only (A-F). Same course as ENGR 102. Open to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in ENGR 102. (Lecture 1 hour).

123. Inventions and Innovations: Good, Bad, and Weird (3)
Use of language, thought, and logic in science, distinguishing scientific fact from science fiction. Critical review of technological achievements from ancient times to the present, from practical inventions to perpetual motion machines. Science, pseudoscience, and paranormal. Experimentation and witchcraft.
(Lecture-Problems 3 hours)

130. Health, Energy, Environment, Transportation (HEET) (3)
Prerequisites: Completion of high school classes in geometry, algebra, chemistry, and environmental sciences.
Introductory course in healthy environment requirements, renewable energy, elements green design, transport systems and management, economics, environmental impacts of transportation. Hybrid, module-based class, with simulations, interact exercises, design projects and assessments renewable energy, green design, water resources, and air quality.
Letter grade only (A-F). (Lecture 3 hours)

200H. Introduction to Engineering Honors Program (1)
Prerequisites: ENGR101 and ENGR 102.
Engineering honors program organization and procedures. Introduction to professional societies, technical communication, team-building, networking, and other engineering career-advancing skills. Participating in community engagement activities.
Credit/No Credit grading only.

203. Engineering Problems and Analysis (3)
Prerequisite: MATH 122 with a grade of "C" or better; Corequisite: ENGR 203L.
Formulation of engineering problems and methods for their analysis. Application of vectors, matrices, derivatives and integration into engineering problems. Computer aided analysis using MATLAB, MathCad, etc.
(Lecture - Problems hours) Letter grade only (A-F).

203L. Engineering Problems and Analysis Laboratory (1)
Prerequisite: MATH 122 with a grade of "C" or better; Corequisite: ENGR 203.
Computer-based exercises on fundamental concepts such as vectors, matrices, derivatives, integrals. Practical engineering problems are assigned and solved using MATLAB.
(Laboratory 3 hours) Letter grade only (A-F).

296. Introduction to Biomedical Research Methods (3)
Prerequisites: GE foundation requirements and consent of instructor.
Introduction to principles and ethics of experimentation, hypothesis formulation, and testing. Data measurement, analysis and presentation. Students will learn how to find and read scientific literature, keep a laboratory notebook and basic data graphing and analysis skills.
Not open for credit to students with credit in NSCI 296.
Letter grade only (A-F). Same course as: NSCI 296. (Lecture 3 hours)
300H. Introduction to Engineering Honors Research (1)
Prerequisites: ENGR200H, Junior standing.
Introduction to engineering research for honors students, including proposal writing, literature reviews, formal research methods and publication of results. Introduction to departmental honors program advisors and exposure to active areas of research in the college. Credit/No Credit grading only.

302. Energy and Environment: A Global Perspective (3)
Prerequisites: G.E. Foundation requirements, one or more Exploration courses, and upper-division standing.

310. Business Communications in Engineering Profession (3)
Prerequisites: ENGL 100 or GE Composition (Area A1), COMM 110 all with a grade of "C" or better.
Credit/No Credit grading only. (Lecture-Problem 3 hours) May be used to satisfy the GWAR. Students who have failed the WPE at least once can take the course and submit a portfolio at the end for GWAR credit that will be issued if the student passes the portfolio that is reviewed by a committee.

340. Guitar Electronics: Engineering Sound (3)
Prerequisites: Upper division standing, GE Foundation requirements, one course from G.E. category Blb.
Historical review of electro-magnetic principles and their application to the reproduction, modification, and creation of sound. The electric guitar, its amplifiers, and special effects devices (analog and digital) will be used to gain practical experience. Electrical safety, physiology and physics of the ear.
Not open for credit to students with credit in EE 333. (Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

350. Computers, Ethics and Society (3)
Prerequisites: 3 units from GE Category A.1 (Writing) and 3 units from GE Category D (Social and Behavioral Science).
Examination of the social impact of information technologies. Topics include a survey of the technology (software, hardware and key applications), ethical obligations of specialists, the computer in the workplace, shifts of power, privacy, and legal issues related to computing.
(Lecture-problems 3 hrs)

360. Robotic Technology in Health Care (3)
Explores various robotic innovations developed for biomedical applications and their global impact on the quality of patient care, economy, and policy through new methods and tools for diagnosis and treatment, clinical training, education, and rehabilitation.
Letter grade only (A-F). (Lecture- Problems 3 hours)

361. Scientific Research Communication (3)
Prerequisite: G.E. foundation courses; score of 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Introduction to technical writing for students pursuing research careers. Accessing and using research literature. Writing technical and research reports for various purposes and audiences. Oral presentation of research and scientific information. Includes intensive writing.
Letter grade only (A-F). Same course as HHS 361, CLA 361, and NSCI 361. Not open for credit to students with credit in HHS 361, CLA 361, or NSCI 361. (Lecture 3 hours)

370. Astronautics and Space (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Combines the disciplines of space engineering with economics, human physiology, satellite meteorology, earth resources and environmental science, astronautics and space exploration. Emphasis on oral and written communications, numeracy and use of computers. Extensive use of computer animation, videographics and the Internet.
(Lecture–problems 3 hours) Letter grade only (A-F).

392. Water: People, Politics, and Processes (3)
Prerequisite: GE Foundation requirements.
Explores the impact of water resources management on society, economy, and governance through socio-political and hydrological overviews as well as both domestic and international case studies. Letter grade only (A-F). Same course as I/ST 350. Not open for credit to students with credit in I/ST 350. (Lecture-Problems 3 hours.)

432. Logistics Systems Engineering (3)
Prerequisite: Consent of instructor.
Logistics concepts, methods and techniques for engineering. Logistics from a historical perspective, the economic impact of logistics, the engineering tool chest, and logistics as an integrating function. Logistics systems requirements and design; transportation and distribution, inventory analysis and operational support.
(Lecture-problems 3 hours) Letter grade only (A-F).

492B. Internship In Engineering (3)
Prerequisites: Major in the College of Engineering, completion of 9 units of upper division COE coursework, a 2.5 GPA overall or 2.75 GPA in the student's major, and consent of instructor prior to registration.
Qualifying students must provide contact information for the major- or career-related assignment in private industry or in public agencies for which the course is being used. The position may be either a volunteer or paid work assignment. The instructor is required to visit the work site. Learning assignments will be arranged through the Career Development Center and the instructor. Final written report required.
Minimum of 120 hours of field experience required. Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters. (Activity 6 hours)

496. Advanced Behavioral Research Methods (3)
Prerequisites: (ENGR 296) or (NSCI 296), and (HHS 361) or (CLA 361) or (ENGR 361) or (NSCI 361), or consent of instructor.
An advanced study of the theoretical and practical aspects of conducting biomedical research including hypothesis formulation, experimental design, assessment of error within empirical data, and the preparation of sound and fundable grant proposals.
Not open for credit to students with credit in NSCI 496.
Letter Grade Only (A-F). Same course as: NSCI 496. (Lecture 3 hours)

496H. Honors Directed Research (1-3)
Prerequisite: Junior Standing
Theoretical, experimental, or industrial problems in an area approved by the Honors Advisor requiring advanced analysis culminating in a substantial report.
Letter grade only (A-F). May be repeated for a maximum of 3 units with same topic in different semesters.
498. Engineering Systems Senior Project (3)
Prerequisite: Senior Standing.
Senior Project in Engineering Systems. Design and development of a senior project. Presentation of oral and written report. (Seminar 3 hours) Letter grade only (A-F).

498H. Honors Thesis (1-3)
Prerequisite: Senior Standing
Planning, preparation and completion of a thesis or project, in an area approved by the Honors Advisor.
Letter grade only (A-F). May be repeated for a maximum of 3 units with same topic in different semesters.

GRADUATE LEVEL

513. Optimal Engineering Design Decision-Making (3)
Prerequisite: COE Graduate Standing or consent of instructor.
Application based overview of methods for making optimal design decisions, involving both theory and practical usage; importance of modeling; design of experiments; linear and nonlinear optimization; multiple objectives; design under uncertainty; decision-making algorithms; project work required.
Lecture-problems 3 hours. Letter grade only (A-F).

570. Applied Data Analysis for Engineers (3)
Prerequisites: Graduate standing or consent of instructor.
This course covers signal processing, data mining and machine learning techniques and algorithms which are frequently used to analyze engineering data. Practical projects/assignments from various engineering fields will be given to exemplify the concept.
Letter Grade only (A - F). (Lecture-problems 3 hours)

691. Curricular Practical Training (1)
Prerequisite: Graduate Standing, Completion of 18 units of graduate work, Advancement to Candidacy, and good standing.
Curricular Practical Training class provides international graduate students in the College of Engineering with opportunities to gain practical experiences in their field of study.
Credit/no credit only. May be repeated to a maximum of 3 units in different semesters.

790. Selected Topics in Engineering (1-4)
Prerequisites: MS or equivalent and formally admitted to the Ph.D. program.
Each offering is based on an area of engineering in which recent advances have been made.
Letter grade only (A-F). Topics announced in the Schedule of Classes.

795. Advanced Directed Studies (4)
Explorations of theoretical and experimental (if applicable) Engineering problems in great depth with emphasis on mathematical modeling and analysis. Students must present the findings in a formal report and a seminar.
Letter grade only (A-F).

796. Doctoral Seminar (2)
Prerequisite: Graduate Standing.
Research seminar on advanced technical fields.
May be repeated to a maximum of 4 units in different semesters. (Seminar 2 hours) Letter grade only (A-F).

797A. Preparation for Ph.D. Preliminary Examinations (4-12)
Prerequisite: Graduate Standing.
Tutorial. Limited to doctoral students who are preparing for the preliminary examinations.
ENGR 797A does not count towards the 48 units of course requirement. Credit/No Credit grading only.

797B. Preparation for Ph.D. Qualifying Examination (4-12)
Prerequisite: Graduate Standing.
Tutorial. Limited to doctoral students who are preparing for the qualifying examination.
ENGR 797B does not count towards the 48 units of course requirement. Credit/No Credit grading only.

797C. Research for Ph.D. Dissertation (4-12)
Prerequisite: Graduate Standing. Tutorial. Limited to doctoral students who are preparing or working on the dissertation research.
ENGR 797C does not count towards the 48 units of course requirement. Credit/No Credit grading only.

798. Doctoral Dissertation (4-12)
Prerequisites: Successful completion of the Ph.D. preliminary examinations, research tool test, and at least 48 units of course work. A written dissertation proposal containing an outline of the research to be undertaken and references to relevant source material must be submitted. Only upon a positive recommendation a student may embark on a dissertation.
Letter grade only (A-F).

Courses (MSEM)

UPPER DIVISION

406B. Engineering Economy and Administration (3)
Prerequisite/Corequisite: ECON 300 or consent of instructor.
Engineering management principles and economic analysis: with time value of money, after-tax analysis for rate of return. Graduate students will be required to do an additional assignment.
Letter grade only (A-F).

GRADUATE LEVEL

506B. Management of Engineering Technology and Innovation (3)
Prerequisite: Graduate engineering standing.
Analysis of the principles and theory of engineering administrative organizations, information systems, management functions, decision making tools, strategies and administrative policy formulations.
Letter grade only (A-F).

507B. Engineering Project Management (3)
Prerequisite: Graduate engineering standing.
Theory and philosophies of project management, principles of internal and industrial organization planning and control systems, motion in time study, industrial statistics, industrial research as aid to decision making.
Letter grade only (A-F).

508B. Systems Engineering and Integration (3)
Prerequisite: Senior standing or consent of instructor.
Introduction to the tools and methods employed by systems engineers in the aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in the context of integrated product teams and the product life cycle.
Letter grade only (A-F).
511B. Advanced Manufacturing Management Systems (3)
Prerequisite: Consent to instructor.

570B. Engineering Management Principles and Applications (3)
Prerequisite: Graduate standing, or consent of instructor.
Engineering management principles/applications. Relationships of management functions -modern products or service based companies. Technical organization in global market place. Reengineering, empowerment, concurrent engineering, and systemic thinking. Evolutionary theories of management. Strategic planning, goal setting, communication, resource distribution, etc. Team projects.
Letter grade only (A-F).

596B. Special Projects in Engineering Management (3)
Prerequisites: Eligible for advancement to candidacy and consent of instructor.
Under faculty supervision students will pursue synthesis work, as a culminating experience, on the topics learned for the interdisciplinary MSEM degree. In consultation with the Program Advisor, an Independent Study form must be completed. An acceptable project report must be submitted.
May be repeated to a maximum of 6 units. Letter grade only (A-F).
Introduction
The Engineering Technology (ET) Programs at CSULB serve society by graduating well-prepared professionals, who are provided with an excellent education in the fundamentals of Engineering Technology through a combination of theory and laboratory practice, and who are able to apply their knowledge and transform their ideas into working systems.

Career Possibilities

**Computer Option**: Hardware and software Computer Applications Engineers • Test Equipment Engineers • Manufacturing Engineers or Technical Sales Engineers in industry and organizations where a combination of hardware and software background is required

**Electronics Option**: Electronic Technician • Calibration Engineer • Construction Inspector • Computer Applications Engineer • Time Study Engineer • Facilities Planner • Field Engineer • Manufacturing Engineering • Operations Research Analyst • Sales Representative • Project Engineer • Associate Electronics Engineer • Product Design Engineer • Process Engineer • Instructor

General Requirements
All students in the BSET, BSEET, or BSCET programs must receive a minimum grade of "C" in each of the prerequisite courses before enrolling in any Engineering Technology course. In addition to any other all-university requirements regarding grade point averages for graduation, student must achieve a minimum of 2.0 average in all Engineering Technology courses.

Bachelor of Science in Computer Engineering Technology (120 units)
Administered by the Electrical Engineering Department.
Faculty Advisor - I-Hung Khoo
EE Department Office - ECS 561
Faculty Advisor's Office - ECS 517
Faculty Advisor's Telephone - (562) 985-5082

This program is available to students interested in the manufacturing of computers and the applications and operations aspects of computer hardware and software.

Emphasis is placed on specific job skills required of entry level professionals in computer industry, including systems analysis and design, data administration, networking, data communications, data acquisition, oral and written communication, and management principles.

Major Declaration
Freshmen admission to engineering majors is to a ‘pre-major’ status (i.e., Pre-Computer Engineering Technology). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student’s ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Computer Engineering Technology must also meet similar major specific requirements. To become fully admitted into the Computer Engineering Technology major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

**Core Lower Division Major Requirements:**
- **MATH 122 (Calculus I)**, PHYS 100A (General Physics)

**General Education Foundations Courses:**
- Written and Oral Communication

Degree Progress
Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

- **First-Time Freshmen**: A grade of "C" or better must be achieved in MATH 111, MATH 113, and PHYS 100A within one calendar year.
- **Transfer Students**: A grade of "C" or better must be achieved in MATH 122 and PHYS 100A and B within one calendar year.

Requirements
**Lower Division:**
Take all the following courses:
- **MAE 172 Engineering Design Graphics** (2)
  Prerequisites: None.
- **MATH 122 Calculus I** (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
- **PHYS 100A General Physics** (4)
  Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.
- **PHYS 100B General Physics** (4)
  Prerequisites: PHYS 100A.
- **ENGR 101 Introduction to Engineering Profession** (1)
  Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
- **ENGR 102 Academic Success Skills** (1)
  Prerequisite: ENGR 101 with a grade of "C" or better.
- **ENGR 203 Engineering Problem Solving & Analysis** (3)
  Prerequisite: MATH 122 all with a grade of "C" or better.
  Corequisite: ENGR 203L.
- **ENGR 203L Engr Problem Solving & Analysis Lab** (1)
  Prerequisite: MATH 122 all with a grade of "C" or better.
  Corequisite: ENGR 203.
- **ET 101 Introduction to Engineering Technology** (1)
  Prerequisites: None.
- **ET 202 Probability and Statistics for Technology** (3)
  Prerequisite: High school algebra.
  Corequisite: ET 202L.
- **ET 202L Probability & Statistics for Technology Lab** (1)
  Prerequisites: 2 yrs high school algebra, geometry, and intermediate algebra (or MATH 010) or equivalent.
- **ET 205 Computer Systems and Programming** (1)
  Corequisite: ET 205L.
- **ET 205L Computer Systems and Programming Lab** (1)
  Corequisite: ET 205.
ET 250 Circuit Analysis I (2)
Prerequisite: PHYS 100B with a grade of "C" or better.
Corequisite: ET 250L.

ET 250L Circuit Analysis I Laboratory (1)
Prerequisite: PHYS 100B with a grade of "C" or better.
Corequisite: ET 250.

ET 252 Circuit Analysis II (2)
Prerequisites: MATH 122; ET 250, ET 250L all with a grade of "C" or better.
Corequisite: ET 252L.

ET 255 Introduction to Digital Electronics (2)
Prerequisites: ET 250, ET 250L all with a grade of "C" or better.
Corequisite: ET 255L.

ET 260 Solid State Electronic I (2)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 260L.

ET 286 Intro to Object-Oriented Programming (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 286L.

ET 309 Industrial Communications and Leadership (3)
Prerequisites: ET 101 with a grade of "C" or better.

ET 311 Quality Engineering Technology (3)
Prerequisites: ET 202, ET 202L all with a grade of "C" or better.

ET 360 Control Instrumention (2)
Prerequisites: ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 360L.

ET 386 Introduction to Microprocessors (2)
Prerequisite: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386L.

ET 386L Introduction to Microprocessors Lab (1)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386.

ET 387 Robot Programming and Mechatronics (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387L.

ET 387L Robot Programming & Mechatronics Lab (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387.

ET 388 Technical Applications Using Programming Languages (2)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 388L.

ET 442 Computer Circuits (2)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442L.

ET 442L Computer Circuits Lab (1)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442.

ET 486 Data Structures (2)
Prerequisites: ET 388, ET 388L all with a grade of "C" or better.
Corequisite: ET 486L.

ET 487 Introduction to Data Communications and Networking (2)
Prerequisites: ET 286, ET 286L, ET 386, ET 386L or equivalents all with a grade of "C" or better.
Corequisite: ET 487L.

ET 488 Microcomputer Systems (2)
Prerequisites: ET 388, ET 388L all with a grade of "C" or better.
Corequisite: ET 488L.

ET 492 Computer Controlled Industrial Systems (2)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 492L.

ET 494 Applied Systems Development Project (2)
Prerequisites: ET 386, ET 386L, ET 487, ET 487L all with a grade of "C" or better.
Corequisite: ET 494L.
a grade of "C" or better.
Corequisite: ET 494.
CE 406 Project Cost-Benefit Analysis (3)
Prerequisites: GE Foundation requirements.

Take 3 units of either:
ET 312 Statistical Quality Control
Prerequisite: ET 311 all with a grade of "C" or better.
or
ET 461 Management of Manufacturing Operations.
Prerequisite: ET 410 with a grade of "C" or better.

Take at least 3 units from the following, in consultation with an advisor:
ET 409E or (ET 491, ET 491L) or (ET 497, ET 497L).

Fieldwork Requirements
Fieldwork experience is required for the BS in Computer Engineering Technology, consisting of no less than three months full-time (40 hours/week) (or equivalent part-time) of employment in an approved industry or governmental agency. The student must hold a position equivalent to a technician or higher which affords the opportunity to exercise responsibility usually given to those who have completed two years of college. The fieldwork must be completed prior to graduation, be certified and approved by the faculty of the Department.

Concurrent and/or Enrollment in Another Institution
Students who wish to take, or have already taken, coursework in a community college or another institution to meet curricular requirements must petition the ET Undergraduate Advisor for approval.

Bachelor of Science in Electronics Engineering Technology (120 units)
Administered by the Electrical Engineering Department.
Faculty Advisor - I-Hung Khoo
EE Department Office - ECS 561
Faculty Advisor's Office - ECS 517
Faculty Advisor's Telephone - (562) 985-5082

The Electronics Engineering Technology program, prepares the student for a position as a technician, in such industries as aerospace, computers, communications, biomedical, chemical, power, etc. Students are offered a wide range of training in topics such as instrumentation, controls, microprocessors, microelectronics, biomedical electronics, communications, motors and generators, robotics, computer applications, programming and interfacing. Moreover the program emphasizes written and oral communications skills as well as modern methods of industrial administration and supervision.

Major Declaration
Freshmen admission to engineering majors is to a 'pre-major' status (i.e., Pre-Electrical Engineering Technology). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student's ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Electrical Engineering Technology must also meet similar major specific requirements. To become fully admitted into the Electrical Engineering Technology major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

Core Lower Division Major Requirements:
MATH 122 (Calculus I), PHYS 100A (General Physics)

General Education Foundations Courses:
Written and Oral Communication

Degree Progress
Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 111 and 113, and PHYS 100A within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 122 and PHYS 100A and B within one calendar year.

Requirements
Lower Division:
Take all the following courses:
MAE 172 Engineering Design Graphics (2)
Prerequisites: None.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and 113.
PHYS 100A General Physics (4)
Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122.
PHYS 100B General Physics (4)
Prerequisites: PHYS 100A.
ENGR 101 Introduction to Engineering Profession (1)
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
ENGR 102 Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better.
ENGR 203 Engineering Problem Solving & Analysis (3)
Prerequisite: MATH 122 all with a grade of "C" or better.
Corequisite: ENGR 203L.
ENGR 203L Engr Problem Solving & Analysis Lab (1)
Prerequisite: MATH 122 all with a grade of "C" or better.
Corequisite: ENGR 203.
ET 101 Introduction to Engineering Technology (1)
Prerequisites: None.
ET 202 Probability and Statistics for Technology (3)
Prerequisite: High school algebra.
Corequisite: ET 202L.
ET 202L Probability & Statistics for Technology Lab (1)
Prerequisites: 2 yrs high school algebra, geometry, and intermediate algebra (or MATH 010) or equivalent.
ET 205 Computer Systems and Programming (1)
Corequisite: ET 205L.
ET 205L Computer Systems and Programming Lab (1)
Corequisite: ET 205.

ET 250 Circuit Analysis I (2)
Prerequisite: PHYS 100B with a grade of "C" or better.
Corequisite: ET 250L.

ET 250L Circuit Analysis I Laboratory (1)
Prerequisite: PHYS 100B with a grade of "C" or better.
Corequisite: ET 250.

ET 252 Circuit Analysis II (2)
Prerequisites: MATH 122; ET 250, ET 250L all with a grade of "C" or better. Corequisite: ET 252L.

ET 255 Introduction to Digital Electronics (2)
Prerequisites: ET 250, ET 250L all with a grade of "C" or better.
Corequisite: ET 255L.

ET 260 Solid State Electronic I (2)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 260L.

ET 286 Intro to Object-Oriented Programming (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 286L.

ET 286L Intro to Object-Oriented Programming Lab (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 286.

Upper Division:
Take all the following courses:

ET 309 Industrial Communications and Leadership (3)
Prerequisites: ET 101 with a grade of "C" or better.

ET 311 Quality Engineering Technology (3)
Prerequisites: ET 202, ET 202L all with a grade of "C" or better.

ET 341 Solid State Electronic II (2)
Prerequisites: ENGR 203,ENGR 203L, ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 341L.

ET 341L Solid State Electronic II Lab (1)
Prerequisites: ENGR 203, 203L, ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 341.

ET 350 Motors and Generators (2)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 350L.

ET 350L Motors and Generators Lab (1)
Prerequisite: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 350.

ET 360 Control Instrumention (2)
Prerequisites: ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 360L.

ET 360L Control Instrumention Lab (1)
Prerequisites: ET 260, ET 260L all with a grade of "C" or better.

Corequisite: ET 360.

ET 386 Introduction to Microprocessors (2)
Prerequisite: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386L.

ET 386L Introduction to Microprocessors Lab (1)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386.

ET 387 Robot Programming and Mechatronics (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387L.

ET 387L Robot Programming & Mechatronics Lab (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387.

ET 388 Technical Applications Using Programming Languages (2)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 388L.

ET 442 Computer Circuits (2)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442L.

ET 442L Computer Circuits Lab (1)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442.

ET 444 Telecommunications (3)
Prerequisites: ET 360, ET 360L all with a grade of "C" or better.

ET 447 Industrial Applications of Electronic Circuits (2)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better.
Corequisite: ET 447L.

ET 447L Industrial Appl of Electronic Circuits Lab (1)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better.
Corequisite: ET 447.

ET 460 Electronic Packaging and Design (2)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better and senior standing.
Corequisite: ET 460L.

ET 460L Electronic Packaging and Design Lab (1)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better and senior standing.
Corequisite: ET 460.

ET 488 Microcomputer Systems (2)
Prerequisites: ET 386, ET 386L all with a grade of "C" or better.
Corequisite: ET 488L.

ET 488L Microcomputer Systems Lab (1)
Prerequisites: ET 386, ET 386L all with a grade of "C" or better.
Corequisite: ET 488.

CE 406 Project Cost-Benefit Analysis (3)
Prerequisites: GE Foundation requirements.

Take 3 units of either:
ET 312 Statistical Quality Control
Prerequisite: ET 311 all with a grade of "C" or better.

or
ET 461 Management of Manufacturing Operations.  
Prerequisite: ET 410 with a grade of "C" or better.  
Take at least 3 units from the following courses, in  
consultation with an advisor: ET 409B or ET 441 or (ET  
445, ET 445L).

To meet prerequisite standards for courses in this  
program's requirements, a “C” or better is necessary in the  
following: MATH 122, PHYS 100B, ENGR 101, ENGR 203,  
ENGR 203L, ET 101, ET 102, ET 202L, ET 205, ET 205L,  
ET 250, ET 250L, ET 252, ET 252L, ET 255, ET 255L, ET  
260, ET 260L, ET 286, ET 286L, ET 311, ET 341, ET 341L,  
ET 360, ET 360L, ET 386, ET 386L.

Fieldwork Requirements  
Fieldwork experience is required for the BS in Electronics  
Engineering Technology, consisting of no less than three  
months full-time (40 hours/week) (or equivalent part-time)  
of employment in an approved industry or governmental  
agency. The student must hold a position equivalent to  
a technician or higher which affords the opportunity to  
exercise responsibility usually given to those who have  
completed two years of college.

The fieldwork must be completed prior to graduation, be  
certified and approved by the faculty of the Department.

Concurrent and/or Enrollment in Another  
Institution  
Students who wish to take, or have already taken,  
coursework in a community college or another institution  
to meet curricular requirements must petition the ET  
Undergraduate Advisor for approval.

Engineering Technology Courses (E T)

LOWER DIVISION  

101. Introduction to Engineering Technology (1)  
Survey of professional activities and environment of engineering  
technologist. Covers role of technologist in American industry,  
the history of technology and the growth and future of those  
professionals who hold the Bachelor of Science degree in  
Engineering Technology.  
(Lecture-Discussion 1 hour) Credit/No Credit grading only.

202. Probability and Statistics for Technology (3)  
Prerequisite: High school algebra. Corequisite: ET 202L.  
Statistics and probability theory, sampling, correlation, regression  
as applied to Engineering Technology.  
(Lecture-problems 3 hours) Letter grade only (A-F).

202L. Probability and Statistics for Technology  
Laboratory (1)  
Prerequisites: 2 yrs high school algebra, geometry, and  
intermediate algebra (or MATH 010) or equivalent.  
Laboratory exercises in statistics and probability theory, sampling,  
correlation, regression as applied to Engineering Technology.  
Simulation using statistical packages.  
(Laboratory 3 hours) Letter grade only (A-F).

204. Applied Mechanics-Statics (3)  
Prerequisites: MATH 122, PHYS 100A all with a grade of "C"  
or better.  
Force systems acting on structures, moments, equilibrium,  
centroids, trusses, beams, cables, frames, machines, friction,  
section properties, masses, both U.S. and S.I. units of  
measurements.  
(Lecture 2 hrs, activity 2 hrs) Letter grade only (A-F).

205. Computer Systems and Programming (1)  
Corequisite: ET 205L.  
Overview of computer systems, hardware, and software  
development. Hardware topics include central processing unit  
and memory, input/output devices, storage mechanism, and  
communication. Software topics include programming languages,  
operating systems, and systems analysis and design.  
(Lecture – discussion, exercise, 1 unit) Letter grade only (A-F).

205L. Computer Systems and Programming Lab (1)  
Corequisite: ET 205.  
Laboratory exercises in computer programming to solve problems  
in business, manufacturing, research and simulation. An object-  
oriented programming language will be used for these activities.  
(Laboratory 3 hours) Letter grade only (A-F). Same as CEM 205L

244. Machine Tools (1)  
Corequisite: ET 244L.  
Operations and use of the conventional and non-conventional  
machine tools.  
Not open for credit to students with previous machine tools credit.  
(Lecture-Discussion 1 hour) Letter grade only (A-F).

244L. Machine Tools Laboratory (1)  
Corequisite: ET 244.  
Laboratory exercises using conventional and non-conventional  
machine tools.  
Not open for credit to students with previous machine tools  
experience. (Laboratory 3 hours) Letter grade only (A-F).

250. Circuit Analysis I (2)  
Prerequisite: PHYS 100B with a grade of "C" or better.  
Corequisite: ET 250L.  
Fundamentals of DC theory, units of measurements, systems of  
units. Current, voltage, resistance, Ohm’s law, power, energy.  
Series and parallel circuits. Methods of analysis and selected  
topics. Network theorems such as superposition, Thevenin’s,  
Norton’s and Millman’s theorems.  
(Lecture-Discussion 2 hours) Letter grade only (A-F).

250L. Circuit Analysis I Laboratory (1)  
Prerequisite: PHYS 100B with a grade of "C" or better.  
Corequisite: ET 250.  
Laboratory exercises will be conducted on AC and DC circuits  
using proto boards and power supplies, multi-meters, function  
generators, oscilloscopes and frequency counters.  
(Laboratory 3 hours) Letter grade only (A-F).

252. Circuit Analysis II (2)  
Prerequisites: MATH 122, ET 250, ET 250L; all with a grade of "C"  
or better.  
Corequisite: ET 252L.  
Study of circuit analysis techniques in AC, including network  
theorems, mesh and nodal analysis, transients, time domain and  
phasors, magnetic circuits, sinusoidal and non-sinusoidal wave  
forms, resonance circuits (series and parallel), filters (low-pass,  
high-pass, passband and bandstop).  
(Lecture-Discussion 2 hours) Letter grade only (A-F).
252L. Circuit Analysis II Laboratory (1)
Prerequisites: MATH 122, ET 250, ET 250L; all with a grade of "C" or better.
Corequisite: ET 252.
Laboratory exercises will be conducted on AC circuits using protoboards and AC power supplies, function generators, oscilloscopes, and frequency counters.
(Laboratory 3 hours) Letter grade only (A-F).

255. Introduction To Digital Electronics (2)
Prerequisites: ET 250, ET 250L all with a grade of "C" or better.
Corequisite: ET 255L.
Combinational logic utilizing Boolean algebra and the binary numbering system. Includes Karnaugh maps, truth tables, coding, switching circuits, converters and logic circuit elements.
(Lecture-problems 2 hours) Letter grade only (A-F).

255L. Introduction to Digital Electronics Laboratory (1)
Prerequisites: ET 250, ET 250L all with a grade of "C" or better.
Corequisite: ET 255.
Laboratory exercises in basic logic circuits. Topics included are breadboarding, basic gates, and combinational circuits.
(Laboratory 3 hours) Letter grade only (A-F).

260. Solid-State Electronics I (2)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 260L.
Analysis and design of solid-state electronic circuits using diodes, bipolar, unijunction and field-effect devices.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

260L. Solid State Electronics I Laboratory (1)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 260.
Laboratory exercises in breadboarding and measurements of solid-state circuits utilizing all types of electronic measuring equipment.
(Laboratory 3 hours) Letter grade only (A-F).

264. Industrial Tooling (1)
Corequisite: ET 264L.
Design of tools for production. Typical tooling problems include working drawings and hardware.
(Lecture-Discussion 1 hour) Letter grade only (A-F).

264L. Industrial Tooling Laboratory (1)
Corequisite: ET 264.
Laboratory experiments in tool design in relation to mass part production.
(Laboratory 3 hours) Letter grade only (A-F).

286. Introduction to Object–Oriented Programming (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 286L.
Introduction to an object–oriented programming language (C++). Problem analysis and software development methodology. Emphasis on applications to technology.
(Lec–Discussion 2 hrs) Letter grade only (A-F).

286L. Introduction to Object–Oriented Programming Laboratory (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 286.
Introduction to an object–oriented programming language (C++). Problem analysis and software development methodology. Emphasis on applications to technology.
Letter grade only (A-F). (Laboratory 3 hours)

UPPER DIVISION

301. Engineering Materials (2)
Prerequisites: CHEM 111A with a grade of "C" or better.
Corequisite: ET 301L.
Study of physical and mechanical properties and applications of engineering materials.
Letter grade only (A-F). (Lecture–Discussion 2 hours)

301L. Engineering Materials Laboratory (1)
Prerequisites: CHEM 111A with a grade of "C" or better.
Corequisite: ET 301.
Laboratory investigation and experiments in the application of engineering materials. Field trips.
Letter grade only (A-F). (Lab 3 hrs)

304. Applied Mechanics Strength of Materials (2)
Prerequisite: ET 204 with a grade of "C" or better.
Analysis of strength and rigidity of structural members in resisting applied forces, stress, strain, shear, moment, deflections, combined stresses, connections, and moment distribution.
Letter grade only (A-F). (Lecture-Discussion 1 hour, Activity 2 hours)

307. Industrial Safety (2)
Prerequisite: Junior Standing.
Survey of industrial safety administration, engineering and management. Emphasis is placed on the role of the first line supervisor in establishing and maintaining a safe, healthful work environment for employees. Introduction to supporting computer resources used in the safety field.
Letter grade only (A-F). (Lecture–Discussion 2 hours)

309. Industrial Communications and Leadership (3)
Prerequisites: ET 101 with a grade of "C" or better.
English Composition. Principles, theories of industrial communications and management for engineering technology. Management functions of planning, organizing, motivating, leading, controlling and staffing in technical environment. Intro decision support models. Written/oral technical information; communication forms and procedures of industry, with computer applications.
(Lecture-Discussion, 3 hours) Letter grade only (A-F).

311. Quality Engineering Technology (3)
Prerequisites: ET 202, ET 202L all with a grade of "C" or better.
Junior standing. Quality engineering technology principles and practices in industry, including management concepts, inspection practices, costs of quality and testing.
(Lecture–Discussion 3 hours) Letter grade only (A-F).

312. Statistical Quality Control (3)
Prerequisite: ET 311 all with a grade of "C" or better.
Statistical process control; including use of statistical methods for analysis and improvement of product quality, control charts, linear correlation; sampling procedures, stratification, cause and effect analysis, process capability and introduction to design of experiments.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

313. Quality Assurance, Inspection Measurement and Testing (2)
Prerequisite: ET 311 with a grade of "C" or better.
Corequisite: ET 313L.
Theory and application of inspection procedures, instrument calibration, precision measurements including theory and application of non-destructive testing of materials for quality control.
Letter grade only (A-F).
313L. Quality Assurance, Inspection Measurement and Testing Laboratory (1)
Prerequisite: ET 311 with a grade of "C" or better.
Corequisite: ET 313.
Laboratory experiments: instrument calibration including standards and precision measurements including the use of non destructive test equipment for quality control.
(Laboratory 3 hours) Letter grade only (A-F)

335. Engineering Materials and Processes I (3)
Corequisite: ET 335L.
Examination of engineering materials and manufacturing processes including the study of: Phase diagrams; heat treatment; casting; metallurgy; electronic fabrication; tribology; friction, wear, lubrication; surface treatment, coating and cleaning.
(Lecture - Discussion 3 hours) Letter grade only (A-F).

335L. Engineering Materials Processes I Laboratory (1)
Corequisite: ET 335.
Laboratory exercises in engineering materials and manufacturing processes including the study of: Phase diagram; heat treatment; casting; metallurgy and electronic manufacturing processes.
(Laboratory 3 hours) Letter grade only (A-F).

341. Solid State Electronics II (2)
Prerequisites: ENGR 203, ENGR 203L, ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 341L.
Miller's Theorem, integrated circuits, feedback, operational amplifiers, Fourier series, distortion, modulation, phase-locked loops, linear and non-linear circuits, and breadboarding.
(Lecture - Discussion 2 hrs) Letter grade only (A-F).

341L. Solid State Electronics II Laboratory (1)
Prerequisites: ENGR 203, ENGR 203L, ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 341.
Laboratory exercises in design and measurement of various circuits using operational amplifiers, comparators, regulators, silicon controlled rectifiers, frequency mixers and phase-locked loops.
(Lab 3 hours) Letter grade only (A-F).

350. Motors and Generators (2)
Prerequisites: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 350L.
Study of electric rotating machinery, its theories, principles, design and applications in automation industries.
(Lecture-Problems 1 hour) Letter grade only (A-F).

350L. Motors and Generators Laboratory (1)
Prerequisite: ET 252, ET 252L all with a grade of "C" or better.
Corequisite: ET 350.
Laboratory exercises in applications and design of rotating machines. Topics covered are DC machines, synchronous machines, servomotor, step motor, and control circuits.
(Laboratory 3 hours) Letter grade only (A-F).

360. Control Instrumentation (2)
Prerequisites: ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 360L.
Application and basic design of analog and digital control instrumentation for industrial processes. Physical and electrical properties of thermal, mechanical and optical transducers with associated signal conditioning.
(Lecture-Problems 2 hours) Letter grade only (A-F).

360L. Control Instrumentation Laboratory (1)
Prerequisites: ET 260, ET 260L all with a grade of "C" or better.
Corequisite: ET 360.
Laboratory exercises in developing and measuring various control systems utilizing operational amplifiers, transducers, thermocouples, bridges, and various pressure devices.
(Laboratory 3 hours) Letter grade only (A-F).

363. Kinematics of Mechanisms (3)
Prerequisites: ET 204 with a grade of "C" or better.
Mathematical and graphical approaches to analyze the motion of mechanisms, for further machine development, through studies of displacement, velocity and acceleration of mechanical elements.
(Lecture-Discussion 2 hours, Activity 2 hours) Letter grade only (A-F).

365. Fluid Power and Control (2)
Prerequisite: ET 204 with a grade of "C" or better.
Corequisite: ET 365L.
Fundamentals and application of hydraulic, pneumatic and vacuum power as used in current manufacturing plants.
(Lecture–Discussion 2 hours) Letter grade only (A-F).

365L. Fluid Power and Control Laboratory (1)
Prerequisite: ET 204 with a grade of "C" or better.
Corequisite: ET 365.
Demonstration and operation of fluid power systems. Design and selection of components for specific applications. Computer data acquisition and analysis.
(Laboratory 3 hours) Letter grade only (A-F).

386. Introduction to Microprocessors (2)
Prerequisite: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386L.
Theory and concepts of programming, hardware configuration, and functional capabilities of microcomputer systems including peripheral devices.
(Lecture-Problems 2 hours) Letter grade only (A-F).

386L. Introduction to Microprocessors Laboratory (1)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 386.
Laboratory exercises in programming microcomputers. Topics included are number systems, microcomputer structure, mnemonic, binary code, peripheral devices operations, stand alone operations, and system operations.
(Laboratory 3 hours) Letter grade only (A-F).

387. Robot Programming and Mechatronics (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387L.
Basic concepts of robot manipulators, robot kinematics, robot programming languages. Applications of industrial robots, machine vision systems. Basic concepts of mechatronic systems: combine hardware, software, interface, and system integration to make an intelligent system. Sensors and actuators for robotics and mechatronic systems.
(Lecture-Problems 2 hours) Letter grade only (A-F).
387L. Robot Programming and Mechatronics Laboratory (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 387.
Laboratory exercises in industrial and educational robot operation and applications. Laboratory exercises on mechatronic systems. Robot systems and their computer language instructions will be used. The experiments include teach pendant programming, high level language programming, workcell applications, continuous path programming.
Letter grade only (A-F).

388. Technical Applications Using Programming Languages (2)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 388L.
Techniques for design and development of industrial programs that includes composite program design, module coupling/strength, program testing, top-down structured programming concepts and tools, object oriented programming, and memory management. Concepts are investigated and examined for use in solving complex problems.
(Lecture-problems 2 hours)

388L. Technical Applications Using Programming Languages Laboratory (1)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 388.
Techniques for design and development of industrial programs that includes composite program design, module coupling/strength, program testing, top-down structured programming concepts and tools, object oriented programming, and memory management. Concepts are investigated and examined for use in solving complex problems.
(Lab 3 hours)

390. Applied Computer-Aided Design and Manufacturing (2)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 390L.
Roll of the computers in the manufacturing process, application of CAD/CAM systems, hardware and software components for automation, part programming for manufacturing, computer controlled manufacturing equipment, simulation, programming the factory.
(Lecture - Discussion 2 hours) Letter grade only (A-F).

390L. Applied Computer-Aided Design and Manufacturing Laboratory (1)
Prerequisites: ET 205, ET 205L all with a grade of "C" or better.
Corequisite: ET 390.
Use of microcomputer based hardware and software to solve 2D and 3D modeling problems. Computer automation software packages. Also includes part programming and CAD/CAM data exchange exercises.
(Laboratory 3 hours) Letter grade only (A-F).

409. Selected Topics in Engineering Technology (1-3)
Prerequisites: Senior standing in ET, consent of instructor.
Advanced work of a technical nature within an area of specialization on an experimental or research basis.
Letter grade only (A-F). Topics announced in the Schedule of Classes.

410. Cost Engineering and Analysis (3)
Prerequisites: Economics course, Junior standing.
Introduction to the concepts of capital and operations budgets, capital acquisitions, economic evaluations of capital alternatives and factors of the time–value of money in industrial operations and construction industries.
(Lecture–Discussion 3 hours) Letter grade only (A-F).

418. Production Methods and Process Improvement (3)
Prerequisite: ET 410 with a grade of "C" or better.
Simplification and improvement of manufacturing operations through the use of production analysis tools for optimum production economy. Also included is the investigation of production automation applications for improving manufacturing process, quality and productivity.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

419. Design of Experiments (3)
Prerequisite: ET 312 with a grade of "C" or better.
Advanced statistical analysis applied to quality functions. Comparative and single factor experiments. Factorial designs and multiple regression.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

435. Engineering Materials and Processes II (3)
Prerequisites: ET 335, ET 335L all with a grade of "C" or better.
Corequisite: ET 435L.
Application of engineering materials and manufacturing processes including: rolling; forging; extrusion and drawing; sheet-metal forming; manufacturing of plastics and composites; material removal processes and rapid prototyping.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

435L. Engineering Materials and Processes II Laboratory (1)
Prerequisites: ET 335, ET 335L all with a grade of "C" or better.
Corequisite ET 435.
Continuation of ET 335L. Laboratory exercises in: welding processes; machining processes; metal forming; manufacturing of composite materials.
(Laboratory 3 hours) Letter grade only (A-F).

441. Theory of Electronic Control (3)
Prerequisites: ET 360, ET 360L all with a grade of "C" or better.
Procedures for the design, preparation, and evaluation of electronic systems that control manufacturing and production processes, simulation analysis for sensing, programming, and actuating operations.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

442. Computer Circuits (2)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442L.
Introduction to digital hardware design. Combinational/sequential logic circuits and systems and application of integrated circuits to logic controls. Programmable logic devices, Field-programmable gate array, Circuit synthesis, and analysis.
(Lecture-Problems 2 hours) Letter grade only (A-F).

442L. Computer Circuits Laboratory (1)
Prerequisites: ET 255, ET 255L all with a grade of "C" or better.
Corequisite ET 442.
Laboratory study of digital computer circuits design and implementation. Standard designing and trouble-shooting procedures will be discussed. Topics covered are multivibrator, register, counter, decoder, arithmetic circuits, and memory.
(Laboratory 3 hours) Letter grade only (A-F).
444. Telecommunications (3)
Prerequisites: ET 360, ET 360L all with a grade of "C" or better.
National Communication Network, decibels, transmission units, transmission lines, characteristic impedance, loading systems, lattice networks, PCM, Nyquist Criterion, Bessel functions, coaxial cable, fiber optics, microwave, impedance matching, and Smith chart.
(Lecture-Discussion 3 hours) Letter grade only (A-F).

445. Microelectronics (2)
Prerequisites: ET 350, ET 350L all with a grade of "C" or better.
Corequisite: ET 445L.
Design, processing and applications of monolithic and hybrid microcircuits for analog and digital systems.
(2 Hours) Letter grade only (A-F).

445L. Microelectronics Laboratory (1)
Prerequisites: ET 350, ET 350L all with a grade of "C" or better.
Corequisite: ET 445.
Laboratory exercises in the processing of thick-film and thin-film materials, ultrasonic and thermocompression wire bonding and laser resistive trimming. Practical application and equipment utilization is emphasized.
(Laboratory 3 hours) Letter grade only (A-F).

447. Industrial Applications of Electronic Circuits (2)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better.
Corequisite: ET 447L.
An in-depth study of the applications of important electronic circuit concepts in industry. Analysis of circuits and how they work in industrial applications. Techniques for troubleshooting of design circuits. Biomedical electronic circuits which have industrial applications are emphasized.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

447L. Industrial Applications of Electronic Circuits Laboratory (1)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better.
Corequisite: ET 447.
Laboratory exercises include constructing circuits which have important applications in industry. Troubleshooting methodology emphasized throughout. Assignments focus on biomedical electronic circuits which have industrial applications.
(Laboratory 3 hours) Letter grade only (A-F).

450. Electronics Project Design and Development (2)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better and senior standing.
Corequisite: ET 460L.
Integrative learning capstone course, focusing on electronics project design and development. Product planning, implementation planning, proposal and approvals, implementation, system integration, packaging and testing. Written communication, teamwork, demonstration, and oral presentation on finished product.
This capstone course is open to Electronics Technology majors only. Letter grade only (A-F). (Lecture-Discussion 2 hours)

460L. Electronics Project Design and Development Laboratory (1)
Prerequisites: ET 341, ET 341L all with a grade of "C" or better and senior standing.
Corequisite: ET 460.
Laboratory on Electronics Project Design and Development. Product planning, implementation planning, proposal and approvals, implementation, system integration, packaging and testing. Written communication, teamwork, demonstration, and oral presentation on finished product.
Letter grade only (A-F). (Laboratory 3 hours)

461. Management of Manufacturing Operations (3)
Prerequisite: ET 410 with a grade of "C" or better.
Application of analytical planning and control techniques to the resources of industry including the physical plant, equipment, personnel, inventories and supplies use in the production of products and services.
(Lecture-Discussion 3 hrs) Letter grade only (A-F).

486. Data Structures (2)
Prerequisites: ET 388, ET 388L all with a grade of "C" or better.
Corequisite: ET 486L.
Data structures and applications. Choice and implementation of appropriate data structures for applications. Treatment of arrays, lists, stacks, queues, linked lists, trees, and assorted algorithms. Introduction to search and sorting. File organization techniques.
(Laboratory 3 hours) Letter grade only (A-F).

487. Introduction to Data Communications and Networking (2)
Prerequisites: ET 286, ET 286L, ET 386, ET 386L or equivalents all with a grade of "C" or better.
Corequisite: ET 487L.
Introduction to data communications fundamentals, peer-to-peer and client/server network models. Hardware and software technology, Protocols, networks, relational database technology, and security. Example applications, tools and development environments, Groupware, middleware. A design project and class presentation is required.
(Lecture-discussion 2 hours) Letter grade only (A-F).

487L. Introduction to Data Communications and Networking Laboratory (1)
Prerequisites: ET 286, ET 286L, ET 386, ET 386L or equivalents all with a grade of "C" or better.
Corequisite: ET 487.
Laboratory and programming exercises introducing the students to data communications and Networking technology. Protocols, networks, relational database technology, and security. Applications using software/hardware tools and development environments.
(Laboratory 3 hours) Letter grade only (A-F).

488. Microcomputer Systems (2)
Prerequisites: ET 386, ET 386L all with a grade of "C" or better.
Corequisite: ET 488L.
Study of available microprocessors and microcomputer systems. Topics cover microcomputer architecture, software structure, assembly language, central processing unit, input/output, memory manipulation, and interfacing applications in Engineering Technology.
(Lecture-problems 2 hours) Letter grade only (A-F).

488L. Microcomputer Systems Laboratory (1)
Prerequisites: ET 386, ET 386L all with a grade of "C" or better.
Corequisite: ET 488.
Laboratory experience in microcomputer architecture, assembly language programming, and interfacing applications in Engineering Technology. Topics covered are central processing unit function, memory organization, and input/output operation. Available microcomputer systems will be used. Applications in Engineering Technology.
(Laboratory 3 hours) Letter grade only (A-F).
489. Computer Interfacing (2)
Prerequisites: ET 442, ET 442L, ET 488, ET 488L all with a grade of "C" or better.
Corequisite: ET 489L.
Study of theories and techniques that are used in peripheral control and interfacing. Topics covered are serial interfacing, parallel interfacing, timing, handshaking, A/D converters, buffering, and UARTs.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

489L. Computer Interfacing Laboratory (1)
Prerequisites: ET 442, ET 442L, ET 488, ET 488L all with a grade of "C" or better.
Corequisite: ET 489.
Laboratory exercises in computer interfacing applications and design. Available computer system and its assembly language instructions will be used.
(Laboratory 3 hours) Letter grade only (A-F).

491. Embedded Processors and Systems (2)
Prerequisites: ET 489, ET 489L all with a grade of "C" or better.
Corequisite: ET 491L.
Embedded microprocessors, embedded systems, development concepts, principles, and applications. Hardware/software tradeoffs, interfacing issues, memory sizing, timing, code and power optimization issues. Application requirements, platform selection, RISC vs. CISC issues, co-processors vs. ASIC's.
(Lecture-discussion 2 hours) Letter grade only (A-F).

491L. Embedded Processors and Systems Laboratory (1)
Prerequisites: ET 489, ET 489L all with a grade of "C" or better.
Corequisite: ET 491.
Laboratory exercises on embedded system development. Emphasis will be on application requirements, platform selection, interfacing, memory sizing, timing, code and power optimization. Use of development environments and evaluation boards.
(Laboratory 3 hours) Letter grade only (A-F).

492. Computer Controlled Industrial Systems (2)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 492L.
Concepts of computer-based control of industrial systems and data acquisition. Signals and measurements, noise, resolution, signal conditioning. Software and hardware for data acquisition and control.
(Lecture-discussion, 2 hours) Letter grade only (A-F).

492L. Computer Controlled Industrial Systems Laboratory (1)
Prerequisites: ET 286, ET 286L all with a grade of "C" or better.
Corequisite: ET 492.
Laboratory exercises on computer-based control of industrial systems and data acquisition. Software and hardware for data acquisition and control. Emphasis placed on object-oriented languages and creation of graphical user interfaces for data acquisition, display and control.
(Laboratory, 1 hour) Letter grade only (A-F).

494. Applied Systems Development Project (2)
Prerequisites: ET 386, ET 386L, ET 487, ET 487L all with a grade of "C" or better.
Corequisite: ET 494L.
Integrative learning capstone course, focusing on computer technology project design and development. Systems development concepts, principles, and practices. Project management techniques, interviewing, forms analysis, structured methods. Written communication, teamwork, demonstration, and oral presentation on finished product.
(Lecture-Discussion 2 hours) Letter grade only (A-F).

494L. Applied Systems Development Project Laboratory (1)
Prerequisites: ET 386, ET 386L, ET 487, ET 487L all with a grade of "C" or better.
Corequisite: ET 494.
Laboratory on Applied Systems Development Project. Systems development concepts, principles, and practices. Project management techniques, interviewing, forms analysis, structured methods. Written communication, teamwork, demonstration, and oral presentation on finished product.
(Laboratory 3 hours) Letter grade only (A-F).

497. Computer Network Technology (2)
Prerequisites: ET 487, ET 487L all with a grade of "C" or better.
Corequisite: ET 497L.
Hardware and software technology as it relates to computer networking. LAN, WAN environments and access methods, Ethernet, ATM, Bridges, routers, gateways and intelligent hubs. Networking protocols. Security, Load balancing, and the use of simulation tools in designing networks.
(Lecture-discussion 2 hours) Letter grade only (A-F).

497L. Computer Network Technology Laboratory (1)
Prerequisites: ET 487, ET 487L all with a grade of "C" or better.
Corequisite: ET 497.
Laboratory exercises using hardware and software technology related to computer networking. Internetworking laboratory, Ethernet, ATM, Bridges, routers, gateways, and intelligent hubs. Security, Load balancing, and the use of simulation tools.
(Laboratory 3 hours) Letter grade only (A-F).

498. Manufacturing Engineering Technology Capstone Project (3)
Prerequisite: Senior standing.
Group project involving analysis, design, tooling and production processes for product manufacture. Economic, market and capital requirements, manpower analysis. Written reports and oral presentations required.
(Lecture 2 hours, Activity 2 hours) Letter grade only (A-F).
ENGLISH
College of Liberal Arts

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Career Possibilities
Advertising • Entertainment • Journalism • Management
• Law • Marketing • Mass Media (film, radio, television)
• Politics • Professional Writing and Editing (creative or technical) • Public Relations • Teaching • Publishing (Some of these require additional education or experience. For more information, see www.careers.csulb.edu.)

Scholarships
The Department of English annually gives many scholarships and awards to outstanding undergraduate and graduate students. Information about these scholarships and awards is available from the Department office at the beginning of the spring semester.

Undergraduate Programs

Bachelor of Arts in English
Program planners for each option are available on the Department website or in the Department office. Students should consult with Department faculty advisors when choosing a program in English and regularly as they progress towards their degrees.

The Department of English can refer students to one of the coordinating faculty advisors. Regular office hours for all English faculty are posted near the Department office, and information sheets are available detailing which faculty members regularly advise for specific options.

ENGL 100, a general education foundation course, is not part of any English option. Some options permit or require courses from other departments; if approved by a faculty advisor, options may also include courses outside English. Because some courses meet requirements in several options, students can often change options with no significant loss of credit towards the required total; students also regularly double major in two options in English.

In addition to the degree requirements for the Bachelor of Arts in English, English majors must meet the following requirements for University graduation:
1. Each lower division course counted towards the English major must be completed with a grade of "C" or better. A course in which a grade lower than a "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite.
2. ENGL 380, required of all English majors, must be completed with a grade of "C" or better. If a grade lower than a "C" is received, ENGL 380 must be retaken and successfully completed with a grade of "C" or better prior to enrolling in any course for which it is a prerequisite.

Option in Creative Writing (120 units)
The Creative Writing option is designed for students who wish to write as well as study fiction, poetry, or creative non-fiction. Exposure to traditional and recent literature is essential for anyone seeking to master the forms and conventions of writing creatively for the literary marketplace. This option consists of 45 units, 31 of which must be taken in the upper division, including the following:

Lower Division:
Take all of the following:
- ENGL 180 Appreciation of Literature (3) Prerequisite/Corequisite: One GE Foundation course.
- ENGL 250A Survey of English Literature (4) Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
- ENGL 250B Survey of English Literature (4) Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.

Take one of the following:
- ENGL 204 Introduction to Creative Writing: Creative Nonfiction (3) Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
- ENGL 205 Introduction to Creative Writing: Fiction (3) Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
- ENGL 206 Introduction to Creative Writing: Poetry (3) Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.

Upper Division:
Take the following:
- ENGL 380 Approaches to English Studies (4) Prerequisite: ENGL 180 or equivalent.

Take one of the following:
- ENGL 404, ENGL 405, ENGL 406, ENGL 407, ENGL 499

Take three of the following classes in recent literature, literary genres, and literary criticism:
- ENGL 385, ENGL 386, ENGL 459, ENGL 466, ENGL 467A/B, ENGL 469, ENGL 474, ENGL 475, ENGL 476A/B, ENGL 477A/B, ENGL 478, ENGL 479

Take electives to make up a total of 45 units chosen from the classes listed above and/or any upper-division English courses.

Option in English Education (120 units)
The Option in English Education is designed for prospective secondary English teachers and satisfies the state-mandated requirement in subject matter competence for the Single Subject Teaching Credential. This 55-unit
option combines a 43-unit core with a specified emphasis in one of five areas. All five areas of emphasis require that students complete the 43-unit core requirements specified here and take the additional 12 units of breadth and perspective as indicated below. In order to achieve subject matter competency, English Education majors must earn grades of ‘C’ or better in all of their content area coursework. English Education emphases should not be confused with BA options or majors in English or other departments, which have significantly different requirements.

Core Requirements
Take all of the following:
ENGL 180 Appreciation of Literature (3)
Prerequisite/Corequisite: One GE Foundation course.
ENGL 310 Applied Composition (4)
Prerequisite: ENGL 100 or GE Composition (Area A1).
ENGL 320 English Grammar (4)
Prerequisite: None
ENGL 363 Shakespeare I (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 375 U.S. Ethnic Writers (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 380 Approaches to English Studies (4)
Prerequisite: ENGL 180 or equivalent.
ENGL 410 Theories of Writing and Literacy (3)
Prerequisite: ENGL 309 or ENGL 310 or consent of instructor.
ENGL 482 Literature for Adolescents (4)
Prerequisite: One college course in literature.
LING 339 Linguistics for Crosscultural Academic Development in Secondary School Settings (3)
Prerequisites: None
Take one of the following:
ENGL 250A Survey of English Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 250B Survey of English Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Take one of the following:
ENGL 270A Survey of American Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 270B Survey of American Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Take one of the following:
CWL 100, CWL 124, CWL 132, CWL 320, CWL 346, CWL 404, CWL 452/552, CLSC 101
General Education courses that meet California Commission for Teacher Credentialing Recommendations are:
Take three units from the following:
THEA 113, THEA 122, THEA 324
Take three units from the following:
COMM 130, COMM 335

Breadth and Perspective
Creative Writing Emphasis
Take six units from the following:
ENGL 404, ENGL 405, ENGL 406, ENGL 407
Take six units from the following:
ENGL 385, ENGL 386, ENGL 459, ENGL 463, ENGL 467A/B, ENGL 474, ENGL 475, ENGL 476A/B, ENGL 477A/B, ENGL 478

Language and Linguistics Emphasis
Take three units from the following:
LING 420, LING 421, LING 433
Take three units from the following:
LING 486; EDP 485
Take three units from the following:
LING 425, LING 472; ANTH 421
Take three units from the following:
ENGL 435; LING 460

Literature Emphasis
Take three units from the ENGL 450 series
Take three units from the ENGL 470 series
Take three units from the following:
ENGL 318, ENGL 385, ENGL 386, ENGL 398
Take three units from the following:
1. Any course in ENGL 440 series;
2. Any course in ENGL 450 series different from above;
3. Any course in ENGL 460 series;
4. Any course in ENGL 470 series different from above;
5. Any course in ENGL 480 series except ENGL 482 or 498.

Rhetoric and Composition Emphasis
Take all of the following:
ENGL 435 Teaching Composition (3)
Prerequisite: Consent of instructor.
ENGL 436 Theories and Practices of Reading (3)
Prerequisites: None
Take two of the following:
ENGL 300, ENGL 309, ENGL 317, ENGL 404, ENGL 405, ENGL 406, ENGL 407, ENGL 417, ENGL 418, ENGL 497; LING 460

U.S. Ethnic Literatures Emphasis
Take 12 units from the following courses
AFRS 140 Introduction to African American Literature (3)
Prerequisite/Corequisite: One GE Foundation course.
AIS 340 American Indian Literature (3)
Prerequisite: GE Foundation requirements. Same course as ENGL 340. Not open for credit to student with credit in ENGL 340.
CHLS 150 Introduction to Chicano Literary Studies (3)
Prerequisite/Corequisite: One course from GE category A1. Not open for credit to students with credit in CHLS 205.
CHLS 370 Chicano/a and Latina/o Literature (3)
Prerequisite: GE Foundation and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. Same course as ENGL 370. Not open for credit to students with credit in ENGL 370.
CWL 350 Global Literature in American Culture (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.

CWL 415 Ethnic Literature and Culture in America (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing.

ENGL 340 American Indian Literature (3)
Prerequisite: GE Foundation requirements. Same course as AIS 340. Not open for credit to students with credit in AIS 340.

ENGL 370 Chicana/o and Latina/o Literature (3)
Prerequisite: GE Foundation and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. Same course as CHLS 370. Not open for credit to students with credit in CHLS 370.

ENGL 442 Sexing Chicana Literature (3)
Prerequisites: ENGL100 or GE Composition (Area A1) and upper-division standing or consent of instructor. Same course as WGSS 442. Not open for credit to students with credit in W/ST 442 or WGSS 442.

ENGL 470 American Ethnic Literatures (3)
Prerequisite: ENGL 375 or consent of instructor.

ENGL 479 Selected Topics - Major American Writers (4)
Prerequisites: At least senior standing and 12 units of upper-division ENGL (including ENGL 380).
- B. Louise Erdrich
- J. Toni Morrison
- P. Richard Wright

ENGL 489 Selected Topics in Literatures Written in English (4)
J. Chicana/o and Latina/o Cultural Production
WGSS 442 Sexing Chicana Literature (3)
Prerequisites: ENGL100 or GE Composition (Area A1) and upper-division standing or consent of instructor. Same course as ENGL 442. Not open for credit to students with credit in W/ST 442 or ENGL 442.

Single Subject Teaching Credential in English

In addition to meeting the subject matter competence requirement for the Single Subject Teaching Credential in English, prospective English teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of professional preparation requirements, courses, and application procedures. Prospective students should consult the department's English Education Advisor early to plan their program.

Option in Literature (120 units)

The Literature option is designed for students who desire a thorough grounding in English and American literature and is particularly recommended for those planning on graduate study in English.

This option consists of 46 units, 27 of which must be taken in the upper division, including the following:

Lower Division:

Take all of the following:

ENGL 180 Appreciation of Literature (3)
Prerequisite/Corequisite: One GE Foundation course.
ENGL 250A Survey of English Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 250B Survey of English Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 270A Survey of American Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 270B Survey of American Literature (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.

Upper Division:

Take all of the following:

ENGL 363 Shakespeare I (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
ENGL 380 Approaches to English Studies (4)
Prerequisite: ENGL 180 or equivalent.

Take either two from the ENGL 450 series or one from the ENGL 450 series and one from the ENGL 460 series (excluding ENGL 469); one of these two courses must be in English literature before 1900

Take one course from 470 series (excluding ENGL 479)
Take one senior seminar (ENGL 469, ENGL 479, ENGL 489)

Take electives to make up a total of 46 units

Option in Rhetoric and Composition (120 units)

The Rhetoric and Composition option is designed for students who desire to write for multiple readers and to analyze and interpret texts. This option prepares students for teaching on virtually all levels, for graduate study in English, and for professions that require intensive writing and communication skills.

This option consists of 45 units, 34 of which must be upper division, including the following:

Lower Division:

Take the following:

ENGL 180 Appreciation of Literature (or equivalent) (3)
Prerequisite/Corequisite: One GE Foundation course.

Take two of the following:

ENGL 250A, ENGL 250B, ENGL 270A, ENGL 270B

Upper Division:

Take the following:

ENGL 380 Approaches to English Studies (4)
Prerequisite: ENGL 180 or equivalent.

Take two of the following:

ENGL 300, ENGL 317, ENGL 410, ENGL 435

Take seven of the following:

ENGL 310, ENGL 320, ENGL 337, ENGL 363, ENGL 404, ENGL 411, ENGL 416, ENGL 417, ENGL 418, ENGL 419, ENGL 423, ENGL 426, ENGL 436, ENGL 488, ENGL 497

Take upper-division English course electives to reach a total of 45 units.

Note: Students are strongly encouraged to take ENGL 102 or an
English-department equivalent at a transfer school for this option.

**Option with Special Emphasis (120 units)**

Some students wishing to major in English have special interests or career objectives so different from those for which the other options are designed that another pattern of courses would better serve their personal educational needs. For those students, the Special Emphasis option offers an opportunity to pursue individually designed 41-unit programs of study. Student programs may center on technical writing, for example, or other writing goals; they may focus on American or English literature or literature in a particular genre, a particular historical period, or a particular theme.

A Special Emphasis program may include courses outside the Department of English closely related to a student’s focus in English studies. At least 21 units must be earned in the Department of English at CSULB and at least 21 units of the program must be upper division.

Students wishing to take the Special Emphasis option must meet with the Department chair. Students must complete at least 15 upper-division units applicable to their Special Emphasis program after it has been officially approved. Specific course requirements and limitations follow:

Take all of the following:

- ENGL 180 Appreciation of Literature (3)
  Prerequisite/Corequisite: One GE Foundation course.

- ENGL 380 Approaches to English Studies (4)
  Prerequisite: ENGL 180 or equivalent.

Electives in English and related fields are needed to make up a total of 41 units. These electives may not include ENGL 100.

**Minor in English**

**Creative Writing**

Requires a minimum of 20 units including the following:

Take the following:

- ENGL 180 Appreciation of Literature (3) (or equivalent)
  Prerequisite/Corequisite: One GE Foundation course.

Take three units from the following:

- ENGL 204, ENGL 205, ENGL 206
- ENGL 404, ENGL 405, ENGL 406
- ENGL 385, ENGL 386
- ENGL 359, ENGL 404, ENGL 405, ENGL 406, ENGL 407, ENGL 459, ENGL 466, ENGL 467A/B, ENGL 474, ENGL 475, ENGL 476A/B, ENGL 477A/B, ENGL 499
  (Note: ENGL 404, ENGL 405, ENGL 406 and ENGL 407 may be repeated for credit to a maximum of six units by consent of instructor).

**Literature**

Requires a minimum of 20 units including the following:

Take the following:

- ENGL 180 Appreciation of Literature (3) (or equivalent)
  Prerequisite/Corequisite: One GE Foundation course.

Take eight units from the following:

- ENGL 250A, ENGL 250B, ENGL 270A, ENGL 270B

Take nine units from upper-division literature classes in the English department (including at least one class at the 400 level).

**Rhetoric and Composition**

Requires a minimum of 19-20 units including the following:

Take all of the following:

- ENGL 300 Advanced Composition (3)
  Prerequisite: GE Foundation requirements and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

- ENGL 410 Theories of Writing and Literacy
  Prerequisite: ENGL 309 OR ENGL 310 or consent of instructor.

- ENGL 411 Research Methods in Rhetoric and Composition (4)

- ENGL 488 Selected Topics in Rhetoric and Writing Studies (3)
  Prerequisite: ENGL 100 or GE Composition (Area A1)
  Recommended, choose two of the following:

- ENGL 310, ENGL 317, ENGL 380, ENGL 435, ENGL 436, ENGL 497

**Special Emphasis**

Requires a minimum of 21 units in a program developed, approved, and supervised in the same manner as the Special Emphasis Option.

Take the following:

- ENGL 180 Appreciation of Literature (3) (or equivalent)
  Prerequisite/Corequisite: One GE Foundation course.

The rest of the program constructed in consultation with a faculty advisor.

At least nine upper-division units must be taken after program approval, and at least 11 units must be earned in the Department of English at CSULB.

**Graduate Certificate in Teaching English to Speakers of Other Languages**

This certificate is conducted by the Linguistics Department faculty. For requirements, please refer to the Linguistics section of this catalog.

**Certificate in Professional Writing**

The Department of English offers a Certificate in Professional Writing to students interested in careers in writing and editing. Application forms and advising materials may be obtained from the department office.

This certificate program is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

**Prerequisites**

1. Admission to a degree program at CSULB or possession of a baccalaureate or graduate degree from an accredited college or university AND admission as a post-baccalaureate student at CSULB.
2. Upper division or post-baccalaureate standing at CSULB with a grade point average of at least 2.75 overall.
Master of Arts in English

The Department of English offers graduate study leading to the Master of Arts degree. The candidate must satisfy the general requirements stated in this catalog as well as the specific departmental requirements stated here and, more fully, in the Master of Arts brochure issued by the department (copies of which are available upon request). Application and deadline information is available at the University Graduate Studies website (http://web.csulb.edu/divisions/aa/grad/).

An applicant may be admitted to the MA program in English only after satisfying University requirements for admission and the following prerequisites to this degree:

1. A Bachelor of Arts degree in English from an accredited institution or a bachelor's degree from an accredited institution with at least 21 units of upper-division English courses that offer a broad coverage of English and American literature.

Any deficiencies will be determined by the Department Graduate Advisor in consultation with the Graduate Studies Committee. Courses used to remove course or unit deficiencies may not be included in the MA program.

2. A 3.3 GPA in upper-division English courses.

3. Applicants who do not have the required minimum GPA may take additional coursework to raise their GPA to the minimum. Applicants whose upper-division English GPA is at least 3.0 may be admitted to the MA program if they take the GRE General Test and achieve a minimum score of 580 in Verbal Reasoning and 5.0 in Analytical Writing. On August 1, 2011, the GRE revised the test and scoring system. For tests taken after this date, these applicants will need a minimum score of 158 in Verbal Reasoning and 5.0 in Analytical Writing.

4. All applicants, regardless of citizenship, whose native language is not English and whose preparatory education was principally in a language other than English must receive a minimum score of 600 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Internet-Based Test of English as a Foreign Language must present a score of 250 or above; applicants taking the Internet-Based Test of English as a Foreign Language must present a score of 100 or above).

After Admission to Program

Students must be formally admitted to the program before they can enroll in ENGL 696, which is prerequisite or corequisite to all other 600-level courses.

Advancement to Candidacy

1. The student must satisfy the general requirements of the University, including fulfilling the Graduation Writing Assessment Requirement (GWAR).

2. The student’s MA program must be approved by a faculty graduate advisor, the Department Graduate Advisor, and the Department Chair before submission to the Associate Dean of Liberal Arts.

3. Advancement is possible after completion of six units toward the MA degree. Students must be advanced to candidacy at least one semester before they intend to graduate, before the deadline to file for graduation that semester. If a student is writing a thesis, he or she must
be advanced before any thesis units are taken.

**Requirements**

1. A minimum of 30 units of graduate and approved upper-division courses (see MA Handbook and website for list of approved undergraduate courses) including 24 units in English. Complete at least seventy percent (70%) of the minimum units required for the program of study in courses at the 500 and 600 levels, including double-numbered courses (400/500). At least fifty percent (50%) of the units required for the degree shall be in courses organized primarily for graduate students;

2. A minimum of 20 units in the 600 series in English at this University, including ENGL 696, which is to be completed before or concurrently with other 600-series courses (a student will not be granted credit for 600-series courses unless admitted to the MA program);

3. A minimum of one seminar in the 600 series in English literature before 1800;

4. A foreign language requirement, which may be fulfilled in one of the following ways:
   A. completing college course work in a foreign language equivalent to sophomore proficiency (normally 201B at this University) with "C" or better;
   B. completing college course work in a foreign language equivalent to freshman proficiency (normally 101B at this University) with "C" or better and completing either ENGL 550 or ENGL 551 with "B" or better;
   C. passing a special examination or demonstrating native proficiency in any foreign language accepted by the Graduate Studies Committee;

5. Successful completion of a final comprehensive examination in a specified specialty area. (Students who fail the examination may retake it once only.) A thesis may be written in lieu of the examination. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity;)

6. Appropriate filing for Graduation Check and for Diploma.

**Master of Fine Arts in Creative Writing**

The Master of Fine Arts degree in Creative Writing is the recognized terminal degree which offers the minimum professional training deemed necessary by the major schools in the United States for university and college teaching and for positions in the publishing industry. It is also the degree most frequently held by professional writers.

**Criteria for Admission to the Program**

1. Students applying for admission to the MFA degree program generally have completed a bachelor's or master's degree in English from an accredited institution with a 3.2 GPA in upper-division English courses, meet university admission requirements, and submit evidence of creative ability in fiction or poetry (10 pages poetry, 20-30 pages fiction). For each annual cycle, applications are due by January 15, when review will begin.

2. When an undergraduate degree has been completed in a program having different requirements from those of CSULB or in some field other than English, additional preparation may be required before the student can be considered for classified status in the degree program.

3. At the time of the student's conditional classification into the program, an examining diagnostic committee consisting of at least two instructors in the student's field of specialization and at least one other faculty member must approve and evaluate the student's work no later than the end of his/her first full year in residence and judge whether the student should continue in the program.

4. In order to obtain a full classified status, the student must obtain satisfactory evaluation from his/her committee at the end of the first full year in residence. Both the student's coursework and the student's portfolio will be evaluated.

The appeals procedure for unfavorable portfolio evaluation is as follows:

If the student feels that his/her work has been unfairly evaluated, that student has recourse any time to discuss the matter informally with the MFA Coordinator in order to resolve the issue. If the issue cannot be resolved on that basis, the following procedure shall be followed:

A. The student shall present a written appeal to the MFA Coordinator.

B. Within ten (10) working days of receipt of a written appeal by a student, the MFA Coordinator shall refer the appeal to an ad hoc committee consisting of three tenured creative writing faculty not involved with the issue.

C. The committee shall meet in formal sessions holding hearings at separate times for the student and for the faculty involved to gather information and evidence relevant to the issue.

D. After deliberation, the committee shall present its findings to the MFA Coordinator within thirty (30) working days from the origination of the committee. (Working days do not include periods of time between semesters.)

E. The MFA Coordinator shall inform the concerned student in writing of the committee's decision.

5. Advancement to candidacy

   A. Attain fully classified status.
   B. Remove all undergraduate deficiencies as determined by the graduate advisor, the department chair, and the dean of graduate studies.
   C. Fulfill the GWAR.
   D. Submit a program of courses for approval by the student's faculty advisor.

6. Up to 24 units of credit from a Master of Arts program in Creative Writing may be acceptable after review and approval by the faculty evaluation committee.

7. Requirements for the Master of Fine Arts in Creative Writing. The MFA degree is a 48-unit degree normally requiring full-time residency. Course requirements are arranged according to the following structure.

   A. Core (32 units chosen in consultation with faculty advisor):

   - Take one of the following pairs in Year 1:
     - ENGL 505A Seminar in Fiction Writing (4)  
     - Prerequisite: Admission to the MFA in Creative Writing.
     - ENGL 505B Seminar in Fiction Writing (4)  
     - Prerequisites: Admission to the MFA in Creative Writing and ENGL 505A.
or
ENGL 506A Seminar in Poetry Writing (4)
Prerequisite: Admission to the MFA in Creative Writing.
ENGL 506B Seminar in Poetry Writing (4)
Prerequisites: Admission to the MFA in Creative Writing and ENGL 506A.

Take one of the following pairs in Year 2:
ENGL 605A Advanced Seminar in Fiction Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, and ENGL 505B.
ENGL 605B Advanced Seminar in Fiction Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, ENGL 505B, and ENGL 605A.

or
ENGL 606A Advanced Seminar in Poetry Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, and ENGL 506B.
ENGL 606B Advanced Seminar in Poetry Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, ENGL 506B, and ENGL 606A.

Take in both fall and spring of Year 2:
ENGL 590 Directed Reading (3)
Prerequisites: None.

Take both:
ENGL 696 Seminar in Theory, Criticism, and Research (4)
Prerequisites: None
ENGL 698 Thesis (6)
Prerequisites: ENGL 696 and consent of instructor.

Electives: (16 units chosen in consultation with a faculty advisor) from 400-, 500- and 600-level English Department courses.

A student wishing to take a course in another department must obtain advance written approval from an MFA advisor. A student may not enroll in any 500-level course if he or she earned credit for the class at the 400-level as an undergraduate at CSULB. Up to six units total of 400-level coursework may be taken to fulfill the electives requirement, subject to the following restrictions:
1. A student may not enroll in any 400-level Creative Writing course if he or she earned credit for that class as an undergraduate at CSULB.
2. A student may not enroll in any 400-level Creative Writing course that is in his or her own degree focus.
3. A student wishing to take any 400-level course must obtain advance written approval from an MFA advisor.

B. Both fiction and poetry specializations share a common core of courses which offer study in literary history, theory, and research. The remainder of the courses offer students the opportunity to develop additional skills in their particular area of related interest. The program culminates in a major creative project (novel, short story collection, or poetry collection) of publishable quality.

Single Subject Teaching Credential in English

For information, refer to the undergraduate Option in English Education.

Courses (ESW) - Early Start Writing

1. Expectations: Writing in the University (1)
Prerequisite: EPT score of 147 or below.
A one-unit course in which students will improve their reading comprehension, critical thinking and written composition skills. Does not count toward graduation, but does count toward financial aid. Credit/No credit grading.

1V. Expectations: Writing in the University (1)
Prerequisite: EPT score of 137 or below.
A one-unit course in which visiting students will improve their reading comprehension, critical thinking and written composition skills. Does not count toward graduation, but does count toward financial aid. Credit/No credit grading.

100S. Composition I (3)
Prerequisites: Students who score a total of 142-146 on the English Placement Test and who have not taken equivalent courses in another department are eligible for enrollment in this course. Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading, as well as to developing stronger reading comprehension for specific writing tasks.
Not open to non-CSULB students. Not open for credit to students with credit in ENGL 100S, ASAM 100S, AFRS 100S, CHLS 104S. ESW 100S counts for general elective credit toward graduation. Credit/No credit grading only.

Courses (ENGL)

To encourage clarity and uniformity in the reporting of scholarship, students in all English courses are expected to learn and use standard methods of citation and documentation. For literary and critical study, the standard format is the documentation system prescribed by the Modern Language Association, detailed in the MLA Handbook and simplified in many beginning textbooks in literary study. At the instructor’s discretion, other methods may be used in courses in composition, technical communication, literacy studies, and other classes required for the English Education option.

LOWER DIVISION
Please check the section on “Application Procedures and Admissions Requirements” of this catalog for CSU system-wide writing proficiency requirements.

100S. Composition I (3)
Prerequisites: Students who score 146 or below on the English Placement Test and who have not taken equivalent courses in another department are eligible for enrollment in this course. Composition I does not count toward meeting the major requirements. It does count toward graduation and will be included in the overall GPA. Must have a “C” or better to earn credit in GE.
Basic course in writing, offering intensive practice in every stage of writing process from generating ideas to final proofreading, as well as to the developing of stronger reading comprehension for specific writing tasks.
Same course as ASAM 100S, AFRS 100S, CHLS 104S. Not open for credit to students with credit in: AFRS 1, ASAM 1, ENGL 1, CHLS 1, AFRS 100S, ASAM 100S, CHLS 104S, ESW 100S.
100. Composition II (3)
Prerequisites: Score of 147 or above on the English Placement Test, “C” or better in ENGL 100S, AFRS 100S, ASAM 100S, CHLS 104S, ALI 150; or consent of instructor.
Expository writing course designed for first-year students. Satisfies one of the writing requirements for general education at CSULB. Emphasizes academic writing, focusing primarily on analytical reading and thesis-driven writing.
Same course as AFRS 100, ASAM 100, CHLS 104. Not open for credit to students with credit in: AFRS 100, ASAM 100, CHLS 104.

102. Critical Reading and Writing (3)
Prerequisite: ENGL 100 or GE Composition (Area A1) with a minimum grade of “C.”
Analytical reading and persuasive writing, with emphasis on logic and argumentation.
Not open for credit to students with credit in ENGL 200.

180. Appreciation of Literature (3)
Prerequisite/Corequisite: One GE Foundation course.
Study of works representing the scope and variety of themes and types of imaginative literature. Introduction to the major literary genres and to methods of critical expository writing.
Not open for credit to students with credit in ENGL 184.

204. Introduction to Creative Writing: Creative Nonfiction (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Practice in the basic elements of creative nonfiction, including description, dialog, and framing.

205. Introduction to Creative Writing: Fiction (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Practice in the basic elements of fiction writing: character sketch, plot development, description, and dialog.

206. Introduction to Creative Writing: Poetry (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Theory and techniques of poetry. Practice in creative work, with group discussions and individual conferences.

250A,B. Survey of English Literature (4,4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Representative selections from English writers to and since the late eighteenth century.

270A,B. Survey of American Literature (4,4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Representative selections from American writers to and since about 1865.

283. Science Fiction (3)
The literature of science fiction, from Frankenstein and H.G. Wells to the present, emphasizing the relevance of science and technology to literary fantasy.

UPPER DIVISION
ENGL 100 or GE Composition (Area A1) is a prerequisite for all upper-division courses.
An “I” next to a course number means the course is acceptable for Interdisciplinary Credit in General Education.

300. Advanced Composition (3)
Prerequisites: GE Foundation requirements and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Study and apply rhetorical strategies of invention, arrangement, and style to write expository, analytic, and argumentative prose; examine how evidence is produced and presented in genres from different academic disciplines, from civic and workplace literacy, and from popular media.

301A. English Proficiency (3)
Prerequisites: ENGL 100 or GE Composition (Area A1).
Intermediate course in English usage with emphasis on building proficiency in oral and written language.
Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English.

301B. English Proficiency (3)
Prerequisites: ENGL 100 or GE Composition (Area A1).
Advanced course in English usage with emphasis on building proficiency in written language.
May be repeated to a maximum of 6 units. Not applicable to credit in any degree program of the Department of English. Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be used to satisfy the GWAR.

309. Applied Composition: Explorations in Children's Writing (4)
Advanced composition course incorporating the study of the evolution of written discourse and emergence of rhetorical structures in the writing of pre-adolescents.
Includes a 40-hour tutorial/research component. Course fee may be required. (Discussion/Laboratory)

310. Applied Composition (4)
Prerequisite: ENGL 100 or GE Composition (Area A1).
Intensive practice in writing, correcting, and evaluating compositions, with specific reference to contemporary classroom situations and problems.
Includes a 30-hour tutorial component in which students work as composition tutors. Required for all English Education majors.

317. Technical Communication (3)
Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100 or GE Composition (Area A1), ENGL 102, ENGL 300, or equivalents.
Expository writing on technical subjects dealt with in industry, science, government, and the academy. Introduction to long and short forms including reports, proposals, manuals, and journal articles, emphasizing the longer formal paper or technical report.

318. Theory of Fiction and Film (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examination of narrative methods and conventions of American and British fiction and film; consideration of relationships between artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film.
Same course as FEA 318. Not open for credit to students with credit in FEA 318.

320. English Grammar (4)
Advanced study in the principles of English grammar.
337. Technology in the English Classroom (3)
Focuses on issues in use of computer-based technologies in society; basic components and operations of computer-based technology; computer applications/programs and video tape/film for teaching problem-solving, critical thinking, writing, and literature. Meets Title 5 computer-education requirements for the Single Subject, Clear Teaching Credential in English and the Multiple Subject, Clear Teaching Credential with English Concentration.

340. American Indian Literature (3)
Prerequisite: GE Foundation requirements.
Analysis of the written and oral literacy traditions developed by American Indians. Range of works studied: oral history, tales, myths, song, prayer, poetry, short story, and novel.
Same course as AIS 340. Not open for credit to students with credit in AIS 340.

359. Postcolonial Literature (3)
Prerequisite: Upper-division standing.
Survey of English-language writers from former colonies of Great Britain who have made major contributions in all literary genres.

363. Shakespeare I (4)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Principal plays of Shakespeare.

370. Chicana/o and Latina/o Literature (3)
Prerequisite: GE Foundation and upper-division standing.
Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Comparative study of literature and culture by Chicanas/os and Latinas/os within a range of historical, social, and political contexts. Focus on narrative, poetry, film, and the visual and performing arts.
Letter grade only (A-F). Same course as CHLS 370. Not open for credit to students with credit in CHLS 370.

372. Comedy in the United States (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of the history of American comedy from beginnings to present. Focuses on literature, but also on American traditions of humor on stage, in film, in song, and in signs. Explores theories of comedy.

375. U.S. Ethnic Writers (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Description: Survey of U.S. writers of various non-European ethnic backgrounds who have made major contributions in all literary genres.

380. Approaches to English Studies (4)
Prerequisite: ENGL 180 or equivalent.
Advanced course in English Studies covering research methods; approaches to literary, rhetorical, and pedagogical topics; critical and literary terminology; genre; and advanced skills in writing and analysis.
Note: English majors must consult with their advisors because this course should be taken by the first semester of the junior year.

382. Women and Literature (3)
Prerequisite: GE Foundation requirements.
Survey of literature by women authors writing in English across a range of historical periods; examination of works in various genres that present the complexity of women’s lives and the challenges of female authorship; exploration of feminist critical approaches.
Same course as WGSS 382. Not open for credit to students with credit in W/ST 382 or WGSS 382.

384. Principles of Literary Study (3)
Prerequisite: ENGL 180.
Fundamental issues of literary study such as literary history; literary forms; themes and conventions; major critical approaches. Intense written practice in literary analysis.

385. The Short Story (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Short story as a literary genre, with emphasis on analysis of individual stories.

386. Poetry (3)
Prerequisites: ENGL 100 or GE Composition (Area A1); GE Foundation requirements.
Poetry as a literary genre, with emphasis on analysis of individual poems.

387. Comics and Graphic Narratives (3)
Prerequisite: G.E. Foundation and upper-division status.
Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
The study of comics and graphic narratives as an artistic medium, with emphasis on analysis of individual works.
Letter grade only (A-F).

398. Modern Drama (3)
Continental, English, and American drama from Ibsen to the present.

404. Creative Writing: Creative Nonfiction (3)
Prerequisite: ENGL 204 or consent of instructor.
Writing creative nonfiction, with a detailed study of published models and with an emphasis on the creative process.
May be repeated to a maximum of 6 units.

405. Creative Writing: Short Story (3)
Prerequisite: ENGL 205 or consent of instructor.
Writing short stories, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.

406. Creative Writing: Poetry (3)
Prerequisite: ENGL 206 or consent of instructor.
Writing poetry, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.

407. Creative Writing: Novel (3)
Prerequisite: Consent of instructor.
Writing long fiction, with a detailed study of published models and with emphasis on the creative process.
May be repeated to a maximum of 6 units.
410./510. Theories of Writing and Literacy (3)
Prerequisite: ENGL 309 or ENGL 310 or consent of instructor.
Focuses on several cross-disciplinary theories of producing written discourse. Studies how writing is learned, taught, viewed by the public, and used in social and academic interchange.

411./511. Research Methods in Rhetoric and Composition (4)
Introduction to interdisciplinary research methods in Rhetoric and Composition. Focuses on methods that have been motivating research since 1985, including archival, case study, ethnographic, historiographic, and teacher research. Intensive practice in conducting and writing research for interdisciplinary and/or public audiences.

416. Technical Editing (4)
Prerequisite: GE Foundation requirements.
Introduction to editing of written technical and business communication formats such as manuals, brochures, booklets, and newsletters. Teaches competence in the principles of sentence-level clarity and style, of factual accuracy, and of document design and production in professional settings.

417. Proposal Writing (3)
Prerequisite: GE Foundation requirements.
Writing of proposals in their various forms as letters, memos, grant applications.

418. Manual Writing (3)
Prerequisite: GE Foundation requirements.
Writing of original manuals of various types in technical and professional fields. Company publications will be studied as models.

419. Writing in Science, Social Science, and Technology (3)
Prerequisite: GE Foundation requirements.
Intensive practice in writing on topics in science and literature. Contemporary examples will be studied as models.

423./523. Semantics (3)
Study of meaning in language.
Same course as LING 423. Not open for credit to students with credit in LING 423.

426./526. History of the English Language (3)
Development of the English language from its beginnings to the present day.
Same course as LING 426. Not open for credit to students with credit in LING 426.

435. Teaching Composition (3)
Prerequisite: Consent of instructor.
Intensive examination and study of composition teaching practices, research and evaluation in public schools, including community colleges.

436. Theories and Practices of Reading (3)
Intensive investigation of theories and practices of reading with attention to how experienced and inexperienced readers construct texts.

442. Sexing Chicana Literature (3)
Prerequisites: ENGL100 or GE Composition (Area A1) and upper-division standing or consent of instructor.
Analyzes how Chicana authors explore race, class, and gender. Focuses on use of sexuality, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes include desire, identity, empowerment through “traditional” roles, and violence and the body.
Same course as WGSS 442. Not open for credit to students with credit in W/ST 442 or WGSS 442.

444. Literature and Environment (3)
Prerequisites: GE Foundation, one or more Explorations courses, and upper-division standing.
Literature that focuses on the relationship between humans and the environment. Emphasis on how environmental texts represent nature, raise awareness of ecological issues, and encourage social change. Service learning requirement connects environmental literature with activism and community involvement.

451./554. Medieval Literature of the British Isles (3)
Representative selections of Old and Middle English prose and poetry read for the most part in modern English, including Beowulf, the romance, medieval drama, Chaucer, and the ballad.

452./552. Literature of the Renaissance (1500-1603) (3)
Prose and poetry of Marlowe, Sidney, Raleigh, Spenser, and other predecessors and contemporaries of Shakespeare, noting the influence of Humanism and the emergence of literary identity.

453./553. Literature of the Late Renaissance (1603-1660) (3)
Poetry and prose (chiefly non-dramatic) of Milton, Bacon, Jonson, Donne and the ‘Metaphysicals’ and their contemporaries.

455./555. English Literature of the Enlightenment (1660-1798) (3)
Prose and poetry (chiefly non-dramatic) of Swift, Dryden, Pope, Johnson, Boswell, and their contemporaries, with emphasis on major satires such as Gulliver’s Travels and The Rape of the Lock.

456./556. English Literature of the Romantic Period (1798-1832) (3)
Poetry and prose (chiefly non-dramatic) of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries, emphasizing the modern Romantic spirit, theories of literary art, and the concept of the self.

458./558. English Poetry and Prose of the Victorian Age (1832-1900) (3)
Poetry and prose of Tennyson, Browning, Arnold, Carlyle, Mill, and others, emphasizing literary, social, and political issues, and religious controversies.

459./559. English Literature of the Twentieth Century (1900-Present) (3)
Prose and poetry of Shaw, Conrad, Yeats, Lawrence, Joyce, Woolf, and others, emphasizing artistic experimentation and the development of modern value systems.

462./562. Chaucer (3)
Works of Geoffrey Chaucer in Middle English.

463. Shakespeare II (3)
Prerequisite: ENGL 363.
Advanced study of some of the plays of Shakespeare.

466./566. Irish Literature in English (3)
Major Irish authors from the Celtic Revival to the present. The literature will be placed in its historical and political contexts, paying particular attention to the relationship between politics and literature, the status of women, and questions of national identity.

467A.-/567A.- The English Novel (3.3)
History and development of long prose fiction in the British Isles to and since 1832.

468./568. English Drama (3)
Readings from the history of English drama, excluding Shakespeare, including Marlowe, Jonson, and Restoration comedy.
469. Selected Topics - Major English Writers (4)
Prerequisites: At least senior standing and 12 units of upper-division ENGL (including ENGL 380).
Intensive study of one to three major English authors.
May be repeated to a maximum of 8 units with different authors, but no more than 4 units may be used to satisfy requirements for English majors. Topics announced in the Schedule of Classes.
A. Jane Austen
B. Samuel Beckett
C. Aphra Behn
D. The Brontës
E. Samuel Taylor Coleridge
F. Charles Dickens
G. John Donne
H. Durrell and Fowels
I. George Eliot
J. Thomas Stearns Eliot
K. Edward Morgan Forster
M. Thomas Hardy
N. James Joyce
O. David Herbert Lawrence
P. John Milton
Q. George Bernard Shaw
R. Edmund Spenser
S. John Ronald Reuel Tolkien
T. Rebecca West
U. Oscar Wilde
V. Virginia Woolf
W. William Wordsworth
X. William Butler Yeats
Y. Boswell and Johnson
Z. Marlowe, Marvell, and Milton

470. American Ethnic Literatures (3)
Prerequisite: ENGL 375 or consent of instructor.
Advanced course in the examination of issues in the field of American ethnic writing.

472./572. American Literature: 1820-1865 (3)
Major authors and works, along with newly recovered texts, from the period that is often called the "American Renaissance."

473./573. American Literature: 1865-1918 (3)
Developments in poetry, the novel, the short story, and non-fictional prose in the United States between the Civil War and World War I.

474./574. Twentieth-Century American Literature (3)
American literature from about 1914 to the present.

475./575. The American Short Story (3)
History and development of the short story and its criticism in the United States.

476A./576A,B. American Poetry (3,3)
History and development of poetry and its criticism in the United States to and since 1945.

477A./577A,B. The American Novel (3,3)
History and development of the novel and its criticism in the United States to and since the 1920s.

478./578. American Drama (3)
History and development of drama and its criticism in the United States.

479. Selected Topics - Major American Writers (4)
Prerequisites: At least senior standing and 12 units of upper-division ENGL (including ENGL 380).
Intensive study of one to three major American authors.
May be repeated to a maximum of 8 units with different authors, but no more than 4 units may be used to satisfy requirements for English majors. Topics announced in the Schedule of Classes.
A. Emily Dickenson
B. Louise Erdrich
C. John Fante
D. William Faulkner
E. Nathaniel Hawthorne
F. Henry James
G. Nathaniel Hawthorne and Herman Melville
H. Bobbie Ann Mason
I. Herman Melville
J. Toni Morrison
K. Edgar Allan Poe
L. Henry David Thoreau
M. Edith Wharton
O. William Carlos Williams
P. Richard Wright
Q. Charles Brockden Brown and Thomas Jefferson
R. Robinson Jeffers

481. Children’s Literature (3)
Survey of literature suitable for children.

482. Literature for Adolescents (4)
Prerequisite: One college course in literature.
Survey of literature suitable for adolescents. Includes a 20-hour field experience in which students work with local secondary school students as reading mentors.
Required for all English Education majors.

488. Selected Topics in Rhetoric and Writing Studies (3)
Prerequisite: ENGL 100 or GE Composition (Area A1).
Intensive study of a special topic in the field of rhetoric, composition, and writing studies.
May be repeated to a maximum of 12 units with different topics in the same semester, but no more than 6 units may be applied to the English major. Topics announced in the Schedule of Classes.
A. Advanced Argumentation
B. Multimedia Composition
C. (Post) Modern Persuasion
D. Real World Writing
E. Dimensions of Writing Assessment

489. Selected Topics in Literatures Written in English (4)
Intensive study of a major topic in literatures written in English.
May be repeated to a maximum of 8 units with different topics in different semesters, but no more than 4 units may be used to satisfy requirements for English majors. Topics announced in the Schedule of Classes.
A. Art and Literature of the Romantic Period
B. The Beats
C. Early Modern Women
D. Literary Bloomsbury
E. Radical Protest Literatures of the United States
F. Literature of Los Angeles
G. Metafiction
H. Reason, Revolution, Romanticism
J. Chicana/o and Latina/o Cultural Production
491. Applied Technical Writing (1-3)  
Prerequisite: Admission to Certificate Program in Technical and Professional Communication.  
Writing and editing technical reports and papers. Independent production of a report in a technical or scientific area under faculty supervision.  
May be repeated to a maximum of 4 units.

492A-B. Internship Technical - Professional Writing and Editing (1-3)  
Prerequisite: Admission to Certificate Program in Technical and Professional Communication.  
At least 90 hours writing and editing with cooperating agencies and companies on- and off-campus under direction and with evaluation of faculty in consultation with supervisors of the participating agency or company.  
May be repeated to a maximum of 4 units.

497. Directed Studies in Composition (3)  
Prerequisite: One upper-division writing course in English or consent of instructor.  
Theory and practice of writing and language instruction. Recommended for prospective K-12 and college-level teachers. On-site participation in an educational setting required as a basis for research project.

498. Selected Topics in English (3)  
Intensive exploration of topics in language and literature.  
May be repeated to a maximum of 12 units with different topics in the same semester, but no more than 6 units may be applied to the English major. Topics announced in the Schedule of Classes. Course fee required if topic is offered abroad.

A. Detective Fiction  
B. Teaching ESL Academic Writing  
C. Poetry and the Self  

499. Directed Studies (1-3)  
Prerequisite: Consent of instructor.  
Independent study undertaken under supervision of a faculty member.  
May be repeated to a maximum of 4 units. Not applicable toward the Master of Arts in English.

GRADUATE LEVEL

See Comparative World Literature and Classics Department for other course offerings applicable to the MA in English.

505A. Seminar in Fiction Writing (4)  
Prerequisite: Admission to the MFA in Creative Writing. Discussion, criticism, and detailed evaluation of works in progress.  
Letter grade only (A-F).

505B. Seminar in Fiction Writing (4)  
Prerequisites: Admission to the MFA in Creative Writing and ENGL 505A. Discussion, criticism, and detailed evaluation of works in progress.  
Letter grade only (A-F).

506A. Seminar in Poetry Writing (4)  
Prerequisite: Admission to the MFA in Creative Writing. Discussion, criticism, and detailed evaluation of works in progress.  
Letter grade only (A-F).

506B. Seminar in Poetry Writing (4)  
Prerequisites: Admission to the MFA in Creative Writing and ENGL 506A. Discussion, criticism, and detailed evaluation of works in progress.  
Letter grade only (A-F).

510./410. Theories of Writing and Literacy (3)  
Prerequisite: ENGL 309 or ENGL 310 or consent of instructor. Focuses on several cross-disciplinary theories of producing written discourse. Studies how writing is learned, taught, viewed by the public, and used in social and academic interchange.  
Letter grade only (A-F).

511./411. Research Methods in Rhetoric and Composition (4)  
Introduction to interdisciplinary research methods in Rhetoric and Composition. Focuses on methods that have been motivating research since 1985, including archival, case study, ethnographic, historiographic, and teacher research. Intensive practice in conducting and writing research for interdisciplinary and/or public audiences.  
Letter grade only (A-F).

523./423. Semantics (3)  
Study of meaning in language. Letter grade only (A-F).

526./426. History of the English Language (3)  
Development of the English language from its beginnings to the present day.  
Letter grade only (A-F).

535. Theories and Practices in Composition (3)  
Prerequisite: ENGL 435 or consent of instructor. Focuses on formation of composition studies in the latter half of the twentieth century. Studies relationships among theories, practices, and research concerned with the teaching of writing, particularly at the college level.  
Letter grade only (A-F).

537. Selected Topics for In-Service Teachers (3)  
Designed for in-service teachers. Intensive studies and research in special, timely topics related to the teaching of English.  
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.

550. Old English Language and Literature (4)  
Prerequisite: Consent of instructor. Beowulf and other representative selections from Anglo-Saxon literature in the original language.  
Letter grade only (A-F).

551. Middle English Language and Literature (4)  
Prerequisite: Consent of instructor. Chaucer and other representative selections from Middle English literature in the original language.  
Letter grade only (A-F).

552./452. Literature of the Renaissance (1500-1603) (3)  
Prose and poetry of Marlowe, Sidney, Raleigh, Spenser and other predecessors and contemporaries of Shakespeare, noting the influence of Humanism and the emergence of literary identity.  
Letter grade only (A-F).

553./453. Literature of the Late Renaissance (1603-1660) (3)  
Poetry and prose (chiefly non-dramatic) of Milton, Bacon, Jonson, Donne and the 'Metaphysicals' and their contemporaries.  
Letter grade only (A-F).

554./451. Medieval Literature of the British Isles (3)  
Representative selections of Old and Middle English prose and poetry read for the most part in modern English, including Beowulf, the romance, medieval drama, Chaucer, and the ballad.  
Letter grade only (A-F).
555./455. English Literature of the Enlightenment (1660-1798) (3)
Prose and poetry (chiefly non-dramatic) of Swift, Dryden, Pope, Johnson, Boswell, and their contemporaries, with emphasis on major satires such as Gulliver's Travels and The Rape of the Lock. Letter grade only (A-F).

556./456. English Literature of the Romantic Period (1798-1832) (3)
Poetry and prose (chiefly non-dramatic) of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries, emphasizing the modern Romantic spirit, theories of literary art, and the concept of the self. Letter grade only (A-F).

558./458. English Poetry and Prose of the Victorian Age (1832-1900) (3)
Poetry and prose of Tennyson, Browning, Arnold, Carlyle, Mill, and others, emphasizing literary, social, and political issues, and religious controversies. Letter grade only (A-F).

559./459. English Literature of the Twentieth Century (1900-Present) (3)
Prose and poetry of Shaw, Conrad, Yeats, Lawrence, Joyce, Woolf, and others, emphasizing artistic experimentation and the development of modern value systems. Letter grade only (A-F).

562./462. Chaucer (3)
Works of Geoffrey Chaucer in Middle English. Letter grade only (A-F).

566./466. Irish Literature in English (3)
Major Irish authors from the Celtic Revival to the present. The literature will be placed in its historical and political contexts, paying particular attention to the relationship between politics and literature, the status of women, and questions of national identity. Letter grade only (A-F).

567A,B./467A,B. The English Novel (3,3)
History and development of long prose fiction in the British Isles to and since 1832. Letter grade only (A-F).

568./468. English Drama (3)
Readings from the history of English drama, excluding Shakespeare, including Marlowe, Jonson, and Restoration comedy. Letter grade only (A-F).

572./472. American Literature: 1820-1865 (3)
Major authors and works, along with newly recovered texts, from the period that is often called the "American Renaissance." Letter grade only (A-F).

573./473. American Literature: 1865-1918 (3)
Developments in poetry, the novel, the short story, and non-fictional prose in the United States between the Civil War and World War I. Letter grade only (A-F).

574./474. Twentieth-Century American Literature (3)
American literature from about 1914 to the present. Letter grade only (A-F).

575./475. The American Short Story (3)
History and development of the short story and its criticism in the United States. Letter grade only (A-F).

576A,B./476A,B. American Poetry (3,3)
History and development of poetry and its criticism in the United States to and since 1945. Letter grade only (A-F).

577A,B./477A,B. The American Novel (3,3)
History and development of the novel and its criticism in the United States to and since the 1920s. Letter grade only (A-F).

578./478. American Drama (3)
History and development of drama and its criticism in the United States. Letter grade only (A-F).

590. Directed Reading (3)
Students are assigned a reading list developed with the assistance of faculty. Works are discussed with the instructor during a series of conferences. Comprehensive paper due at end of semester. Taken for two semesters during student's second year of residency in MFA program. May be repeated to a maximum of 6 units. Letter grade only (A-F).

598. Directed Studies (1-3)
Prerequisites: Baccalaureate degree, consent of instructor. Independent creative writing activity under the supervision of a creative writing faculty member. May be repeated to a maximum of 6 units. Letter grade only (A-F).

605A. Advanced Seminar in Fiction Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, and ENGL 505B. Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

605B. Advanced Seminar in Fiction Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, ENGL 505B, and ENGL 605A. Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

606A. Advanced Seminar in Poetry Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, and ENGL 506B. Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

606B. Advanced Seminar in Poetry Writing (4)
Prerequisites: Admission to the MFA in Creative Writing, ENGL 506A, ENGL 506B, and ENGL 605A. Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

652. Seminar in the English Renaissance (4)
Prerequisite/Corequisite: ENGL 696. Intensive studies in the literature of the period, chiefly Elizabethan. Letter grade only (A-F).

653. Seminar in the Age of Milton (4)
Prerequisite/Corequisite: ENGL 696. Intensive studies in English literature of the Stuart and Commonwealth periods, including Milton. Letter grade only (A-F).

2016-2017 CSULB Catalog • English • 433
655. Seminar in Restoration and Eighteenth-Century Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Restoration and eighteenth century.
Letter grade only (A-F).

656. Seminar in Romantic Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Romantic period.
Letter grade only (A-F).

657. Seminar in Victorian Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature of the Victorian period.
Letter grade only (A-F).

659. Seminar in Twentieth-Century English Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in English literature from about 1900 to the present.
Letter grade only (A-F).

671. Digital Rhetoric (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies of consumption and production of digital media. Analyses relationships among rhetoric, writing, cultural studies, and technology; examines means of production transforming literate practice in humanities; and engages students in writing with digital media.
Letter grade only (A-F).

672. Seminar in the Nineteenth-Century American Renaissance (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in American literature from about 1820 to about 1865.
Letter grade only (A-F).

673. Seminar in American Realism (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in the development of realism in American literature.
Letter grade only (A-F).

674. Seminar in Twentieth-Century American Literature (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies of twentieth-century American writers.
Letter grade only (A-F).

681. Selected Topics - Seminar in Major Authors (4)
Prerequisite/Corequisite: ENGL 696.
Intensive studies in the works of one to three specific major authors. Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Geoffrey Chaucer
B. Daniel Defoe
C. William Faulkner
D. John Fowles
E. Robert Frost
F. Robinson Jeffers
G. Samuel Johnson
H. James Joyce
I. Thomas Malory
J. Herman Melville
K. Alexander Pope
L. William Shakespeare
M. Jonathan Swift
N. Oscar Wilde
O. William Butler Yeats
P. Wallace Stevens and William Carlos Williams
Q. J.R.R. Tolkien
R. Jane Austen

683. Selected Topics - Seminar in English Studies (4)
Prerequisite/Corequisite: ENGL 696.
Intensive explorations of topics in English studies. Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. American Autobiography
B. American Indian Literature
C. American Jewish Literature
D. American Women Writers, 1850-1900
E. Autobiography
F. Beowulf
G. British Encounters with India, 1757-1857
H. Current Issues in Rhetoric and Composition
I. Ethnic American Fiction
J. Feminism/Modernism
K. History of Composition Instruction
L. Medieval Drama
M. The Novel and Postmodernism
N. The Places and Spaces of Early English Drama
O. Revision and Editing Processes
Q. Teaching Basic Writing
R. Teaching Literacy
T. West Coast Writing after World War II
U. Victorian Imperial Romance

684. Seminar in Advanced Literary Theory (4)
Prerequisite: Completion of ENGL 696.
Intensive study in one or more of the principal theories of literature. Letter grade only (A-F).

685. Seminar in Rhetorical History and Theory (4)
Prerequisite/Corequisite: ENGL 696.
Intensive study of rhetorical history and theory from ancient to contemporary times. Letter grade only (A-F).

696. Seminar in Theory, Criticism, and Research (4)
Intensive study of critical theory, literary criticism, and research methods. Introduction to graduate-level writing and research, including compiling bibliographies, using scholarly resources, and writing critical research papers. Students not allowed to take ENGL 696 unless admitted to MA program. (English MA candidate may not be enrolled in any other 600 course without completion of or concurrent enrollment in ENGL 696.) Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisites: ENGL 696 and consent of instructor.
Individual research or intensive study under the guidance of a faculty member. Letter grade only (A-F).

698. Thesis (1-6)
Prerequisites: ENGL 696 and consent of instructor.
Planning, preparation, and completion of a thesis under supervision of a faculty committee. Must be advanced to candidacy. Must be taken for a total of 6 units.
American Language Institute

For students who need English language training prior to enrolling at CSULB, provides professional instruction in all reading, writing, listening and speaking. Conditional admission to CSULB is available for qualified students. International students subject to Graduation Writing Assessment Requirement and EPT/ELM requirements as all CSULB students. American Language Institute courses are for non-native speakers of English. ALI courses are recommended for international students on F1 visas.

Courses (ALI)

145. American Language Advanced I (3)
Prerequisite: Non-native speakers who score 137 or below on the English Placement Test, or 500 or below on the Exam in English as a Second Language, and who have not taken equivalent writing courses in another department, are eligible for enrollment. Counts toward elective credit for undergraduates. Does not count toward graduation for graduate students, but does count toward course load credit. Basic course in writing, intensive practice in every stage of writing process from generating ideas to final proofreading. Reviews and teaches organizational strategies and includes strategies for paragraph and sentence development and for making appropriate word choices. Teaches conventional mechanics, spelling and the grammar of standard edited written English.

150. American Language Advanced I (3)
Prerequisite: Non-native speakers who score 138-150 on the English Placement Test, or 501 through 550 on the Exam in English as a Second Language, or successful completion of ALI 145 with a grade of "C" or better. Counts toward elective credit for undergraduates. Does not count toward graduation for graduate students, but does count toward course load credit. Includes critical/analytical reading and expository writing with emphasis on longer essays. Analysis and practice of standard rhetorical modes of essay development.
ENVIRONMENTAL SCIENCE AND POLICY
College of Liberal Arts
College of Natural Sciences and Mathematics

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Faculty: Jake Alimahomed-Wilson (Sociology), Monica Argandona (ES&P), W. Frank Baber (Graduate Center for Public Policy and Administration), Austin Beahm (Geography), Richard J. Behl (Geological Sciences), Stuart R. Berryhill (Chemistry and Biochemistry), Suzanne Dallman (Geography), Stanley C. Finney (Geological Sciences), Elaine Frey (Economics), George Hart (English), Gregory J. Holk (Geological Sciences), Paul Laris (Geography), Carl Lipo (Anthropology), Xeumei Liu (Economics), Wade E. Martin (Economics), Martin McCarthy (ES&P), Steve Mezyk (Chemistry), Bruce Perry (Geological Sciences), Nancy Quam-Wickham (History), Christine M. Rodrigue (Geography), Lora Stevens (Geological Sciences), Dean Toji (Asian and Asian-American Studies), Reza Toossi (Mechanical and Aerospace Engineering), Desissa Underwood (Biological Sciences), Carla Weaver (Geological Sciences), Suzanne P. Wechsler (Geography), Christine Whitcraft (Biological Sciences)

Career Possibilities
Environmental Analyst • Teacher • Ecologist • Geochemist • Environmental Impact Report Writer • Community Development Specialist • Urban Planner • Environmental Planner • Peace Corps • Non-Governmental Organization Activist • Mass Media (Journalism, Radio, Television) • Environmental Advocate • Environmental Consultant • Public Relations • Public Policy Administrator • Environmental Law • Environmental Health • Environmental Economics • Environmental Toxicology • Sustainable Development Specialist • Green Business (For more information, see www.careers.csulb.edu.)

Introduction
The Environmental Science and Policy (ES&P) degrees program is jointly housed in the College of Liberal Arts and the College of Natural Sciences and Mathematics, reflecting its inherent interdisciplinary nature. A Bachelor of Arts and a Bachelor of Science as well as a minor are available. See the ES&P web-page for details. We highly encourage B.A. students to double major or seek a minor in a closely related discipline such as anthropology, economics, geography, international studies or political science. Students in the B.S. degree program are encouraged to double major or seek a minor in anthropology, biology, chemistry, earth science, ecology, economics, geography, geology, or political science.

Bachelor of Arts in Environmental Science and Policy (120 units)

Requirements
Lower Division:
Take all of the following courses:
- ECON 100 Principles of Macroeconomics (3)
  **“C” or better required.
  Prerequisites: MATH 103 or higher and one GE Foundation course.
- ECON 101 Principles of Microeconomics (3)
  **“C” or better required.
  Prerequisite/Corequisite: MATH 103 or higher.
- ESP 200 California Environmental Issues (3)
  **“C” or better required.
  Prerequisites/Corequisites: (GEOL 102, GEOL 104 OR GEOG 140 or GEOG 130 or ESP 101) and (BIOL 200 or BIOL 211 or ECON 101); or instructor consent.
- GEOL 102 General Geology (3)
  **“C” or better required.
  Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.
- GEOL 104 Geology Laboratory (1)
  **“C” or better required
  Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.
- GEOL 280 Water Resources and Society (3)
  Prerequisites: GEOL 102, GEOL 104. Four years of high school mathematics.

Take one of the following choices:
- BIOL 200 General Biology (4)
  **“C” or better required.
  Prerequisite: GE Foundation requirements.
- BIOL 211 Introduction to Evolution and Diversity (4)
  **“C” or better required.
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

Take one of the following courses:
- CHEM 111A, CHEM 140; GEOL 191;
- Take one of the following courses (**“C” or better required.):
  - MATH 115, MATH 119A, MATH 122
  - *Take one of the following courses:
    - ESP 101 or GEOG 140
    - Any Introductory Environmental Science or Studies course

Upper Division
Take all of the following courses:
- ESP 330 California Ecosystems (3)
  Prerequisites: GEOG 101 or GEOG 130 or GEOG 140 or ESP 200 AND GEOG 200 or BIOL 260.
Take one course selected from the following:

- GEOG 481 Geographic Information Science for Natural

Take one of the following courses:

- ECON 310 Microeconomic Theory (3)
  Prerequisites: ECON 100, ECON 101, and either MATH 115 or MATH 122, with grades of "C" or better in all prerequisite courses.

- ECON 317 (3)
  Prerequisite: ECON 100, 101, ESP 200 and one of the following:
  MATH 115 or MATH 119A or MATH 119B or MATH 122

Take one of the following courses:

- GEOG 473 Remote Sensing (4)
  Prerequisites: GEOG 200 (or equivalent) and GEOG 280 or consent of instructor.

- GEOG 481 Geographic Information Science for Natural Sciences (4)
  Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or BIOI 153 or GEOL 102.

Take one course selected from the following:

- POSC 328, POSC 329, POSC 431, POSC 432, GEOG 446

Take one course selected from the following:

- ECON 462, ECON 463, ECON 464

Take one course selected from the following:

- GEOG 442, GEOG 447, GEOG 455, GEOG 458

Take one course selected from the following:

- HIST 464, HIST 482; ENGL 444; ASAM 350; WGSS 424

Take one course selected from the following:

- ANTH 450; BIOI 457, BIOI 459, ENGL 444; ESP 392; ESP 495; GEOG 443, GEOG 448, GEOG 486, GEOG 492; HIST 482; NSCI 492

Additional 6 units of course work selected from courses approved as options satisfying upper division requirements above or from the following approved list of additional courses; all must be upper division or approved by the advisor.

Additional Approved Courses:

- AIS 336, ANTH 401; BIOI 450, BIOI 456; ECON 355, ECON 403, ECON 410, ECON 434, ECON 485, ECON 486; ENGR 302; ESP 490, ESP 499; GEOG 340, GEOG 355, GEOG 400, GEOG 440, GEOG 441, GEOG 443, GEOG 444, GEOG 445, GEOG 452, GEOG 460, GEOG 464, GEOG 471, GEOG 473; GEOG 475, GEOG 482, GEOG 487A, GEOG 488, GEOG 339, GEOG 445 HHFM 370; MKTG 405; SOC 350, SOC 355, SOC 410.

**Bachelor of Science in Environmental Science and Policy (120 units)**

**Requirements**

**Lower Division:**

Take all the following courses:

- BIOL 211 Introduction to Evolution and Diversity (4)
  **"C" or better required.**
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

- BIOL 212 Introduction to Cell and Molecular Biology (4)
  **"C" or better required.**
  Prerequisites: BIOL 211, CHEM 111A with grades of "C" or better. Prequisite/Corequisite: CHEM 111B.

- BIOL 213 Introduction to Ecology and Physiology (4)
  **"C" or better required.**
  Prerequisites: BIOL 211, BIOL 212, CHEM 111B, each with a grade of "C" or better.

- BIOL 260 Biostatistics (3)
  **"C" or better required.**
  Prerequisites: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.

- CHEM 112 General Chemistry (5)
  **"C" or better required.**
  Prerequisites: CHEM 111A and MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

- CHEM 227 (or CHEM 220A) Fundamentals of Organic Chemistry (3)
  Prerequisite: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

- CHEM 113 General Chemistry (5)
  **"C" or better required.**
  Prerequisites: CHEM 111A and MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

- CHEM 227 (or CHEM 220A) Fundamentals of Organic Chemistry (3)
  Prerequisite: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

- ECON 100 Principles of Microeconomics (3)
  **"C" or better required.**
  Prerequisite/Corequisite: MATH 103 or higher.

- ES P 200 California Environmental Issues (3)
  Prerequisites/Corequisites: (GEOL 102, GEOG 104 OR GEOG 140 or GEOG 130 or ESP 101) and (BIOL 200 or BIOL 211 or ECON 101); or instructor consent.

- GEOG 102 General Geology (3)
  **"C" or better required.**
  Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

- GEOG 104 Geology Laboratory (1)
  **"C" or better required.**
  Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOG 102.

- GEOG 280 Water Resources and Society (3)
  Prerequisites: GEOG 102, GEOG 104. Four years of high school mathematics.

Take one of the following courses:

- MATH 122 Calculus I (4)
  **"C" or better required.**
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

Or

- MATH 119A Survey of Calculus I (3)
  **"C" or better required.**
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.

Take one of the following courses:
MATH 123 (or 119B with advisor approval) Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.
Or
MATH 119B Survey of Calculus II (3)
Prerequisite: A grade of "C" or better in MATH 119A or MATH 122.
Take one of the following courses:
PHYS 151 (or PHYS 100A with advisor approval) Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.
Or
PHYS 100A General Physics (4)
Prerequisite: MATH 109 or MATH 113 or MATH 119A or MATH 122

(BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L, and BIOL 213L here)

Upper Division:
Take all of the following courses:
BIOL 350 General Ecology (3)
Prerequisites: BIOL 211, BIOL 212, BIOL 213, BIOL 260; MATH 119A or MATH 122 all with a grade of "C" or better.
ES P 300 Environmental Law and Policy (3)
Prerequisites: ESP 200 and upper division standing; or consent of instructor.
ES P 400 Environmental Science and Policy Capstone Project (3)
Prerequisites: BIOL 350 or ESP 330; ECON 306 or ECON 462 or ECON 463 or ECON 464 or CE 406; ESP 300; GEOG 481 or GEOG 473; GEOL 300; OR consent of instructor. In addition, students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for GWAR.
GEOL 300 Earth Systems and Global Change (3)
Prerequisites: GE Foundation requirement, upper division standing, and CHEM 100 or CHEM 111A or GEOL 102 or GEOL 106 with a grade of "C" or better.
Take one of the following courses:
GEOG 481 Geographic Information Science for Natural Sciences (4)
Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or BIOL 153 or GEOL 102.
Or
GEOG 473 Remote Sensing (4)
Prerequisites GEOG 200 (or equivalent) and GEOG 280 or consent of instructor.
Take the following course:
ECON 306 Environmental Issues of the World Economy (3)
Prerequisites: G.E. Foundation and the Category B requirement, and ECON 101.
Take 3 units of social science electives, chosen from the following:
GEOG 340, GEOG 355, GEOG 440, GEOG 446, GEOG 447, GEOG 448, GEOG 455, GEOG 458, GEOG 460; GEOG 464; HIST 482; ENGL 444; ASAM 350; SOC 350; WGSS 424; ECON 462, ECON 463, ECON 464
Take 9 units of natural science electives, chosen from the following:
BIOL 312, BIOL 313, BIOL 316, BIOL 324, BIOL 342, BIOL 345, BIOL 353, BIOL 412, BIOL 415, BIOL 419, BIOL 420, BIOL 421, BIOL 423, BIOL 424, BIOL 427, BIOL 439, BIOL 448, BIOL 450, BIOL 451, BIOL 452, BIOL 454A, BIOL 454B, BIOL 455, BIOL 456, BIOL 457, BIOL 459, BIOL 466, GEOG 339, GEOG 341, GEOG 445, GEOG 461, GEOG 465, GEOG 466, GEOG 474, GEOG 477.

Take an additional 3 units selected from the social science or natural science electives listed above if necessary to meet the university requirement for upper division units.

Minor in Environmental Science and Policy

This minor may be combined with any major at CSULB except the B.A. and B.S. in Environmental Science and Policy. It requires a minimum of 20 units (at least 9 of which must be upper division) of course work.

Prerequisites
Take all the following prerequisite courses (do not count toward the minor):
GEOL 102 and GEOL 104; OR GEOG 140 OR GEOG 130 OR ESP 101) AND (BIOL 200 OR ECON 101).

Requirements
Take all the following courses:
ES P 200 California Environmental Issues (3)
Prerequisites/Corequisites: (GEOL 102, GEOL 104 OR GEOG 140 or GEOG 130 or ESP 101) and (BIOL 200 or BIOL 211 or ECON 101); or instructor consent.
ES P 300 Environmental Law and Policy (3)
Prerequisites: ESP 200 and upper division standing; or consent of instructor.
Take a minimum of 14 units from the following:
At least 9 units of sustainability coursework from the following list:
With no more than two elective courses from the following list:
BIOL 350, BIOL 353, BIOL 450, BIOL 451, BIOL 456, BIOL 457, BIOL 459, BIOL 464; ECON 306, ECON 462, ECON 463, ECON 464; GEOG 440, GEOG 442, GEOG 443, GEOG 444, GEOG 447, GEOG 448, GEOG 455, GEOG 458, GEOG 460, GEOG 481, GEOG 487A; and GEOL 280, GEOL 300, GEOL 339, GEOL 465, GEOL 466, GEOL 474, HIST 482, ENGL 444, WGSS 424.
Environmental Science and Policy Courses (ESP)

LOWER DIVISION

101. The Global Environment
Introduction to the Earth's principal human-environmental relationships and biogeographic processes with a focus on how human actions impact the geography of living things from the local to the global scale.
Prerequisite: One foundation Course
Same course as GEOG 101. Not open for credit to students with credit in GEOG 101.

200. California Environmental Issues (3)
Prerequisites/Corequisites: (GEOL 102, GEOL 104 OR GEOG 140 or GEOG 130 OR ESP 101) and (BIOL 200 or BIOL 211 or ECON 101); or instructor consent.
Corequisite(s): (GEOL 102, 104 OR GEOG 140 OR GEOG130 OR ESP 101) AND (BIOL 200 or BIOL 211 OR ECON 101); OR instructor consent.
Introduction to the history, nature, status, and future of a major environmental issue in California. Biological, physical, and societal aspects will be examined and integrated with the goal of developing a plan to meet the challenges of the 21st Century.
Letter grade only (A-F). (Lecture 2 hrs., discussion 1 hr., and field trips.)

UPPER DIVISION

300. Environmental Law and Policy (3)
Prerequisites: ESP 200 and upper division standing; or consent of instructor.
Property rights, federal and state roles in decision-making, rights and limits of both private parties and the broad public interest. Emphasis on science in decision-making, choices between regulations and incentives, and role of bureaucracy.
Letter grade only (A-F). (2 hrs lecture, 1 hr discussion).

330. California Ecosystems (3)
Prerequisites: GEOG 130 or GEOG 140 or ESP 101 or ESP 200; AND GEOG 200 or BIOL 260; or instructor consent.
Introduction to the ecology and biogeography of natural California landscapes, including field examination of habitats, collection and analysis of environmental data, and reporting of field or laboratory findings.
Letter grade only (A-F). Same course as GEOG 330. Not open for credit to students with credit in GEOG 330.
(2 hours lecture/activity, 2 hours field/laboratory)

392. Climate Action and Sustainability at CSULB (3)
Prerequisites: Completion of the entire Foundation curriculum along with one or more Explorations courses and upper-division standing
Students join CSULB’s efforts to achieve climate neutrality (zero net greenhouse gas emissions) and sustainability through service learning assignments working with staff, faculty and community partners. Provides opportunities for all majors to apply and develop skills through hands-on experience.
6 hours activity. Same course as GEOG 392. Not open for credit to students with credit in GEOG 392.

400. Environmental Science and Policy Capstone Project (3)
Prerequisites: BIOL 350 or ESP 330; ECON 306 or ECON 462 or ECON 463 or ECON 464 or CE 406; ESP 300; GEOG 481 or GEOG 473; GEOL 300; OR consent of instructor. Open to Environmental Science and Policy and Geography majors only. In addition, students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for GWAR.
An interdisciplinary evaluation of the physical, biological, social, economic, and legal dimensions of a local environmental issue. Examples include policies to control surface water run-off, policies for marine protected areas, dredging harbors, and developing, preserving, and restoring wetlands and estuaries. Requires a grade of "C" or better to pass.
Letter grade only (A-F). (2 hrs lecture, 3 hr laboratory-field work).

490. Selected Topics in Environmental Science and Policy (3)
Prerequisite: Consent of instructor.
Topics of current interest in environmental science and policy selected for intensive development.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

495. Applied Internship (3)
Prerequisites: Upper division standing. Open to Environmental Science and Policy and Geography majors only.
Practical experience in an appropriate business, government or community-based organization to enhance professional development.
Same course as GEOG 492. Not open for credit to students with credit on GEOG 492. May be repeated to a maximum of 6 units; a second semester experience shall differ substantially from first semester experience. (6 hours activity/laboratory)

499. Environmental Science and Policy Directed Study (1-6)
Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.
May be repeated to a maximum of 6 units in different semesters.
Department Chair: Wendy Reiboldt  
Department Office: Family and Consumer Sciences (FCS) - 001  
Telephone / Fax: (562) 985-4484 / 985-4414  
Website: www.csulb.edu/colleges/chhs/departments/fcs

Faculty: Mariné Aghekyan, Michelle Barrack, Lee Blecher, Marie Botkin, Maria Claver, Gail C. Frank, Virginia Gray, Libby Gustin, Young Ha, HyeJeong King, James E. Koval, Peter Kreysa, Suzanne Marshall, Nilufer Medora, Wendy Reiboldt, Cheryl Rock, Roudi Roy, MyungHee Sohn, Richard V. Tuveson, Long Wang, Jung-Mao (Ronnie) Yeh

Baccalaureate Program Coordinator: Richard V. Tuveson  
Graduate Coordinator: Virginia Gray  
Administrative Support Coordinators: Mikal Lok, Marina Bendersky, Andrew Redmayne  
Instructional Support Technician: Bonnie Rice

Accreditation
The Department of Family and Consumer Sciences is accredited by the American Association of Family and Consumer Sciences (AAFCS) (American Association of Family and Consumer Sciences, Council for Accreditation, 1555 King Street, Alexandria, VA 22314, phone: 703-706-4600). The Didactic Program in Dietetics and the Dietetic Internship are currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, phone: 312-899-0040, ext. 5400. The Hospitality Management program is accredited by the Accreditation Commission for Programs in Hospitality Administration. The Preschool and Toddler Study Laboratories are accredited by The National Association for the Education of Young Children. Family Studies Program is approved by the National Council on Family Relations to offer a program leading to Provisional Family Life Education Certification.

Undergraduate Programs

Bachelor of Arts in Family and Consumer Sciences
This degree offers six options:  
• Child Development and Family Studies  
• Consumer Affairs  
• Family Life Education  
• Fashion Design  
• Fashion Merchandising

Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Science in Dietetics and Food Administration
This degree offers two options:  
• Nutrition and Dietetics  
• Food Science (suspended)

Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Science in Hospitality Management
Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Graduate Programs

Master of Arts in Family and Consumer Sciences
Please note, admission to this program is currently suspended to new students. A Master's in Business Administration (MBA) with a Specialization in Consumer Affairs, Fashion Merchandising and Design, or Hospitality Management is offered through the College of Business Administration. Please contact the advisor in these areas for further information. The advisors include:

- Dr. Wendy Reiboldt (Wendy.Reiboldt@csulb.edu), Consumer Affairs  
- Dr. Marine Aghekyan (Marine.Aghekyan@csulb.edu), Fashion Merchandising and Design  
- Dr. Libby Gustin (Libby.Gustin@csulb.edu), Hospitality Management

This program is designed to prepare students with a background in program evaluation and administration, research methods, and application of advanced subject matter knowledge to enhance the quality of life of individuals, families, and communities. The advanced candidate selects either a thesis track or directed project track to facilitate a selected career path.

There are four specializations in this program:  
• Consumer Affairs  
• Family and Consumer Sciences Education  
• Fashion Merchandising  
• Hospitality Management

Interested students should contact the Department of Family and Consumer Sciences Graduate Coordinator at (562) 985-4484. Online information can be found at http://www.csulb.edu/colleges/chhs/departments/fcs/programs/graduate/MADegree.htm.

Admission
Prospective applicants must comply with University requirements for admission to graduate studies as outlined in this catalog. Students must concurrently submit application to the University Admissions and Records office and the Department. A cohort of students will be admitted each Fall semester.

Admission Requirements to the Department
Admission to the Master of Arts in Family and Consumer Sciences is dependent upon approval by the Graduate
Requirements for Graduation

1. Meet University regulations that apply to all graduate programs.
2. Complete minimum of 30 units of approved upper-division and graduate courses.
3. Complete the following required core courses (12 units):
   - EDP 419
   - FCS 563 Program Evaluation (3)
     Prerequisites: Upper division or graduate course in statistics; FCS 696 (may be taken concurrently) or equivalent.
   - FCS 600 Seminar in Leadership and Administration (3)
     Prerequisites: Graduate standing.
   - FCS 691 Instructional Strategies (3)
     Prerequisite: Graduate standing.
   - FCS 696 Research Methods (3)
     Prerequisites: Upper-division course in statistics.
   - FCS 697 Directed Research (3)
     Prerequisites: Advancement to candidacy.
   - FCS 698 Thesis (3)
     Prerequisites: FCS 697.
   - FCS 692 Directed Project (3)
     Prerequisites: FCS 697.
   - FCS 699 Directed Project (3)
     Prerequisites: FCS 697.

4. Complete an additional 12 units of Advisor approved courses.
5. Complete a defense of the research proposal, and oral defense of Thesis or Directed Project to the research committee, and Poster Presentation at FCS Department Poster Session.

Master of Science in Nutritional Science

This degree offers four emphases: Nutritional Science, Latino Health and Nutrition, Food Science, and Dietetic Internship.

Admission Criteria

Prospective applicants must comply with University requirements for admission to graduate studies as outlined in this catalog. Students must concurrently submit applications to the University Admissions and Records Office and the Department of Family and Consumer Sciences.

Admission to the Master of Science in Nutritional Science is dependent upon the recommendation by the Graduate Coordinator and the College of Health and Human Services Associate Dean. The requirements for prospective graduate students for the Master of Science degree are:

1. A bachelor’s degree in Nutrition, Dietetics, or related field with an undergraduate overall GPA of 3.0 and a GPA of 3.0 on the last 60 undergraduate units attempted.
2. A minimum score of 4 on the Analytical Writing section of the general GRE.
3. A passing score on the test of English as a Foreign Language (TOEFL) if the applicant's native language is not English and preparatory education was principally in a language other than English.
4. Submission of the following to the Graduate Coordinator in the Department of Family and Consumer Sciences:
   A. A copy of the completed application submitted to the CSULB Office of Enrollment Services.
   B. Three letters of recommendation with at least two from instructors who have direct knowledge of the applicant's scholastic ability and professional qualifications.
5. Completion of all prerequisites for 500/600 level courses prior to admission.
Additional Admission Criteria for Students

Choosing the Dietetic Internship Emphasis
1. Completion of an ACEND accredited Didactic Program in Dietetics with an original Verification Statement from the Didactic Program Director;
2. Related volunteer or work experience in the United States;
3. Completion of the Dietetic Internship Centralized Application System (DICAS) application by the deadline as seen on the Graduate Advising home page for the fall semester to receive consideration for admission;
4. Additional application materials to Program Director postmarked by the deadline as seen on the Graduate Advising home page for the fall semester to receive consideration for admission which includes a nutrition-related experience worksheet and a GPA calculation sheet (both forms can be downloaded from the Internship Program website: www.csulb.edu/dieteticinternship); and,
5. Interview with Program Director and review committee.

Prerequisites
1. Prerequisites for all courses carrying graduate credit must have been completed within five years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit obtained by written examination.

Advancement to Candidacy
1. Complete 9 units of graduate courses, including FCS 696.
2. Maintain a 3.0 GPA for all course work attempted as a graduate student.
3. Complete a Program of Study in consultation with a faculty advisor.
4. Approval by the Graduate Coordinator of Family and Consumer Sciences and the Associate Dean of the College of Health and Human Services.
5. Enrolled in the semester in which the Advancement to Candidacy takes place.

Retention
1. Maintain a minimum of 3.0 GPA in all graduate work completed at CSULB and all graduate work transferred to meet graduate requirements.
2. Maintain satisfactory progress toward the degree objective.

Requirements
Completion of a minimum of 36 units.
Take all of the following core courses (15 units)
EDP 519 or HSC 503 or statistics course approved by the faculty advisor.
FCS 530A Carbohydrates, Lipids and Proteins (3) Prerequisites: NUTR 436, NUTR 335 BIOL 260.
FCS 530B Vitamins and Minerals (3) Prerequisites: NUTR 436, NUTR 335 BIOL 260.
FCS 696 Research Methods (3) Prerequisite: Upper-division course in statistics.
FCS 697 Directed Research (3) Prerequisite: Advancement to candidacy.
Take one of the following capstone courses (3 units):
FCS 692 Directed Project (3) Prerequisite: FCS 697.
FCS 698 Thesis (3) Prerequisite: FCS 697

Defense of Research Proposal, Oral Defense of Thesis or Directed Project to Committee, and Poster Presentation at FCS Department Poster Session
Complete one of the following emphases (18 units):
1. Select 6 courses for the Nutritional Science Emphasis.
FCS 531, FCS 539 , FCS 563, FCS/KIN 568, FCS 636; BIOL 570; EDAD 541, EDAD 677A; HSC 430, HSC 500; KIN 551, KIN 566
Or other courses selected in consultation with the Graduate Advisor.
2. Select 6 courses in the Latino Health and Nutrition Emphasis:
HSC 507; FCS or HSC 534; FCS or HSC 537; HHS 592A, HHS 634, HHS 635
3. Select 6 courses in the Food Science Emphasis:
FCS 532, FCS 535, FCS 592, FCS 597
Electives selected in consultation with Graduate Advisor (6)
4. Academy of Nutrition and Dietetics Accredited Internship Program:
FCS 591A Professional Practicum in Dietetics (3,3,3)
FCS 591B Seminar in Dietetic Practice (3,3)
One 3 unit elective course (3)
The department offers a combined Master of Science in Nutritional Science and Internship Program in Nutrition and Dietetics (IPND) supervised practice. The IPND is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). Upon successful completion of the IPND, the student will be eligible to write the Registration Examination for Dietitians.
The IPND’s mission is to provide contemporary training of the entry-level nutrition professionals who will become valued leaders in multi-ethnic communities, healthcare programs and food production settings for the years 2012-2022. Two major goals of the IPND are:
1. To prepare entry-level dietitians who can apply the science of nutrition for the well-being of individuals throughout the lifecycle, and
2. To prepare graduates of a Master of Science in Nutritional Science degree who are dedicated and confident in their profession.
The Internship Program has a “Nutrition Across the Life Cycle Communication” (NALCC) Concentration. The concentration is designed to develop unique communication, education and health promotion skills. These skills will enhance the ability of graduates to interview, counsel, and guide individuals with nutrition decisions and eating behaviors at all ages of individuals
across the life cycle. In addition, the concentration prepares graduates with the ability to develop health promotion and chronic disease prevention programs for individuals and groups.

The IPND provides 1,200 hours of practicum experience (FCS 591A: Professional Practicum in Dietetics) within a broad array of disciplines including nutrition therapy, foodservic systems management, community and business/entrepreneurial nutrition. The supervised practice is conducted off campus at a variety of excellent facilities including, but not limited to, medical centers, health departments, school districts and community service organizations. An additional didactic course (FCS 591B: Seminar in Dietetic Practice) supporting the practicum is taken and constitutes 276 hours of class time.

The student must enroll in a minimum of two full academic years to finish both the M.S. in Nutritional Science and the Internship Program. Graduate coursework is to be completed the first year (fall, spring, and summer). Supervised practice is to be completed the second year (second summer session, fall, spring, and summer). The thesis or project is to be completed by the end of the second year.

**Dietetic Internship Completion**

The student will complete the MS/IPND when the following has been achieved:

1. Completion of 1,200 hours of practicum (FCS 591A) with a minimum of satisfactory performance as evaluated by preceptors and receiving a credit grade in the course;
2. Completion of the Seminar in Dietetic Practice: FCS 591B with a grade of B or higher;
3. Completion of all designated graduate courses with a grade of "B" or higher;
4. Completion of 15 units of core courses and one 3 unit elective course;
5. A written Thesis or Directed Project; and

When the student meets these requirements, he/she will receive an ACEND Verification Statement signed by the Program Director. The graduate will then be eligible to attempt the Registered Dietitian exam.

Students can view details of the dietetic internship at www.csulb.edu/dieteticinternship.

**Single Subject Teaching Credential in Home Economics**

For information, refer to the undergraduate section in Family and Consumer Sciences Education.

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**Family and Consumer Sciences Courses (FCS)**

**LOWER DIVISION**

**299. Introduction to Family and Consumer Sciences (1)**

Must be taken during first semester as Family and Consumer Sciences or Dietetics and Food Administration major. Provides a general overview of Family and Consumer Sciences as a discipline of study and a profession. Examines historical and philosophical perspectives and considers issues, trends, and career opportunities within each option in the department. Letter grade only (A-F). (Lecture-discussion 1 hour) Not open for credit to students with credit in FCSE 299.

**UPPER DIVISION**

**392. FCS Field Experience (3)**

Prerequisites: Upper division standing; majoring in a FCS specialization; consent of instructor.

Field experience (120 hours). Student assumes a pre-professional role in an agency, school, business, or community setting. Objectives and placement preapproved by student's major faculty advisor. Internship supervisor monitors and evaluates student performance based on contractual, pre-established criteria. Letter grading only (A-F). May be repeated for a maximum of 6 units in different semesters. Not open for credit to students with credit in FCSE 392.

**392A. Field Experience in Child Development and Family Studies (3)**

Prerequisites: Upper division standing; major in Family and Consumer Sciences with an Option in Child Development and Family Studies; Consent of Instructor. Not open for credit to students with 6 units of FCSE 392. May not be taken concurrently with CDFS 492A or CDFS 492B.

Field experience (120 hours). Student assumes a pre-professional role in a setting focusing on child development and family studies. Objectives and placement preapproved by major faculty advisor. Internship supervisor monitors and evaluates performance based on contractual, pre-established criteria. Letter grading only (A-F). May be repeated for a maximum of six units in different semesters.

**490. Selected Topics in Family and Consumer Sciences (1-3)**

Group investigation of selected topics. May be repeated to a maximum of 9 units. Topics announced in the Schedule of Classes. (Seminar 1-3 hours) Not open for credit to students with credit in FCSE 490, FCSE 490B or FCSE 490D.

**B. New York Fashion Study Tour (course fee may be required)**

**D. Children and Families in New Zealand and in the U.S.A. Comparative Study Child U.S. and N.Z.**

**492G. Internship in Gerontology (3)**

Prerequisites: Student must be a Gerontology Certificate candidate; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of the Gerontology program director; and GERN 400, ANTH 454, PSY 365 or HDEV 357. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.

Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation. May be repeated for 6 units maximum. Same course as GERN 492G. Not open for credit to students with credit in GERN 492G. (Seminar 3 hours)

**497. Directed Studies (1-3)**

Prerequisites: Upper division standing, consent of instructor. Independent study under the supervision of a faculty member. Exploration/experience in areas not a part of any regular course. May be repeated to a maximum of 6 units. Not open for credit to students with credit in FCSE 497.
499. Professionalism and Leadership in Family and Consumer Sciences (1)
Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
Analysis of contemporary issues, public policies and future directions of FCS as discipline of study and a profession with integrated specializations.
Letter grade only (A-F). (Lecture-Discussion 2 hours) Not open for credit to students with credit in FCSE 499.

GRADUATE LEVEL

502. Child and Family Law (3)
Prerequisites: CDFS 312 and upper division standing.
Establishment, conduct, and termination of marital and non-marital family relationships, including the rights and duties of the parties involved. Topics include marital disillusionment, child custody issues, property rights, domestic violence, adoption, support, genetic testing, and new trends in family law.
Letter grade only (A-F). (Lecture-discussion 3 hours)

520. Personal Finance for the Aging (3)
Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Letter grade only (A-F). Same course as GERN 520. Not open for credit to students with credit in GERN 520. (Lecture-discussion 3 hours)

525. Personal Financial Planning Analyses (3)
Prerequisites: CAFF 223 or consent of instructor.
Analysis and protection of personal and family resources; planning and forecasting goals; development of financial strategies utilizing insurance, investment, tax management, pensions, wills and trusts.
Letter grade only (A-F).

526. Family Financial Problems (3)
Prerequisites: CAFF 223 or consent of instructor.
Theory and practice in the diagnosis of family financial crises; selecting alternative solutions; constructing practical methods for the prevention of family financial problems.
Letter grade only (A-F). (2 hours discussion, 3 hours laboratory)

529. Consumer Protection (3)
Prerequisites: Upper Division course in consumer affairs or consent of instructor.
Concepts of consumer protection with analysis of a myriad of resources available for individuals and families with consumer problems.
Letter grade only (A-F). (Seminar 3 hours)

530A. Carbohydrates, Lipids and Proteins (3)
Prerequisites: NUTR 436, NUTR 335 BIOL 260.
Nutritional, metabolic and clinical aspects of carbohydrates, lipids and proteins. Current knowledge of interactions between macronutrients and assessment of needs.
Letter grade only (A-F). (Seminar 3 hours)

530B. Vitamins and Minerals (3)
Prerequisites: NUTR 436, NUTR 335 BIOL 260.
Letter grade only (A-F). (Seminar 3 hours)

531. Advanced Community Nutrition (3)
Prerequisites: NUTR 436 and NUTR 335, NUTR 461.
Program planning and evaluation with emphasis on major nutrition-related public health problems among target populations. Protocol development, collection and analysis of data. Verbal and written communications.
Letter grade only (A-F). (Lecture-discussion 3 hours)

532. Food Analysis (3)
Prerequisites: CHEM 227, FSCI 332 or equivalent.
Application of scientific methods of food analysis. Consideration of manner in which such variables as ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems.
Letter grade only (A-F). Course fee may be required. (Seminar 2 hours, Laboratory 3 hours)

534. Advanced Latino Nutrition, Health and Chronic Disease Prevention (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
Explores nutrition-related and contextual factors associated with the high rates of chronic disease among diverse Latino-specific subpopulations and provides culturally relevant strategies for prevention.
Letter grade only (A-F). Same course as HSC 534. Not open for credit to students with credit in HSC 534.

535. Food Processing, Preservation and Packaging (3)
Prerequisites: FSCI 332 or consent of instructor.
Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutrition. Evaluation of chemical additives. Microbiological aspects of food safety.
(Lecture-discussion 2 hours, Laboratory 3 hours)

537. Culturally Responsive Nutrition Promotion for Latinos (3)
Prerequisites: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related field.
Explores the need and methods to develop culturally and linguistically relevant nutrition education with a focus on the Latino population. Students will analyze, evaluate, and create culturally competent nutrition interventions for the Latino community.
Letter grade only (A-F). Same course as HSC 537. Not open to students with credit in HSC 537.

539. Nutrition and Aging (3)
Prerequisites: NUTR 132 or BIOL 207 or BIOL 301 or GERN 400 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older adults.
Letter grade only (A-F). Same course as GERN 539. Not open for credit for students with credit in GERN 439, GERN 539 or NUTR 439.

555. Global Perspectives in Fashion Merchandising (3)
Prerequisites: FMD 351 and FMD 355, MKTG 300, and Graduate standing, or consent of instructor.
Application of merchandising concepts for the budgeting, buying, promoting, and selling of fashion apparel and accessories in global retail organizations.
Letter grade only (A-F).
558. Fashion Product Development (3)  
Prerequisites: FMD 353, Graduate standing, or consent of the instructor.  
Process of designing and engineering fashion products to be serviceable, producible, salable, and profitable for various consumer market segments.  
Letter grade only (A-F).

563. Program Evaluation (3)  
Prerequisites: Upper division or graduate course in statistics; FCS 696 (may be taken concurrently) or equivalent.  
Principles, design, and methods of program evaluation for use by Family and Consumer Sciences and Gerontology professionals. Selection and development of instrumentation for data collection and interpretation and methods of reporting.  
Letter grade only (A-F). Same course as GERN 563. Not open for credit to students with credit in GERN 563. (Seminar 3 hours).

568. Nutrition for Exercise and Performance (3)  
Prerequisites: NUTR 132, KIN 301 for the KIN Fitness option and the KIN Exercise Science option or BIOL 207 for the Nutrition and Dietetics option.  
Explores the role nutrients play in exercise and performance enhancement. Topics include evaluation of energy needs during physical activity, examination of weight management practices, assessment of nutritional status, and investigation of contemporary dietary issues related to exercise.  
Letter grade only (A-F). Same course as KIN 568. Not open for credit to students with credit in KIN 568. Open to all graduate Kinesiology students in the the Adapted Physical Education, Coaching and Student Athlete Development, Pedagogical Studies (for K-12 teachers), Sport Management, Individualized Studies, Exercise Science, Exercise Physiology and Nutrition, Sport and Exercise Psychology, and Sports Medicine and Injury Studies options and M.S. students in the Nutritional Science without Dietetic Internship, Nutritional Science with Dietetic Internship, and Food Science emphases and/or consent of instructor.

572. Advanced Hotel Administration (3)  
Prerequisites: HHFM 372 or consent of instructor.  
Principles of organization, administration, and leadership in hotel and lodging operations are explored. Topics include organizational management, human resource management, productivity, marketing, financial management, and quality service management as they are applied to the hotel and lodging industry.  
Letter grade only (A-F).

574. Cost Control in Hospitality Foodservice and Hotel Management (3)  
Prerequisites: HHFM 275 or HHFM 276 or consent of instructor.  
Financial management of food, labor, supplies, and other operational costs; procedures for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; inventory and security management; computer applications; and analysis of financial reports in hospitality foodservice and hotel industry.  
Letter grade only (A-F). (Lecture/Discussion 3 hours).

577. Restaurant and Dining Management (3)  
Prerequisites: HHFM 276 or consent of instructor.  
Principles of organization and administration in commercial and non-commercial foodservice operations are explored. Includes food purchasing, receiving, storage, inventory control, marketing, organizational management, human resource management, productivity, financial management, and quality management as applied to the foodservice industry. Fieldtrips required.  
Letter grade only (A-F). (Discussion 3 units)

579. Leadership and Strategic Management in the Hospitality Industry (3)  
Prerequisite: Graduate Standing.  
Explore principles of organization, administration, and leadership in the hospitality industry. Topics include leadership, organizational theory, strategic management, team building, motivation, communication, and quality improvement as applied to the hospitality industry.  
Letter grade only (A-F).

590. Selected Topics in Family and Consumer Sciences (3)  
Prerequisites: Enrollment in a graduate major in the Family and Consumer Sciences department; advancement to candidacy; instructor consent.  
Advanced and specialized topics of current interest in the field of family and consumer sciences selected for intensive development. Topics are announced in the Schedule of Classes.  
Both grading options. May be repeated to a maximum of 6 units with different topics in different semesters. (3 hours seminar)

591A. Professional Practicum in Dietetics (3)  
Prerequisite: Admission to the Academy of Nutrition and Dietetics Accredited Dietetic Internship.  
Supervised practicum at contracted facilities to meet performance standards and qualify for the national registration examination. Credit/No Credit grading only. May be repeated to a maximum of 9 units in different semesters. Course fee may be required.

591B. Seminar in Dietetic Practice (3)  
Corequisite: FCS 591A.  
Oral and written presentations of annotated bibliographies and a clinical case study, reports of professional meetings, examinations and field trips.  
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (Seminar 1 hour).

591C. Professional Practicum in Dietetics (3)  
Prerequisite: Admission to the Academy of Nutrition and Dietetics Individualized Supervised Practice Pathway (ISPP).  
Supervised practicum at contracted facilities to meet performance standards and qualify for the national registration examination to become a Registered Dietitian. Credit/No Credit grading only. May be repeated for a maximum of 18 units in the same or different semesters.

592. Internship in Family and Consumer Sciences/Gerontology (3)  
Prerequisites: Enrollment in a graduate major in the Family and Consumer Sciences/Gerontology.  
Field experience in which student assumes a self directed responsible role in an agency, business or other community setting.  
Letter grade only (A-F). May be repeated to a maximum of 6 units. (Seminar 3 hours)

597. Independent Study (1-3)  
Prerequisite: A 400-level course in any of the Family and Consumer Sciences disciplines.  
Varied learning activities utilized to achieve competency related to Family and Consumer Sciences not offered in regular course. Written report required.  
(Projects)
600. Seminar in Leadership and Administration (3)
Prerequisite: Graduate standing.
Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Decision-making, organizational structures and evaluation concepts included.
Letter grade only (A-F). Same course as GERN 600. Not open for credit to students with credit in GERN 600.

636. Nutrition and the Media (3)
Prerequisites: Graduate standing; NUTR 331 or equivalent.
Basic skills for analyzing and communicating reliable nutrition messages for print, electronic, and visual media; translating evidenced-based research into consumer nutrition messages.
Letter grade only (A-F). (Lecture-activity 3 hours)

691. Instructional Strategies (3)
Prerequisite: Graduate standing.
A structured program on how to create and deliver college-level instruction. Includes design of assignments within a measurable assessment framework, development of teaching strategies, and appropriate use of media and other pedagogical devices.
Letter grade only (A-F). (3 hours lecture-activity)

692. Directed Project (3)
Prerequisite: FCS 697.
Will acquire experiential skills under the guidance of a faculty advisor and supervisor/preceptor at an approved project site. Will identify problems, design and assess a project or conduct research. Results will be presented in a thesis-style report. This serves as the culminating experience for the program.
Letter grade only (A-F).

696. Research Methods (3)
Prerequisite: Upper-division course in statistics.
Methodological approaches to contemporary research issues in Family and Consumer Sciences. Focuses on the design, development, and implementation of a formal research-designed project.
Letter grade only (A-F). Same course as GERN 696. Not open for credit to students with credit in GERN 696. (Seminar 3 hours).

697. Directed Research (3)
Prerequisite: Advancement to candidacy.
Students work under supervision of the thesis/directed project chair and with other committee members to complete a proposal for the thesis or directed project.
Letter grade only (A-F).

698. Thesis (3)
Prerequisite: FCS 697.
Planning, preparation and completion of a thesis related to the family and consumer sciences field.
Letter grade only (A-F).
FASHION MERCHANDISING AND DESIGN
College of Health and Human Services
Department of Family and Consumer Sciences

Option in Fashion Merchandising
(120 units)

Take all of the following courses:

- **CAFF 321 Family and Consumer Resource Management (3)**
  Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

- **ECON 300 Fundamentals of Economics (3)**
  Prerequisites: GE Foundation requirements.

- **FCS 299 Intro to Family and Consumer Sciences (1)**
  Prerequisites: None.
  Not open for credit to students with credit in FCSE 299.

- **FCS 499 Professionalism and Leadership in FCS (1)**
  Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
  Not open for credit to students with credit in FCSE 499.

- **FMD 155 Introduction to the Fashion Industry (3)**
  Prerequisites: None.

- **FMD 251 Fashion Strategies for Consumers (3)**
  Prerequisites: GE Foundation requirements.

- **FMD 253 Introductory Textiles (3)**
  Prerequisites: None.

- **FMD 255 Fashion Industry Ethics and Social Responsibility (3)**
  Prerequisites: A grade of "C" or better in FMD 155.

- **FMD 296 Computer Applications for Professionals (3)**
  Prerequisites: A grade of "C" or better in FMD 155 and Computer Proficiency Exam (CPE) passage; Fashion Design majors or Textiles minors: a grade of "C" or better in FMD 152 and 155, Computer Proficiency Exam (CPE) passage. Non-Fashion Merchandising majors or minors and non-Fashion Design majors or Textiles minors: Computer Proficiency Exam (CPE) Passage.

- **FMD 350 Fashion Forecasting (3)**
  Prerequisites: A grade of "C" or better in FMD 258 and FMD 296.

- **FMD 351 Fashion Promotion and Sales (3)**
  Prerequisites: A grade of "C" or better in FMD 155 and FMD 296.

- **FMD 353 Intermediate Textiles (3)**
  Prerequisites: A grade of "C" or better in CHEM 100, FMD 253, and FMD 296.

- **FMD 355 Fashion Buying (3)**
  Prerequisites: A grade of "C" or better in FMD 155 and FMD 258, and Computer Proficiency Exam passage.

- **FMD 451 The Fashion Customer (3)**
  Prerequisites: A grade of "C" or better in FMD 351.

- **FMD 455 International Fashion Retailing(3)**
  Prerequisites: A grade of "C" or better in FMD 351; senior standing.

- **FMD 457 Global Sourcing for the Fashion Industry (3)**
  Prerequisites: Open only to Fashion Merchandising majors, Fashion Design majors, and Textiles minors. For Fashion
Minor in Fashion Merchandising

Take the following 18 units:

- FMD 155 Introduction to the Fashion Industry (3)
  **"C" or better required. Prerequisites: None.

- FMD 258 Fashion Merchandising and Design Practicum (3)
  **"C" or better required. Prerequisite(s): A grade of "C" or better in FMD 155.

- FMD 296 Computer Applications for Professionals (3)
  **"C" or better required. Prerequisites: Fashion Merchandising majors and minors: A grade of "C" or better in FMD 155 and Computer Proficiency Exam (CPE) passage; Fashion Design majors or Textiles minors: a grade of "C" or better in FMD 152 and 155, Computer Proficiency Exam (CPE) passage. Non-Fashion Merchandising majors or minors and non-Fashion Design majors or Textiles minors: Computer Proficiency Exam (CPE) Passage.

- FMD 351 Fashion Promotion and Sales (3)
  **"C" or better required. Prerequisites: A grade of "C" or better in FMD 155 and FMD 296.

- FMD 355 Fashion Buying (3)
  Prerequisites: A grade of "C" or better in FMD 155 and FMD 258, and Computer Proficiency Exam passage.

- FMD 455 International Fashion Retailing (3)
  Prerequisites: A grade of "C" or better in FMD 351; senior standing.

It is the student's responsibility to pass the Computer Proficiency Exam as a prerequisite for the following courses:

- FMD 296 and FMD 355.

Option in Fashion Design

(120 units)

Take all of the following courses:

- CAFF 321 Family and Consumer Resource Management (3) Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

- ECON 300 Fundamentals of Economics (3) Prerequisites: GE Foundation requirements.

- FCS 299 Intro to Family and Consumer Sciences (1) Prerequisites: None. Not open for credit to students with credit in FCSE 299.

- FCS 499 Professionalism and Leadership in Family and Consumer Sciences (1) Prerequisites: FCS 299, CAFF 321, 12 units of upper division coursework in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation. Not open for credit to students with credit in FCSE 499.

- FMD 152 Quick Sketch for Fashion (1) Prerequisites: None.

- FMD 154 Fundamentals of Apparel Production (3) Prerequisites: None.

- FMD 155 Introduction to the Fashion Industry (3) Prerequisites: None.

- FMD 251 Fashion Strategies for Consumers (3) Prerequisites: GE Foundation requirements.

- FMD 253 Introductory Textiles (3) Prerequisites: None.

- FMD 256 Intermediate Apparel Production (3) Prerequisites: A grade of "C" or better in FMD 154, FMD 155 or FMD 251.

- FMD 257 Introduction to Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 152, FMD 154, and FMD 155 or FMD 251.

FMD 258 Fashion Merchandising and Design Practicum (3)
Prerequisites: A grade of "C" or better in FMD 155.

FMD 296 Computer Applications for Professionals (3)
Prerequisites: Fashion Merchandising majors and minors: A grade of "C" or better in FMD 155 and Computer Proficiency Exam (CPE) passage; Fashion Design majors or Textiles minors: a grade of "C" or better in FMD 152 and FMD 155, Computer Proficiency Exam (CPE) passage. Non-Fashion Merchandising majors or minors and non-Fashion Design majors or Textiles minors: Computer Proficiency Exam (CPE) passage.

FMD 353 Intermediate Textiles (3)
Prerequisites: A grade of "C" or better in CHEM 100, FMD 253, and FMD 296.

FMD 354 Apparel Tailoring (3)
Prerequisites: FMD 256 and FMD 257.

FMD 357 Advanced Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 253 and FMD 354.

FMD 359 Advanced Computer Applications for Fashion (2)
Prerequisites: FMD 296 and FMD 152 which must be completed with a grade of "C" or better in each. Open only to Fashion Design majors.

FMD 452 Apparel Draping (3)
Prerequisites: A grade of "C" or better in FMD 353, FMD 357 and FMD 359.

FMD 454 Experimental Apparel Design (3)
Prerequisites: A grade of "C" or better in FMD 452.

FMD 456 Historic Perspectives of Fashion (3)
Prerequisites: A grade of "C" or better in FMD 251, FMD 253 and in AH 111A or HIST 131; senior standing.

FMD 457 Global Sourcing for the Fashion Industry (3)
Prerequisites: Open only to Fashion Merchandising majors, Fashion Design majors, and Textiles minors. For Fashion Merchandising majors: A grade of "C" or better in FMD 355, ECON 300 and senior standing; for Fashion Design majors and Textiles minors: ECON 300 and Senior standing.

FMD 458 Fashion Product Development (3)
Prerequisites: A grade of "C" or better in FMD 296 and FMD 353; senior standing.

FMD 459 Computerized Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 357, FMD 359.

FMD 492M Internship in Fashion Design (3)
Prerequisites: A grade of "C" or better in FMD 452 or FMD 454. Student must be a major in Family and Consumer Sciences in the option of Fashion Design; have senior standing, a 2.5 overall GPA or a 3.0 major GPA.

Take one of the following courses:

HIST 131 Early Western Civilization (3)
Corequisite: ENGL 100.

AH 111A Foundation Art History I (3)
Prerequisites: Completion/current enrollment in GE A1 (Written Communication) requirement.

Take one of the following:

CHEM 100 Chemistry and Today's World (4)
Prerequisites: One GE Foundation course (GE categories A1, A2, A3 or B2).

OR

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

AND

MATH 109 Modeling with Algebra (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 7 or MAPB 11.

Each course on the student’s program planner must be completed with a grade of "C" or better. In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.

Minor in Textiles

Take all of the following (18 units):

FMD 155 Introduction to the Fashion Industry (3)
**"C" or better required.
Prerequisites: None

FMD 253 Introductory Textiles (3)
**"C" or better required.
Prerequisites: None.

FMD 296 Computer Applications for Professionals (3)
**"C" or better required.
Prerequisites: Fashion Merchandising majors and minors: A grade of "C" or better in FMD 155 and Computer Proficiency Exam (CPE) passage; Fashion Design majors or Textiles minors: a grade of "C" or better in FMD 152 and FMD 155, Computer Proficiency Exam (CPE) passage. Non-Fashion Merchandising majors or minors and non-Fashion Design majors or Textiles minors: Computer Proficiency Exam (CPE) passage.

FMD 353 Intermediate Textiles (3)
**"C" or better required.
Prerequisites: A grade of "C" or better in CHEM 100, FMD 253 and FMD 296.

FMD 457 Global Sourcing for the Fashion Industry (3)
Prerequisites: Open only to Fashion Merchandising majors, Fashion Design majors, and Textiles minors. For Fashion Merchandising majors: A grade of "C" or better in FMD 355, ECON 300 and senior standing; for Fashion Design majors and Textiles minors: ECON 300 and Senior standing.

FMD 458 Fashion Product Development (3)
Prerequisites: A grade of "C" or better in FMD 296 and FMD 353; senior standing.

It is the student's responsibility to adhere to all prerequisites listed below. It should be noted that these prerequisites fulfill general education requirements.

Prerequisites for FMD 353: CHEM 100 Chemistry and Today's World (4)
Prerequisites: One course from the Foundation (GE categories A1, A2, A3, and B2)
Prerequisite for FMD 457: ECON 300 Fundamentals of Economics (3)
Prerequisites: Completion of the GE Foundation requirements.

The Minor in Textiles is available to any non-Fashion Merchandising or non-Fashion Design major.
LOWER DIVISION

152. Quick Sketch for Fashion (1)
Technical drawings of garments and their design features.
Letter grade only (A-F). (3 hours activity)

154. Fundamentals of Apparel Production (3)
Analysis of the interrelationship of garment design and apparel construction. Application of theories and methods of apparel design to garment construction.
Letter grade only (A-F). Only open to these majors: Fashion Design (FCS_BA05); Fashion Merchandising (FCS_BA04); and Family and Consumer Sciences Education (FCS_BA02). (Lecture-discussion 2 hours, Laboratory 3 hours)

155. Introduction to the Fashion Industry (3)
Organization, structure and interrelationship of industries and services that comprise the business of fashion: terminology, designers, trade organizations and publications. Professional opportunities explored.
Letter grade only (A-F). (Lecture-discussion 3 hours)

251. Fashion Strategies for Consumers (3)
Prerequisites: GE Foundation requirements.
Apparel selection for professional and personal needs based on design, culture and fashion. Wardrobe analysis and coordination; consumer clothing guidelines.
(Lecture-discussion 3 hours)

252. Analysis, Evaluation and Comparison of Ready-to-Wear (3)
Analysis of the quality of materials, design and construction in ready-to-wear garments and accessories; comparison of processes involved in manufacturing, concepts of sizing, principles of fit; aids in buying and selling.
(Lecture-discussion 3 hours)

253. Introductory Textiles (3)
A consumer-oriented approach to textile selection, use, and care. Provides a basis for a logical, consistent rationale in choosing apparel and interior textiles. Explores careers within the international textile industry.
Letter grade only (A-F). (Lecture-discussion 3 hours)

255. Fashion Industry Ethics and Social Responsibility (3)
Prerequisite: A grade of "C" or better in FMD 155.
Ethical issues within the fashion industry. Focus will be on decision-making processes which lead to outcomes that have ethical implications as well as potential consequences or benefits.
Letter grades only (A-F).

256. Intermediate Apparel Production (3)
Prerequisites: A grade of "C" or better in FMD 154, FMD 155 or FMD 251.
Continuation of construction techniques used in apparel production with concentration on current fabrics and techniques used in contemporary ready-to-wear.
(1 hour discussion, 6 hours laboratory).

257. Introduction to Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 152, FMD 154, and FMD 155 or FMD 251.
Introduction to the design concept as it applies to flat pattern manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

258. Fashion Merchandising and Design Practicum (3)
Prerequisites: A grade of "C" or better in FMD 155.
Structured fashion retail work/learning experience designed to develop competencies in retail management or related fields. Students must obtain fashion retail sales position by first class period.
Letter grade only (A-F). (Lecture-activity 3 hours)

296. Computer Applications for Professionals (3)
Prerequisites: Fashion Merchandising majors and minors: A grade of "C" or better in FMD 155, Computer Proficiency Exam (CPE) passage; Fashion Design majors or Textiles Minors: a grade of "C" or better in FMD 152 and FMD 155, Computer Proficiency Exam (CPE) passage. Non-Fashion Merchandising majors or minors and non-Fashion Design majors or Textiles minors: Computer Proficiency Exam (CPE) passage.
Use of computer paint-style, illustration/processing software and scanners to develop proficiency in drawing and designing for the workplace. Work with clip art, make technical drawings, storyboards, and color/fabric cards.
Letter grade only (A-F). (1 hour lecture-discussion, 4 hours activity)
Not open to students with credit in FCSE 296

UPPER DIVISION

350. Fashion Forecasting (3)
Prerequisites: A grade of "C" or better in FMD 258 and FMD 296.
Introduces the forecasting disciplines used in the fashion industries which support both short-term, tactical decisions and long-term strategic ones. Covers the process of gathering data, then organizing, analyzing, and synthesizing them into actionable forecasts.
Letter grade only (A-F).

351. Fashion Promotion and Sales (3)
Prerequisites: A grade of "C" or better in FMD 155 and FMD 296.
Concepts, practices and procedures related to fashion promotion. Includes planning, directing and evaluating promotion activities such as visual merchandising, special events, publicity, and personal and non-personal selling.
(Discussion 3 hours)

353. Intermediate Textiles (3)
Prerequisites: A grade of "C" or better in CHEM 100, FMD 253, and FMD 296.
Interrelationship of fiber, yarn, structure, fabric geometry and finishing treatments to the textile's appearance, comfort, durability and maintenance.
Letter grade only (A-F). (Lecture-discussion 2 hours, Lab 3 hours)

354. Apparel Tailoring (3)
Prerequisites: A grade of "C" or better in FMD 256 and FMD 257.
Analysis of traditional and contemporary processes in the design and production of tailored apparel. Application of apparel design and production process for couture, ready-to-wear, and individually produced garments.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

355. Fashion Buying (3)
Prerequisites: A grade of "C" or better in FMD 155 and FMD 258, and Computer Proficiency Exam passage.
Concepts, practices and procedures as well as calculations and computer applications as they relate to apparel retail profit. Includes inventory methods, operating statements and purchase planning procedures.
Letter grade only (A-F). (3 hours lecture activity)
356. Fashion Retail Management (3)
Prerequisites: A grade of "C" or better in FMD 355.
Explores current retail environments, problem-solving, and decision-making strategies for retailing apparel and textiles products. Covers the importance of communication skills, human resource management, and other concepts impacting retail management such as target market analysis and assortment plans.
Letter grade only (A-F). (3 hours seminar)

357. Advanced Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 253 and FMD 354.
Exploration of the total design concept as it applies to pattern manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

359. Advanced Computer Applications for Fashion (2)
Prerequisites: FMD 296 and FMD 152 which must be completed with a grade of "C" or better in each. Open only to Fashion Design majors.
Students refine their proficiency in drawing and designing apparel garments and fashion illustrations using computer paint-style and illustration software.
Letter grade only (A-F). (6 hours activity)

450. Cultural Perspectives of Dress (3)
Prerequisites: GE Foundation requirements; a grade of "C" or better in ANTH 120 or SOC 100 or SOC 142 and upper-division standing.
Factors influencing design of textiles and apparel, techniques of textile and apparel production, and human behavior in the selection of dress in societies and cultural groups. Emphasis on symbolism of textiles and clothing designs as a communicative device for expressing social and cultural values. Impact of other cultures on western dress and impact of western dress on other apparel systems.
May be used to satisfy the GWAR. (Seminar 3 hours)

451. The Fashion Customer (3)
Prerequisites: A grade of "C" or better in FMD 351.
Overview of theories on behavior of fashion customers and impact on fashion marketing strategies. Practical application on how to identify specific needs of fashion customers. Examination of impact of marketplace on fashion customers and of laws which protect them.
Letter grade only (A-F). (3 hours lecture discussion)

452. Apparel Draping (3)
Prerequisites: A grade of "C" or better in FMD 353, FMD 357, and FMD 359.
Exploration of the total design concept as it applies to fabric manipulation.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

454. Experimental Apparel Design (3)
Prerequisites: A grade of "C" or better in FMD 452.
Exploration of clothing design and production through the experimental process. Individual investigation of the creative design process; evaluation of equipment; experiences with a variety of fabrics and techniques.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

455. International Fashion Retailing (3)
Prerequisites: A grade of "C" or better in FMD 351; senior standing.
Application of merchandising concepts for promotion and selling of fashion goods and apparel in global retail organizations.
Letter grade only (A-F). (Lecture/Discussion 3 hours)

456. Historic Perspectives of Fashion (3)
Prerequisites: A grade of "C" or better in FMD 251, FMD 253, and in AH 111A or HIST 131; senior standing.
Social, political, economic, geographic and religious forces that affect styles of fashion from antiquity to the present day. Emphasis is on the relationship of historic styles to current fashion. Primary focus is on the fashion influences of the western world.
Letter grade only (A-F). (Seminar 3 hours)

457. Global Sourcing for the Fashion Industry (3)
Prerequisites: Open only to Fashion Merchandising majors, Fashion Design majors, and Textiles minors. For Fashion Merchandising majors: A grade of "C" or better in FMD 355, ECON 300 and senior standing; for Fashion Design majors and Textiles minors: ECON 300 and Senior standing.
Provides a framework whereby students critically examine the global textiles and apparel industry with emphasis on acquiring basic concepts of global trade. Current processes of globalization are analyzed including the importance of outsourcing.
Letter grade only (A-F). (Lecture-discussion 3 hours)

458. Fashion Product Development (3)
Prerequisites: A grade of "C" or better in FMD 296 and FMD 353; senior standing.
The process of designing and engineering fashion products to be serviceable, producible, salable and profitable for various consumer market segments.
(Discussion 3 hours) Letter grade only (A-F).

459. Computerized Apparel Flat Pattern (3)
Prerequisites: A grade of "C" or better in FMD 357, FMD 359.
Use of computer aided design software for apparel pattern development.
Letter grade only (A-F). Not open for credit to students with credit in FMD 352. (Laboratory 6 hours)

492E. Internship in Fashion Merchandising (3)
Prerequisites: A grade of "C" or better in FMD 451 and FMD 455 or FMD 457. Student must be a major in Family and Consumer Sciences in the option of Fashion Merchandising; have senior standing, a 2.5 overall GPA or a 3.0 major GPA.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours)

492M. Internship in Fashion Design (3)
Prerequisites: A grade of "C" or better in FMD 452 or FMD 454.
Student must be a major in Family and Consumer Sciences in the option of Fashion Design; have senior standing, a 2.5 overall GPA or a 3.0 major GPA.
May be repeated for 6 units maximum. Letter grade only (A-F). (Seminar 3 hours)
FILM AND ELECTRONIC ARTS
College of the Arts

Department Chair: Jerry Mosher
Department Office: University Telecommunications Center (UTC), Room 104
Telephone: (562) 985-5404
Website: web.csulb.edu/depts/film/
Faculty: Jack Anderson, Tom Blomquist, Sharyn Blumenthal, Kent Hayward, Jerry Mosher, Micheal C. Pounds (Emeritus), Jose Sanchez-H (Emeritus), Helen Hood Scheer.
Administrative Coordinator: Donna Thomas
Academic Advisor: Lorenzo Gutierrez-Jarquin
Instructional Support Technician: Steve Hubbert
Information Technology Consultant: Robert Rhyu

Career Possibilities
Producer • Director • Screenwriter • Cinematographer
• Film Editor • Sound Designer • Studio Engineer •
Production Designer • Visual Effects Designer • Digital
Animator • Production Supervisor • Casting Supervisor •
Media Educator • Media Archivist • Media Publicist •
Production Equipment Specialist (Some of these, and
other careers, require additional education or experience.
For more information, see www.careers.csulb.edu.)

Introduction
Film and Electronic Arts is an innovative program that
emphasizes both theory and practice. Focusing upon
the integration of media and the arts, as well as upon
the impact of technology on our culture, the curriculum
is designed to provide technical skills while developing a
foundation in the arts and the humanities.
The faculty provides a diversity of expertise and
interests which cross traditional media lines while
integrating film, audio, and video, and digital production
modes. Theory and aesthetics are taught as an integral
part of the development of production skills.

Admission
Incoming freshmen are admitted as “Pre-Film and
Electronic Arts” (i.e., Pre-FEA Theory and Practice of
Cinema or Pre-FEA Narrative Production). There is no
portfolio requirement for incoming freshman applicants.
During their first few semesters at CSULB, students will
complete lower-division General Education requirements
as well as lower-division FEA courses. Continuation in the
major is subject to meeting the Major-Specific Declaration
Requirements (see below) at CSULB that indicate the
student’s ability to succeed and complete the major.

For more information regarding the University
admissions process for incoming freshmen, please
visit: http://www.csulb.edu/depts/enrollment/admissions/
freshmen.html

Current CSULB students
To be considered for admission to one of the options
in Film and Electronic Arts, applicants must complete the
following Major-Specific Declaration Requirements:
• Minimum Cumulative GPA: 2.75
• Major preparation courses or articulated equivalents
(grade of C or better required):
  • ART 110 Introduction to the Visual Arts; or AH 111B
    Foundation Art History II
  • FEA 205 Film History
  • FEA 206 History of Broadcasting
  • FEA 207 Introduction to Screenwriting
  • FEA 299 Media Aesthetics
• Required General Education Foundation courses
(grade of C or better required):
  • Written Communication (A1)
  • Oral Communication (A2)
  • Critical Thinking (A3)
  • Mathematics (B2)

Portfolio requirements
• Applicants to the Option in Narrative Production must
  also submit a portfolio that is approved by a department faculty
  review committee. Contact department for details of portfolio
  submission. Admission to the Option in Narrative Production is
  limited.
• Applicants to the Option in Theory and Practice of
  Cinema are not required to submit a portfolio for review.

Incoming transfer students
Incoming transfer students must apply to the University
during the initial Fall filing period for the following Fall semester,
or August for the following Spring semester. Applicants must
indicate their choice of FEA major option on the application
(i.e., FEA Theory and Practice of Cinema or FEA Narrative
Production). In addition to the University transfer admissions
requirements, applicants must complete the following Major-
Specific Admissions Requirements to be considered for
admission to the major:
• Minimum Cumulative GPA: 2.75
• Required major preparation courses (grade of C or
  better required):
  • ART 110 - Introduction to the Visual Arts; or
  • AH 111B - Foundation Art History II; or articulated
    equivalent.
  • A minimum of two of the following (effective Fall 2017
    admissions):
    • FEA 205 - Film History
    • FEA 206 - History of Broadcasting
    • FEA 207 - Introduction to Screenwriting
    • FEA 299 - Media Aesthetics
  * Transfer students who do not complete FEA 205, FEA 206,
    FEA 207, or FEA 299 must do so during their first semester at
    CSULB.
 Bachelor of Arts in Film and Electronic Arts

The Bachelor of Arts degree in Film and Electronic Arts has two major options: Theory and Practice of Cinema; or Narrative Production. In addition, the department offers a minor in Film and Electronic Arts.

Option in Theory and Practice of Cinema (120 units)

54 units required for the major.

Students are admitted to the Option in Theory and Practice of Cinema after completing the Major-Specific Admissions Requirements. Note: The 54 units required for the major includes the following 3-unit preparation course not included under the major requirements below: ART 110 – Introduction to the Visual Arts; or AH 111B Foundation Art History II; or articulated equivalent (grade of C or better required).

Requirements

1. Lower Division Core

   Take the following courses:
   
   FEA 205 Film History (3)  
   Prerequisite: FEA Pre-major, major or minor status.
   
   FEA 206 History of Broadcasting (3)  
   Prerequisite: FEA Pre-major, major or minor status.
   
   FEA 207 Introduction to Screenwriting (3)  
   Prerequisites: FEA Pre-major, major or minor status; completion of GE foundation courses; sophomore standing.
   
   FEA 299 Media Aesthetics (3)  
   Prerequisites: FEA Pre-major, major or minor status.

2. Upper Division Core

   Take the following courses:
   
   FEA 302 Film Theory I: Classical (3)  
   Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor
   
   FEA 401 Film Theory II: Contemporary (3)  
   Prerequisites: FEA 205 and FEA 302 or consent of instructor.

3. Culture and Media

   Take three of the following:
   
   FEA 310, FEA 315, FEA 316, FEA 317, FEA 318, FEA 380, FEA 394, FEA 450, FEA 486

4. International Cinema

   Take three of the following:
   
   FEA 392A, FEA 392B, FEA 392C, FEA 392D, FEA 460/SPAN 428, FEA 462, FEA 464; only one of the following may be used to meet this requirement: FEA 346/RGR 346, FEA 454/ITAL 454, FEA 456/FREN 456, FEA 457/GERM 480, FEA 458/RUSS 428

5. Tracks of Specialization

   Select one of the following 15-unit tracks. Courses in any track may be applied as electives in other tracks. See an advisor to determine the most relevant electives for your track.

   A. Critical Practice

   Take the following course:
   
   FEA 322 Diverse Media: Writing and Production (3)  
   Prerequisites: FEA Major or minor status or consent of instructor.
   
   Take two of the following courses:
   
   FEA 318 Theory of Fiction and Film (3)  
   Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
   
   FEA 394 American Film Genres (3)  
   Prerequisites: FEA 205 and FEA 302 (FEA 302 may be taken concurrently) or consent of instructor.
   
   FEA 410 Film Criticism Practicum (3)  
   Prerequisites: FEA 205 and FEA 302 or consent of instructor.

   Take one of the following courses:
   
   FEA 315 Theory of New Media (3)  
   Prerequisites: FEA 205 and FEA 206, or consent of instructor.

   FEA 486 Alternative Media (3)  
   Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing. A score of 11 or higher on the GWAR Placement Examination, or completion of the necessary portfolio course required as a prerequisite for GWAR Writing Intensive Capstones.
   
   Take three additional units of FEA elective

   B. Creative Nonfiction Production

   Take the following courses:
   
   FEA 380 Documentary History and Theory (3)  
   Prerequisites: FEA 206 and FEA 302 (FEA 302 may be taken concurrently) or consent of instructor.
   
   FEA 381 Directing the Documentary (3)  
   Prerequisite/Corequisite: FEA 380.

   FEA 382 Documentary Production I (3)  
   Prerequisites: FEA 381 or consent of instructor.

   FEA 383 Documentary Production II (3)  
   Prerequisites: FEA 382 or consent of instructor.

   FEA 415 Media Editing (3)  
   Prerequisite: Admission to the Option in Narrative Production or consent of instructor.

   C. Screenwriting

   Take the following courses:
   
   FEA 304. Writing the Short Script (3)  
   Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.

   FEA 318 Theory of Fiction and Film (3)  
   Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.

   FEA 404 (Fall) Advanced Scriptwriting for Film and Electronic Media (3)  
   Prerequisites: FEA 304 or consent of instructor.

   FEA 404 (Spring) Advanced Scriptwriting for Film and
Electronic Media (3)
Prerequisites: FEA 304 or consent of instructor.

Take one of the following courses:
FEA 365 Introduction to Game Writing and Design (3)
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
FEA 405 Comedy Writing (3)
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
FEA 408 Writing the Screen Adaptation (3)
Prerequisite(s): FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.

D. Editing
Take the following courses:
FEA 309 Production I: Cinematography (3)
Prerequisite: Admission to Option in Narrative Production or consent of instructor.
FEA 415 Media Editing (3)
Prerequisite: Admission to the Option in Narrative Production or consent of instructor.
FEA 416 Advanced Media Editing (3)
Prerequisite: FEA 415.

Take two courses from the following:
FEA 307, FEA 337, FEA 360, FEA 418

E. Audio
Take the following courses:
FEA 307 Audio Production (3)
Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor.
FEA 320 Sound Design (3)
Prerequisite: FEA Major or minor status, FEA 307.
FEA 337 Digital Arts Production (3)
Prerequisites: FEA Major or consent of instructor.

Take one course from the following:
FEA 322, FEA 338, FEA 339, FEA 360
Take three additional units of FEA elective

F. Broadcast Production
Take the following courses:
FEA 338 Television Studio Production (3)
Prerequisites: FEA Major or minor status with "C" or better or consent of instructor.
FEA 360 Independent Television Field Production (3)
Prerequisites: FEA 338 or consent of Instructor
FEA 438 Television Studio Directing (3)
Prerequisite: FEA 338 or consent of instructor

Take one course from the following:
FEA 307, FEA 322, FEA 327, FEA 339, FEA 375, FEA 448
Take three additional units of FEA elective

G. Production Management
Take the following courses:
FEA 327 Production Management I (3)
Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor.
FEA 427 Production Management II (3)
Prerequisite: FEA 327.

Take two of the following courses:
FEA 339 Commercials for Electronic Media (3)
Prerequisites: Junior/Senior standing or consent of instructor.
FEA 360 Independent Television Field Production (3)
Prerequisites: FEA 338 or consent of Instructor

H. Digital Arts
Take the following courses:
FEA 315 Theory of New Media (3)
Prerequisites: FEA 205 and 206, or consent of instructor.
FEA 337 Digital Arts Production (3)
Prerequisites: FEA Major or consent of instructor.
FEA 365 Introduction to Game Writing and Design (3)
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
FEA 437 3D Computer Animation (3)
Prerequisites: FEA Major status, FEA 337, or consent of instructor.

Take three additional units of FEA electives

I. Production Design
Take the following courses:
FEA 303, Introduction to Production Design for Motion Pictures (3)
Prerequisite: None
FEA 331 Production Design Practicum (3)
Prerequisite: FEA Major or minor status; FEA 330 or consent of instructor.
FEA 337 Digital Arts Production (3)
Prerequisite: FEA Major status; or consent of instructor.
FEA 437 3D Computer Animation (3)
Prerequisite: FEA Major status; FEA 337 or consent of instructor.

Take three additional units of FEA electives

Option in Narrative Production
(120 units)
54 units required for the major.
Students may apply to the Option in Narrative Production after completing the Major-Specific Admissions Requirements. Note: The 54 units required for the major includes the following 3-unit preparation course not included under the major requirements below: ART 110 – Introduction to the Visual Arts; or AH 111B Foundation Art History II; or articulated equivalent (grade of C or better required).

Admission to the option is for Fall semester only. To be eligible for admission to the option, students must have completed a minimum of 56 units, but no more than 90 units, before the Fall semester of admission. Students apply for admission to the Narrative Production option by submitting a portfolio to the department early in the preceding Spring semester. For portfolio requirements and instructions, see the Department of Film and Electronic Arts website: http://web.csulb.edu/film.

Although a transfer student may apply to the FEA Narrative Production option prior to learning whether or not they have been admitted to the university, they cannot be accepted into the option until they have been officially admitted to the university. The Film and Electronic Arts Department is not involved in the university admissions process. If an applicant is admitted to the university but does not receive a favorable review of their portfolio, they will be offered admission to the FEA Option in Theory and Practice of Cinema.

Students admitted to the Option in Narrative Production are required to maintain a minimum GPA of 2.5 in all major-related course work to remain in the option. Students admitted to the
option are also required to abide by the rules and regulations specified in the department's Policies and Procedures Handbook, which can be downloaded from the department website.

Requirements

1. Lower Division Core
   Take the following courses:
   - FEA 205 Film History (3)
     Prerequisites: FEA Pre-major, major or minor status.
   - FEA 206 History of Broadcasting (3)
     Prerequisites: FEA Pre-major, major or minor status.
   - FEA 207 Introduction to Screenwriting (3)
     Prerequisite: FEA pre-major, major or minor status; completion of GE courses; sophomore standing.
   - FEA 299 Media Aesthetics (3)
     Prerequisites: FEA Pre-major, major or minor status.

2. Upper Division Core
   Take the following course:
   - FEA 302 Film Theory I: Classical (3) (May be taken in junior year).
     Prerequisites: FEA Major or minor status, FEA 209 with "C" or better or consent of instructor

   Take one international cinema course from the following:

   Take two of the following courses:
   - FEA 327 Production Management I (3)
     Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor
   - FEA 330 Introduction to Production Design for Motion Pictures (3)
     Prerequisites: None
   - FEA 331 Production Design Practicum (3)
     Prerequisites: FEA Major or minor status; FEA 330 or consent of instructor
   - FEA 416 Advanced Media Editing (3)
     Prerequisites: FEA 415 or consent of instructor.
   - FEA 418 Color Correction (3)
     Prerequisites: FEA 415 or consent of instructor.
   - FEA 427 Production Management II (3)
     Prerequisite: FEA 327

   Take the following courses in the following sequence:
   1. Fall Semester of Junior Year:
      - FEA 309 Production I: Cinematography (3)
        Prerequisite: Admission to Option in Narrative Production or consent of instructor.
      - FEA 344 Directing (3)
        Prerequisite: Admission to the Option in Narrative Production.
      - FEA 415 Media Editing (3)
        Prerequisites: Admission to the Option in Narrative Production or consent of instructor.
   2. Spring Semester of Junior Year:
      - FEA 304 Writing the Short Script (3)
        Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
      - FEA 307 Audio Production (3)
        Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor.

   FEA 328 Lighting (3)
   Prerequisites: FEA 309. Priority enrollment given to students in Narrative Production Option.

   FEA 336 Production II: Film Production (3)
   Prerequisite: Admission to Option in Narrative Production; Corequisite: FEA 328.

3. At the end of their junior year, students must select a two-semester track of specialization for their senior year.

A. Production and Directing
   Take the following courses in the Fall:
   - FEA 340 Production III: Advanced Production A (3)
     Prerequisites: FEA 336 and approved enrollment in Advanced Narrative Production Track.
   - FEA 342 Production IV: Advanced Production B (3)
     Prerequisites: FEA 340 and approved enrollment in Advanced Narrative Production Track.

B. Cinematography
   Take the following courses:
   - FEA 341 Advanced Cinematography I (3)
     Prerequisites: FEA 328 and FEA 336 and approved enrollment in Advanced Cinematography Track.
   - FEA 343 Advanced Cinematography II (3)
     Prerequisites: FEA 341 and approved enrollment in Advanced Cinematography Track.

Minor in Film and Electronic Arts

Total Units Required: 21 units.

Students are admitted to the minor after having completed a minimum of 30 units of college-level course work including all 12 units of General Education Foundation courses with a cumulative GPA of 2.5 or higher.

Requirements

1. Complete the following course with a "C" or better:
   - FEA 299 Media Aesthetics (3)
     Prerequisite: FEA Pre-major, major or minor status.

2. Complete all the following courses:
   - FEA 205 Film History (3)
     Prerequisite: FEA Pre-major, major or minor status.
   - FEA 206 History of Broadcasting (3)
     Prerequisite: FEA Pre-major, major or minor status.
   - FEA 310 Film and Culture (3)
     Prerequisite: GE Foundation requirement, upper-division standing.

3. Complete 9 units of electives from the following:
   - FEA 207, FEA 227, FEA 302, FEA 304, FEA 307, FEA 314, FEA 316, FEA 318, FEA 320, FEA 322, FEA 327, FEA 330, FEA 331, FEA 338, FEA 360, FEA 375, FEA 380, FEA 392, FEA 408, FEA 427, FEA 460, FEA 462, FEA 486.

   Students should consult the FEA Academic Advisor regarding ways by which elective units can be grouped into specialized tracks. For example, a basic management skills set might include FEA 327, FEA 375 and FEA 427; a basic sound mixing skill set would include FEA 307 and FEA 320.
## Courses (FEA)

### LOWER DIVISION

**205. Film History (3)**
Prerequisite: FEA Pre-major, major or minor status. Historical development of cinema. Letter grade only (A-F).

**206. History of Broadcasting (3)**
Prerequisites: FEA Pre-major, major or minor status. Historical development of broadcasting media and technology, with examination of interrelationships between forms, industry, social trends, and culture. Not open for credit to students with credit in FEA 300. Letter grade only (A-F).

**207 (formerly 303). Introduction to Screenwriting (3)**
Prerequisites: FEA pre-major, major or minor status; completion of GE foundation courses; sophomore standing. Introduction to formal elements of writing the short script. Letter grade only (A-F). Not open for credit to students with credit in FEA 303.

**227. History of Animation (3)**
Prerequisite(s): Completion of GE A1 (Written Communication) requirement; sophomore standing. Historical, theoretical and aesthetic developments of animation since its beginnings across cultures and within global contexts with consideration of cultural, social, political and technological influences. Same course as ART 227. Not open for credit to students with credit in ART 227. Letter grade only (A-F).

**299. Media Aesthetics (3)**
Prerequisites: FEA Pre-major, major or minor status. Study of aesthetic principle governing media productions. Emphasis on relationships between various art forms and development of critical vocabulary. Letter grade only (A-F). Not open for credit to students with credit in FEA 399.

### UPPER DIVISION

**302. Film Theory I: Classical (3)**
Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor. Introduction to classical and critical theories of film analysis including Formalism, Realism, Classical Hollywood Cinema, the Auteur Theory, Art Cinema, Genre Studies, and Structuralism. Letter grade only (A-F).

**304. Writing the Short Script (3)**
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor. Scriptwriting with emphasis on adaptation and dramatic fiction. Letter grade only (A-F).

**307. Audio Production (3)**
Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor. Basic principles and techniques of audio production. Letter grade only (A-F). (6 hours activity)

**309. Production I: Cinematography (3)**
Prerequisite: Admission to Option in Narrative Production or consent of instructor. Basic principles of cinematography and lighting. Letter grade only (A-F). Course fee may be required. (6 hours activity)

**310. Film and Culture (3)**
Prerequisites: GE Foundation requirement, upper-division standing. Examines how film impacts culture, using a variety of viewpoints from contemporary critical and cultural studies.

**312. Television Programming Symposium (3)**
Discussion and analysis of creative problems in television industry, current local and network programs. Interviews with visiting executives, producers, directors, writers, performers and technicians. May be repeated to a maximum of 6 units, only 3 units may be used as credit toward major.

**314. Theatrical Film Symposium (3)**
Lectures and discussions of creative problems in motion picture industry; current films; interviews with visiting producers, directors, writers, performers and technicians.

**315. Theory of New Media (3)**
Prerequisites: FEA 205 and FEA 206, or consent of instructor. Examines the artistic and cultural impact of digital media technologies. Letter grade only (A-F).

**316. Mass Media and Popular Culture (3)**
Prerequisite: GE Foundation requirement. Theory and functions of mass media in America. Enduring issues and unresolved problems of media. Impact of mass culture on a mass-mediated society.

**317. Women in the History of U.S. Film (3)**
History of women as they are represented, presented as images, or constructed in the development of U.S. film. Theory and analysis of film from a feminist perspective. Same course as WGS 316. Not open for credit to students with credit in W/ST 316 or WGS 316.

**318. Theory of Fiction and Film (3)**
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing. Examination of narrative methods and conventions of American and British fiction and methods and conventions of film; consideration of relationships between artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film. Same course as ENGL 318. Not open for credit to students with credit in ENGL 318.

**320. Sound Design (3)**
Prerequisite: FEA Major or minor status, FEA 307. Examination of the basic aesthetic and technical principles of sound design for film production. Letter grade only (A-F). (6 hours activity)

**322. Diverse Media: Writing and Production (3)**
Prerequisites: FEA Major or minor status or consent of instructor. Workshop in professional writing and production of film, television, theatre, and diverse media. Working as a group, students develop and exhibit creative works. Provides a professional production experience covering various genres and formats. Not open for credit to students with credit in FEA 403. Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 6 units in different semesters.
325. Audio Activity (2)
Prerequisites: Major status, FEA 299 with "C" or better or consent of instructor.
Group and individual experience in audio production. Specific assignments determined in consultation with instructor.
Credit/No Credit grading only. May be repeated to a maximum of 4 units in different semesters. (4 hours activity)

327. Production Management I (3)
Prerequisites: FEA Major or minor status, FEA 299 with "C" or better or consent of instructor.
Examines the process of producing independent feature-length films, focusing on the producer's role from development stage to beginning level of pre-production. Topics include copyright and contract law, business structures, and script analysis and breakdown.
Letter grade only (A-F).

328. Lighting (3)
Prerequisites: FEA 309. Priority enrollment given to students in Narrative Production Option.
Examination of the basic aesthetic and technical principles of lighting. Students will explore various creative lighting styles and techniques through lectures and practical exercises.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

330. Introduction to Production Design for Motion Pictures (3)
Prerequisite(s): None
Examines the history, theory, and practice of motion picture production design.
Letter grade only (A-F).

331. Production Design Practicum (3)
Prerequisite(s): FEA Major or minor status; FEA 330; or consent of instructor.
Introduction to the practice of motion picture production design and visual storytelling, for students of diverse artistic abilities. Includes breaking down a script, designing the look and visual continuity of a film, and producing plans and models.
Letter grade only (A-F).

335. University Television Activity (2)
Prerequisites: Consent of instructor.
Experience in administration and production of video projects at the University Television facility.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (4 hours activity)

336. Production II: Film Production (3)
Prerequisite: Admission to Option in Narrative Production;
Corequisite: FEA 328
Preparation for the advanced level of film production through research and exercises designed to develop essential filmmaking skills.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

337. Digital Arts Production (3)
Prerequisite: FEA Major or consent of instructor
Techniques and concepts involved in production of visual effects, computer animation, and interactive media. Through screenings, field trips and hands-on production, students explore art and science of digital graphics, 2D-compositing, and 3D-animation. Culminates in development of digital elements for student production.
Letter grade only (A-F). May not be repeated. (6 hours activity)

338. Television Studio Production (3)
Prerequisites: FEA Major or minor status and FEA 299 with "C" or better or consent of instructor.
Introduction to principles, techniques and technologies of television studio production, with emphasis on multiple camera approaches to interview, sitcom, music performance and public affairs programs.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

339. Commercials for Electronic Media (3)
Prerequisites: Junior/Senior standing or consent of instructor.
Experience of creating, writing and producing commercials that entertain, demonstrate and motivate the target audience.
Letter grade only (A-F).

340. Production III: Advanced Production A (3)
Prerequisites: FEA 336 and approved enrollment in Advanced Narrative Production Track.
Experience in group production of original films. Emphasis is on narrative short projects. Students are required to collaborate with advanced cinematography students in FEA 341.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

341. Advanced Cinematography I (3)
Prerequisites: FEA 328 and FEA 336 and approved enrollment in Advanced Cinematography Track.
Designed to further student's understanding of art and craft of cinematography, especially lighting, exposure, composition, lenses, format, filters, and work flows. Students are required to shoot and crew on advanced narrative projects produced in FEA 340.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

342. Production IV: Advanced Production B (3)
Prerequisites: FEA 340 and approved enrollment in Advanced Narrative Production Track.
Experience in post production and completion of original films resulting in public exhibition. Emphasis is on film editing.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

343. Advanced Cinematography II (3)
Prerequisites: FEA 341 and approved enrollment in Advanced Cinematography Track.
Designed to further student's understanding of art and craft of cinematography. Emphasis is on individual research into specific issues of film making and production of short film projects in support of research.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

344. Directing (3)
Prerequisite: Admission to the Option in Narrative Production.
Theory and practical experience in directing of narrative film. Emphasis on directing actors in fictional work.
Letter grade only (A-F).
346. The European Cinema of Communism, Fascism and Resistance (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper division standing.
Focuses on European cinema of the twentieth century as a manifestation of totalitarian and ideological movements preceding, in-between and following the two world wars. The ensuing and ongoing resistance movements will also be examined.
Same course as HIST 346, RGR 346. Not open for credit to students with credit in HIST 346, RGR 364. (2 hrs sem, 2 hrs activity)

350. Hollywood Does Rome (3)
Prerequisites: CLSC 100 or CLSC 101 or CLSC 202 or consent of instructor.
Investigation of the filmmaker’s motives and the methods they have used to portray the ancient Romans from the beginnings of cinema to the present. Topics include ‘imagining’ the past, the ‘power’ of the image, community and society, cultural imperialism, film theory, the ‘language’ of myth, and reception theory.
Same course as CLSC 350. Not open for credit to students with credit in CLSC 350.

355. Audio-Video-Film Activity (1)
Prerequisites: Major status, FEA 299 with “C” or better or consent of instructor.
Group and individual experience in areas of audio-video-film production, and broadcast education. Specific assignments determined in consultation with instructor.
Credit/No Credit grading only. May be repeated to a maximum of 2 units. (2 hours activity)

360. Independent Television Field Production (3)
Prerequisites: FEA 338 or consent of Instructor
Introduction to the creative and managerial requirements of independent television program production. Direct experience with field production for an independent television production company that supplies ongoing cable programming.
Letter grade only (A-F). (6 hours activity). May be repeated to a maximum of 6 units.

Prerequisites: FEA 206 or consent of instructor.
Comparative analysis of internal and external electronic media systems with emphasis on their motives, origins, technologies, and programming. Consideration of political, economic, regulatory constraints, and potential impact of new technologies.
Letter grade only (A-F).

364. Global Electronic Media Communication (3)
Prerequisites: FEA 206 or consent of instructor.
Study of international electronic media systems targeted toward other nations with emphasis on their cultural, economic, and political influences. Focus on the impact of new technologies on cross border communication.
Letter grade only (A-F).

365. Introduction to Game Writing and Design (3)
Prerequisite(s): FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
Creation of analog and digital games, with critical examination of elements that make a game successful. Topics include interactive storytelling, game mechanics and dynamics, and play testing.
Letter grade only (A-F).

368. The European Cinema of the Ancient Romans (3)
Prerequisites: GE Foundation requirements and upper division standing.
Investigation of the filmmaker’s motives and the methods they have used to portray the ancient Romans from the beginnings of cinema to the present. Topics include ‘imagining’ the past, the ‘power’ of the image, community and society, cultural imperialism, film theory, the ‘language’ of myth, and reception theory.
Same course as CLSC 350. Not open for credit to students with credit in CLSC 350.

370. Producing and the Business of Television (3)
Prerequisites: GE Foundation requirements and upper division standing.
Examines the TV producer’s role as business leader as well as creator of programming concepts. Topics include program development and positioning, sales presentations, ratings, entertainment law, rights and licensing, negotiating, agents, and labor issues.
Letter grade only (A-F).

380. Documentary History and Theory (3)
Prerequisites: FEA 206 and FEA 302 (FEA 302 may be taken concurrently) or consent of instructor.
Critical study of history, methods, and aesthetics of documentary production. Focus on problems of representation, objectivity, and personal style.
Letter grade only (A-F).

381. Directing the Documentary (3)
Prerequisite/Corequisite: FEA 380.
Exploration of theory and practice of documentary filmmaking. Emphasis on relationship between documentary and fiction film. Production requirement will include shooting and editing a 5-10 minute documentary.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

382. Documentary Production I (3)
Prerequisites: FEA 381 or consent of instructor.
Theory and practice researching, structuring, writing, directing and producing a comprehensive documentary (to be completed in FEA 383) with equal emphasis on the interview and visual storytelling.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

383. Documentary Production II (3)
Prerequisites: FEA 382 or consent of instructor.
Theory and practice producing and editing a comprehensive documentary with special emphasis on narration, sound effects, and music. This will entail the completion through post-production of projects begun in FEA 382.
Letter grade only. Course fee may be required. (6 hours activity)

392. Selected Topics in International Cinema (3)
Prerequisites: FEA 205 and FEA 302 (FEA 302 may be taken concurrently) or consent of instructor.
Variable topics explore domain of international cinema.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.
A. European Cinema Before 1960
B. European Cinema After 1960
C. Latin American Cinema
D. Japanese Cinema

394. American Film Genres (3)
Prerequisites: FEA 205 and FEA 302 (FEA 302 may be taken concurrently) or consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters.
401./501. Film Theory II: Contemporary (3)
Prerequisites: FEA 205 and FEA 302 or consent of instructor.
Study of contemporary theoretical models of film analysis and evaluation. Topics include: Spectatorship, Post-Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Postcolonialism, Queer Theory, Postmodernism, and Reception Studies.
Letter grade only (A-F).

404. Advanced Scriptwriting for Film and Electronic Media (3)
Prerequisites: FEA 304 or consent of instructor.
Writing dramatic and comedic screenplays and teleplays. Includes study of produced models with emphasis on the creative process.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

405./505. Comedy Writing (3)
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
Study of a variety of historical and contemporary models. Practice in the creation of print pieces; stand-up routines; scripts for television, film, and other media. Heavy focus on comedy as social, political, and technological criticism.
Letter grade only (A-F).

408./508. Writing the Screen Adaptation (3)
Prerequisites: FEA Major or minor status, FEA 207 or FEA 303, or consent of instructor.
Writing script adaptations, with a study of adaptation theory and successful adaptational models.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

410. Film Criticism Practicum (3)
Prerequisites: FEA 205 and FEA 302 or consent of instructor.
Writing film criticism for print and electronic distribution. Focus on critical methodologies, writing for diverse publications and audiences, and uses of criticism in film marketing and reception.
Letter grade only (A-F).

415. Media Editing (3)
Prerequisites: Admission to the Option in Narrative Production or consent of instructor.
Principles of non-linear editing in post-production.
Letter grade only (A-F). (6 hours activity)

416. Advanced Media Editing (3)
Prerequisites: FEA 415.
Advanced course in which students edit a project from dailies to final master, using new AVID Media Composer HD, Final Cut Pro, and principles of Hi-Def.
Letter grade only (A-F). (6 hours activity)

418. Color Correction (3)
Prerequisite: FEA 415 or consent of instructor.
Introduction to the art and science of digital color correction. Students develop aesthetic and technical skills to grade short films as a colorist.
Letter grade only (A-F).

427. Production Management II (3)
Prerequisite: FEA 327.
Examines the process of producing independent feature-length films, focusing on the producer's role from pre-production to distribution. Topics include budgeting, hiring employees, and supervising production and post-production.
Letter grade only (A-F).

437. 3D Computer Animation (3)
Prerequisites: FEA Major status, FEA 337, or consent of instructor.
Techniques and concepts in the production of 3D computer animation for short and feature length productions, visual effects and games.
Letter grade only (A-F). (6 hours activity)

438. Television Studio Directing (3)
Prerequisite: FEA 338 or consent of instructor
Advanced seminar expanding on the principles, techniques, and technologies of television studio production. Emphasis on multiple camera directing of interview, sitcom, music performance, and public affairs programs.
Letter grade only (A-F). Course fee may be required. (6 hours activity)

448. Television Sports Production (3)
Prerequisite(s): FEA 438 or consent of instructor.
Advanced course applying the principles, techniques, and technologies of television production to the specialized challenges of professional multiple-camera sports production. Emphasis on directing, producing, camera operation, and technical craft skills for live CSULB sports productions.
Letter grade only (A-F).

450. American Indian and Indigenous Cinema (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper division standing.
Examines American Indian and Indigenous self-representation in film. Focus on the history and theory of "Fourth World" cinema production.
Letter grade only (A-F). Same course as AIS 450. Not open to students with credit in AIS 450.

454. Italian Cinema (3)
Prerequisite: Upper division standing.
Historical and critical examination of Italian cinema.
Letter grade only (A-F). Same course as ITAL 454. Not open for credit to students with credit in ITAL 454. (2 hrs seminar, 2 hrs activity)

456. French Cinema (3)
Prerequisite: Upper division standing.
Historical and critical examination of French cinema.
Letter grade only (A-F). Same course as FREN 456. Not open for credit to students with credit in FREN 456. (2 hrs sem, 2 hrs activity)

457. German Cinema (3)
Prerequisite: Upper division standing.
Acquaint students with art of the medium, and history of German film, particularly as it is realized through work of the artist most responsible for its success or failure, in this case, the director.
Letter grade only (A-F). Same course as GERM 480. Not open for credit to students with credit in GERM 480. (2 hrs sem, 2 hrs activity)

458. Russian Cinema (3)
Prerequisites: Upper-division standing.
Focuses on sociopolitical and aesthetic aspects of Russian Cinema, delineating following periods: Soviet Silent Cinema, Stalinist Cinema, Cinema under Thaw, Cinema under Brezhnev and contemporary cinema.
Letter grade only (A-F). Same course as RUSS 428. Not open for credit to students with credit in RUSS 428. (2 hrs sem, 2 hrs activity)
**460. Spanish Cinema (3)**  
Prerequisites: Upper-division standing.  
Focus on sociopolitical and aesthetic aspects of Spanish Cinema, concentrating on the following periods. Early Francoism, Neo-Realism, The Barcelona School, the Transition Period, post Franco Years, and new trends in Spanish Cinema.  
Taught in English. Letter grade only (A-F). Same course as SPAN 428. Not open for credit to students with credit in FEA 392E or SPAN 428.

**462. East Asian Cinemas (3)**  
Prerequisite(s): FEA 205  
Historical and critical examination of cinemas of China, Hong Kong, Taiwan, Korea, and Japan.  
Letter grade only (A-F).

**464. Middle Eastern Cinemas (3)**  
Prerequisite: FEA 205 or consent of instructor.  
Historical and critical examination of cinemas of the Middle East and North Africa, including Israel, the Arab world, Turkey, and Iran.  
Letter grade only (A-F).

**486. Alternative Media (3)**  
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing. A score of 11 or higher on the GWAR Placement Examination, or completion of the necessary portfolio course required as a prerequisite for GWAR Writing Intensive Capstones.  
Critical study of censorship and suppression of information in mainstream media by governmental and corporate entities. Focus on importance of freedom of information and access to diverse viewpoints. Students research environmental, multicultural, peace, and other issues utilizing alternative media.  
Letter grade only (A-F).

**490./590. Selected Topics in Film and Electronic Arts (3)**  
Prerequisite: Major status.  
Topics of current interest in radio-television-film selected for intensive development.  
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics, only 6 units may be applied toward the B.A.  
Topics announced in the Schedule of Classes.

**492. Internship (3)**  
Prerequisites: Senior standing in major or consent of instructor.  
Students intern with cooperating media facilities.  
Credit/No Credit grading only. May be repeated to a maximum of 6 units. (6 hours lab)

**498. Advanced Seminar (3)**  
Prerequisites: FEA 299 with a "C" or better and senior standing in the FEA major.  
Intensive study of significant issues in film and electronic media.  
Letter grade only (A-F).

**499./599. Special Projects in Film and Electronic Arts (1-3)**  
Prerequisites: Major status, FEA 299 with a "C" or better. Research into an area of special interest to the student, culminating in a research paper or production. Productions will be limited by equipment and facilities available during any term. May be repeated to a maximum of 6 units.

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**GRADUATE LEVEL**

**501./401. Film Theory II: Contemporary (3)**  
Prerequisites: FEA 205 and FEA 302 or consent of instructor.  
Study of contemporary theoretical models of film analysis and evaluation. Topics include: Spectorship, Post-Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Postcolonialism, Queer Theory, Postmodernism, and Reception Studies.  
Letter grade only (A-F).

**505./405. Comedy Writing (3)**  
Prerequisites: FEA 207, FEA 303 or FEA 304 with a "C" or better or ENGL 405 or ENGL 407 with a "C" or better or consent of instructor.  
Study of a variety of historical and contemporary models. Practice in the creation of print pieces; stand-up routines; scripts for television, film, and other media. Heavy focus on comedy as social, political, and technological criticism.  
Letter grade only (A-F).

**508./408. Writing the Screen Adaptation (3)**  
Prerequisites: FEA 207, FEA 303 or FEA 304 with a "C" or better or ENGL 405 or ENGL 407 with a "C" or better or consent of instructor.  
Writing script adaptations, with study of adaptation theory and successful adaptational models.  
Letter grade only (A-F). May be repeated to a maximum of 6 units.

**590./490. Selected Topics in Film and Electronic Arts (3)**  
Prerequisites: Major status; conditional classified status in the MFA (Screenwriting) or conditional classified or consent of instructor.  
Topics of current interest in film and electronic arts selected for intensive development.  
Letter grade only (A-F). May be repeated for a maximum of 9 units with different topics, only 6 units may be applied toward the B.A.  
Topics announced in the Schedule of Classes.

**599./499. Special Projects in Film and Electronic Arts (3)**  
Prerequisites: Major status, FEA 299 with a "C" or better; conditional classified status in the MFA (Screenwriting) or consent of instructor.  
Research into an area of special interest to the student, culminating in a research paper or production. Productions will be limited by equipment and facilities available during any term.

**604A. Graduate Seminar in Dramatic Writing (3)**  
Open to graduate students only and consent of instructor.  
Advanced seminar and intensive workshop in creative writing, reading, criticism, media history, and aesthetics. From a thematic basis, course covers prose, poetry, and all formats and genres of omni media, leading students from text-for-print creativity to text-for-performance and screen/film/video art.  
Letter grade only (A-F).

**604B. Graduate Seminar in Dramatic Writing (3)**  
Prerequisites: FEA 604A and consent of instructor.  
Advanced workshop in intensive thematic and creative consciousness, writing, criticism, media history, aesthetics, and instructional paradigms, as students write, workshop, revise, and complete a long-form screenplay.  
Letter grade only (A-F).

**604C. Graduate Seminar in Dramatic Writing (3)**  
Prerequisites: FEA 604A and FEA 604B, or consent of instructor.  
Advanced workshop in intensive and practical creative writing for collaborative media. Long-form screenplay developed and drafted to completion on the following class as a group, then submitted to industry professionals, and finally revised pursuant to creative commentary and business necessity.  
Letter grade only (A-F).
604D. Graduate Seminar in Dramatic Writing (3)
Prerequisites: FEA 604A, FEA 604B, FEA 604C, and consent of instructor.
Advanced seminar and intensive workshop in creative writing, reading, criticism, media history, aesthetics, and the teaching of a creative writing curriculum. Course leads students to completion of their Thesis Project Proposals.
Letter grade only (A-F).
FINANCE
College of Business Administration

Department Chair: TBA
Department Office: College of Business Administration 420
Telephone: (562) 985-4569
Website: www.csulb.edu/colleges/cba/finance/

Faculty: Peter Ammermann, Hamdi Bilici (Emeritus), Cindy Chen, Pia Gupta, S. V. Le, Yulong Ma, Chanwit Phengpis, Wikrom Prombutr, Thomas A. Rhee, Darshan L. Sachdeva, Jasmine Yur-Austin

Administrative Support Coordinator: TBA
For MBA with Specialization in Finance, see Business Administration, Graduate Programs.

Career Possibilities
Financial Analyst • Bank Manager • Credit Manager • Securities Broker • Securities Company Manager • Securities Analyst • Real Estate Agent • Property Manager • Appraiser • Assessor • Contract Administrator • Underwriter • College Professor (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Science in Business Administration

Admission Under Impaction
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.

Requirements
In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

1. Lower Division:
   Take all of the following:
   ACCT 201 Elementary Financial Accounting (3) * C or better
   Prerequisite: None

   ACCT 202 Managerial Accounting (3) * C or better
   Prerequisite: ACCT 201.

   ECON 100 Principles of Macroeconomics (3) * C or better
   Prerequisites: MATH 103 or higher; one GE Foundation course.

   ECON 101 Principles of Microeconomics (3) * C or better
   Prerequisite/Corequisite: MATH 103 or higher.

   MATH 115 Calculus for Business (3) * C or better
   Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.

   Choose one of the following:
   STAT 118 Intro to Business Statistics (3) Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.

   MATH 114 Finite Mathematics (3) Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 11.

   Students planning business options should take STAT 118.

2. Critical Thinking Course Requirements:
   Any critical thinking course (GE category A3); IS 100 is recommended.

3. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:
   A. Passing score (70%) on the Computer Proficiency Examination (CPE).
   B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr).
      Prerequisite: None
   C. Transfer equivalent course with a "C" or better grade.

4. Upper Division:
   A. Take all of the following:
      CBA 300 International Business (3) Prerequisite: None
      FIN 300 Business Finance (3) Prerequisite: None
      BLAW 320 Legal and Regulatory Environment of Business (3) Prerequisite: None
      IS 300 Management Information Systems (3) Prerequisite: IS 233 or equivalent.
      IS 301 Business Communications (3) Prerequisite: None
      IS 310 Business Statistics (3) Prerequisite: STAT 118 or MATH 114.
      HRM 360 Organizational Behavior (3) Prerequisite: None
      MGMT 300 Principles of Management (3) Prerequisite: None
MKTG 300 Marketing (3)  
Prerequisite: None

B. The following Capstone course must be taken at CSULB as a senior and after the upper-division prerequisite core courses have been completed:  
MGMT 425 Business Strategy and Policy (3)  
Prerequisites: ACCT 202 or ACCT 320; MGMT 300, MKTG 300, FIN 300 and IS 301.

C. Completion of option requirements.

5. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

Option in Finance (120 units)

The Finance option provides an understanding of the role of finance in the corporate and international environment and an understanding of investments at both the corporate and personal level. This option provides an understanding of the role of finance in a business context, including the development of a comprehension of business ethics.

Students must take at least 51% of total required Finance units (for finance options) at CSULB.

Core Requirements

Take the following courses:

- FIN 350 Investment Principles (3)  
  Prerequisites: FIN 300.
- FIN 400 Intermediate Financial Management (3)  
  Prerequisites: FIN 300.

Select 4 additional courses, with at least 3 courses at the 400-level, from the following courses:

- FIN 310, FIN 330, FIN 340, FIN 360, FIN 450, FIN 460, FIN 470, FIN 480, FIN 485, FIN 490, FIN 495, FIN 497, FIN 499A, FIN 499B.

Minor in Finance

Requirements

For Non-Business Students only. (NOTE: The IS 301 prerequisite requirement is waived for the minor.)

- Students must have Junior standing.
- Students must complete the following two core courses prior to taking any other Finance courses:
  - FIN 300 Business Finance (3)  
    Prerequisite: None
  - FIN 350 Investment Principles (3)  
    Prerequisites: FIN 300.

Students must complete three additional courses (9 additional units) from among the various Finance courses, with at least two courses (6 units) being taken at the 400 level:

- FIN 310, FIN 330, FIN 340, FIN 360, FIN 400, FIN 450, FIN 460, FIN 470, FIN 480, FIN 485, FIN 490.

Courses (FIN)

UPPER DIVISION

300. Business Finance (3)

Introductory course for all business majors. Integration of computer applications and management information systems in (1) Time Value of Money, Risk, Valuation, Cost of Capital; (2) Capital Budgeting; (3) Long-Term Financing Decisions; (4) Working Capital Policy and Management; (5) Financial Analysis and Planning; (6) International Finance; (7) Special topics including Mergers, Acquisition and Bankruptcy.

Letter grade only (A-F).

310. Personal Finance (3)

Financial analysis planning and management for the individual. Topics include owning and financing a home, minimizing taxes, goals and strategies for investing, budgeting, savings plans, controlling expenses and credit usage, determining insurance needs, and planning retirement.

Letter grade only (A-F).

330. Insurance Principles (3)

Principles of risk-bearing and insurance. Life and property-liability insurance needs of the individual. Types of carriers and insurance markets; organization and functions of carriers; industry regulation.

Letter grade only (A-F).

340. Real Estate Principles (3)

Real estate markets, institutions and activities from the perspective of the decision makers involved in real estate. Fundamental physical, legal, regulatory, economic, mathematical and taxation considerations influencing real estate decision and values. Brokerage, property management, appraisal and counseling.

Letter grade only (A-F).

350. Investment Principles (3)

Prerequisites: FIN 300.

Investment markets and transactions; sources of investment information; return vs. risk; margin trading and short selling; investment planning; investing in equities and fixed income securities; speculative tax-sheltered investments; gold and other tangibles; portfolio management. Demonstrations and use of microcomputer technology.

Letter grade only (A-F). Course fee may be required.

360. Capital Markets (3)

Capital formation, rates, markets and institutions. Flow of fund analysis, intermediation, interest rate structures, risks and liquidity. Management of financial institutions.

Letter grade only (A-F).

400. Intermediate Financial Management (3)

Prerequisites: FIN 300.

Intermediate-level lecture-discussion course in corporate finance. Topics include: cash budgeting, capital budgeting, business acquisition and mergers, cost of capital, and international finance.

Letter grade only (A-F).

450. Portfolio Analysis (3)

Prerequisites: FIN 350.

Microcomputer technology to perform security analysis including bonds and the bond market, stocks and the stock market, security valuation, fundamental and technical analysis, portfolio management and risk-reward relationships. Microcomputer software programs that perform security analysis and portfolio management using numerous databases.
460. Management in Financial Institutions (3)
Prerequisites: FIN 300.
Students will be introduced to management of banks and other depository financial institutions. Banking trends and introductory topics, Asset and Liability Management, Capital adequacy and Management of Investment portfolios will be the main focus of the course.
Letter grade only (A-F).

470. Seminar in Financial Management (3)
Prerequisites: FIN 400.
Designed to enhance comprehension of finance theories through case studies. The subject of each designed case is related to specific finance subjects including estimation of cost of capital, resource allocation and capital budgeting, IPOs, stock repurchase, dividend policy, agency cost, and merger and acquisition.
Letter grade only (A-F).

480. Derivatives (3)
Prerequisites: FIN 350.
This is an introductory course in futures, options, swaps, and other derivatives. It teaches risk management methods and introduces financial engineering techniques, including basic stochastic calculus. It emphasizes the pricing of derivatives and the building of various quantitative models.

485. Fixed Income Securities (3)
Prerequisites: FIN 350.
The course analyzes fixed income securities, option embedded fixed income securities and interest rate derivatives. Usual duration and convexity analysis, and the interest rate stochastic processes and other forecasting techniques will be studied. New breeds of fixed income securities, various collateralized bond obligations and other asset backed securities, and interest rate arbitrage techniques will be introduced.
Letter grade only (A-F).

490. International Finance (3)
Prerequisites: FIN 300.
International trade theories, international payments; currency value fluctuations and exchange rates; international capital markets; roles of developing countries; international institutions and multi-national enterprises. Individual research required.
Letter grade only (A-F).

495. Selected Topics in Finance (1-3)
Prerequisites: FIN 350, FIN 400, and consent of instructor.
Intensive study of current topics of interest in finance.
Letter grade only (A-F).
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

497. Directed Studies (1-3)
Prerequisites: FIN 350, FIN 400, and consent of instructor.
Individual projects, study and research of advanced nature in finance.
Letter grade only (A-F).

499A-B. Applied Portfolio Management (3-3)
Prerequisites: FIN 499A: FIN 350, FIN 400, FIN 450 (either or both FIN 400 and FIN 450 may be taken concurrently), and consent of instructor; FIN 499B: FIN 499A and consent of instructor.
Participation in management of actual investment portfolio. Research, monitor, and analyze securities and make, buy and sell recommendations for a student-managed investment fund. Contribute to publication of semi-annual fund report. Market, sector and firm analysis with presentations and outside research.
Department Chair: Wendy Reiboldt
Department Office: Family and Consumer Sciences (FCS) - 001
Telephone / Fax: (562) 985-4484 / 985-4414
Website: www.csulb.edu/colleges/chhs/departments/fcs
Faculty: Mariné Aghekyan, Lee Blecher, Marie Botkin, Maria Claver, Gail C. Frank, Virginia Gray, Libby Gustin, Young Ha, James E. Koval, Peter Kreysa, Suzanne Marshall, Nilufer Medora, Wendy Reiboldt, Roudi Roy, M. Sue Stanley, Richard V. Tuveson, Long Wang, Jung-Mao (Ronnie) Yeh
Baccalaureate Program Coordinator: Richard V. Tuveson
Graduate Coordinator: Virginia Gray
Administrative Support Coordinators: Mikal Lok, Marina Bendersky
Instructional Support Technician: Bonnie Rice

Career Possibilities
Principal Food Scientist • Research Associate • Food and Packaging Engineer • Quality Assurance Manager • Research and Development Chemist • Quality Control Chemist • Laboratory Supervisor • Plant Manager • Food and Drug or USDA Inspector • Food Product Evaluator • Food and Ingredient Sales Representative • Research and Product Development, Food Formulation and Processing • Consumer Safety • Sensory Evaluation • Quality Assurance • Government Organization • Food Ingredient Sales and Marketing
(Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Arts in Family and Consumer Sciences
This degree offers six options:
• Child Development and Family Studies
• Consumer Affairs
• Family and Consumer Sciences Education
• Family Life Education
• Fashion Design
• Fashion Merchandising
Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Science in Hospitality, Foodservice and Hotel Management
Degree and certificate information and requirements are listed under each option alphabetically in this catalog

Bachelor of Science in Dietetics and Food Administration
This degree offers two options:
• Nutrition and Dietetics
• Food Science

Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Option in Food Science (120 units)
Admission to this program is currently suspended to new students.

Prerequisites
A passing score on the Chemistry Placement Examination.

Requirements
Take all of the following courses:

BIOL 207 Human Physiology (4)
Prerequisites: GE Foundation requirements.

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 227 Fundamentals of Organic Chemistry (3)
Prerequisites: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

CHEM 448 Fundamentals of Biological Chemistry (3)
Prerequisites: CHEM 220B or CHEM 227 either with a grade of "C" or better.

MATH 113 Precalculus Algebra (3)
Prerequisites: Appropriate ELM score, ELM exemption or MAPB 11.

BIOL 201 General Microbiology (4)
Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.

BIOL 325 Emerging Infectious Diseases (3)
Prerequisites: BIOL 311 or MICR 211 with a grade of "C" or better and consent of instructor.

CAFF 321 Family and Consumer Resource Management (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

FCS 299 Introduction to FCS (1)
Prerequisite: None.
Not open for credit to students with credit in FCSE 299.

FCS 499 Professionalism and Leadership in FCS (1)
Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
Not open for credit to students with credit in FCSE 499.

FSCI 332 Food Science (3)
Prerequisites: CHEM 227, HFHM 176, BIOL 201 or MICR 200.

FSCI 338 Introduction to Food Processing (3)
Prerequisite: FSCI 332.

FSCI 432 Food Analysis (3)
Prerequisites: CHEM 227, FSCI 332 or equivalent.

FSCI 435 Food Processing, Preservation and Packaging (3)
Prerequisite: FSCI 332 or consent of instructor.

FSCI 492F Internship in Food Science (3)
Prerequisites: Senior standing; a 2.5 overall GPA or a 3.0
major GPA; approval of faculty advisor in Food Science; and FSCI 332.

HFHM 235 Principles of Food Preparation (3)
Prerequisite: None.

NUTR 132 Introductory Nutrition (3)
Prerequisite/Corequisite: One Foundation course.

NUTR 234 Orientation Dietetics and Food Administration (2)
Prerequisite: None.

NUTR 336 Social and Cultural Aspects of Food and Health (3)
Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

Note: BIOL 201 or MICR 200 will meet the prerequisite for BIOL 325 for Food Science majors.

Take one of the following courses:
ED P 419 Educational Statistics (3)
Prerequisites: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower-division statistics course.

H SC 403 Community Health Statistics (3)
Prerequisite: GE Math and SOC 170 or PSY 110 (PSY 100 prereq) or STAT 108.

Take one of the following courses:
ENGL 317 Technical Communication (3)
Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take one of the following courses:
PSY 100 General Psychology (3)
Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

SOC 100 Principles of Sociology (3)
Prerequisite/Corequisite: A GE Foundation course.

Take 9 units from the following courses:
CHEM 111B; FCS 497; HFHM 275, HFHM 477; IS 233.

Minor in Food Science
Preparation for employment in the Food Science Industry may be developed through completion of this program of study. Eighteen units including:

Take all the following:
FSCI 332 Food Science (3)
Prerequisites: CHEM 227, HFHM 176, BIOL 201 or MICR 200.

FSCI 338 Introduction to Food Processing (3)
Prerequisite: FSCI 332.

FSCI 432 Food Analysis (3)
Prerequisites: CHEM 227, FSCI 332 or equivalent.

FSCI 435 Food Processing, Preservation and Packaging (3)
Prerequisites: FSCI 332 or consent of instructor.

FSCI 492F Internship in Food Science (3)
Prerequisites: Senior standing; a 2.5 overall GPA or a 3.0 major GPA; approval of faculty advisor in Food Science; and FSCI 332.

Take 3 units from the following:
FCS 497 Directed Studies
Prerequisites: Upper division standing, consent of instructor. Not open for credit to students with credit in FCSE 497.

BIOL 325 Emerging Infectious Diseases
Prerequisites: MICR 311 or MICR 211 with a grade of "C" or better and consent of instructor.

NUTR 336 Social and Cultural Aspects of Food and Health (3)
Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

Adhere to prerequisites below, some fulfill GE requirements:
1. CHEM 111A is a prerequisite for CHEM 227;
2. HFHM 235, CHEM 227, and MICR 200 are prerequisites for FSCI 332;
3. FSCI 332 is a prerequisite for FSCI 338, FSCI 432, FSCI 435, and FSCI 492F;
4. PSY 100 or SOC 100 or ANTH 120 or equivalent and NUTR 132 are prerequisites for NUTR 336;
5. BIOL 201 will meet the prerequisite for BIOL 325 for Food Science minors.

The Minor in Food Science is available to any non-Food Science major.

Food Science Courses (FSCI)

LOWER DIVISION

101. Franken Food: Fact or Science Fiction (3)
Prerequisite: None
This course addresses how the USA population is constantly bombarded with conflicting, as well disturbing, information about health claims, ingredient avoidance, processed food, food additives or genetically modified food. No course fee required.
Letter grade only A-F

UPPER DIVISION

330. Dairy Science (2)
Prerequisites: NUTR 132, HFHM 235.
Study of dairy science from chemical microbiological, processing, nutritional values, and economic standpoints. Integration of recent technology as implemented to feature marketed dairy products both traditional and contemporary.
(Lecture-discussion 2 hours.)

332. Food Science (3)
Prerequisites: CHEM 227, HFHM 176, BIOL 201 or MICR 200
Composition and structure of foods: chemical changes in foods that affect their color, flavor, texture, aroma, and nutritive quality during processing and preparation; techniques for food preservation.
Course fee may be required. (Lecture-discussion 2 hours, laboratory 3 hours.)

338. Introduction to Food Processing (3)
Prerequisite: FSCI 332.
Study of industrial concepts of food processing. Raw agricultural commodities through the production phases to a final product acceptable to consumers. (The course may include limited visitsations to food preparation sites.)
(Lecture-discussion 3 hours.)
432. Food Analysis (3)
Prerequisites: CHEM 227, FSCI 332 or equivalent.
Application of scientific methods of food analysis. Ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems.
Letter grade only (A-F). Course fee may be required. (Seminar 2 hours, Laboratory 3 hours.)

435. Food Processing, Preservation and Packaging (3)
Prerequisites: FSCI 332 or consent of instructor.
Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutrition. Evaluation of chemical additives. Microbiological aspects of food.
(Lecture - discussion 2 hours, laboratory 3 hours.)

469. Food Product Development (1)
Prerequisites: FSCI 332, or consent of instructor.
Industrial concepts and technology as they apply to food product development and formulation. Includes principles of new product development, ingredient replacements, and product improvements. Development of a prototype, ingredient interaction, and product cost analysis.
Letter grade only (A-F). (Seminar 1 hour)

492F. Internship in Food Science (3)
Prerequisites: Student must be a Family and Consumer Sciences: Food Science major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Food Science; and FSCI 332. Each prerequisite course must be completed with a grade of "C" or better.
Field experience in which student assumes a pre-professional role in professional setting. Objectives by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for a maximum of 6 units. (Seminar 3 hours)
FRENCH
College of Liberal Arts
Department of Romance, German, Russian Languages and Literatures

Department Chair: Markus Muller
Director: Aparna Nayak
RGRLL Language Coordinator: Cedric Oliva
Single Subject Coordinator for L.O.T.E.: Cynthia Leathers
Department Office: Academic Services, Room 309
Telephone: (562) 985-4317
Website: http://www.cla.csulb.edu/departments/rgrll/
Faculty: Laura Ceia, Clorinda Donato, Aparna Nayak, Najib Redouane
Graduate Advisor: Laura Ceia
Administrative Support Coordinator: Alessandro Russo

Students desiring information should contact the department office for referral to one of the faculty advisors: Credential advisor or current Program Director.

Career Possibilities
Arts Management • Art Historian • Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
Learning French makes you eligible for study and travel abroad in the International Programs of the California State University System. We are happy to assist you in including a study abroad experience into your program of language and literary study. Students are encouraged to participate in work/study abroad options.

Undergraduate Programs

Bachelor of Arts in French and Francophone Studies (120 units)
The major in French consists of 36 upper-division units in the 300-400 level courses indicated below. The number of lower-division units will depend on the amount of French studied previously in high school or college, since students with prior study of French may enter at advanced standing (usually second or third year).

The major program satisfies the subject matter competence requirement for the Single Subject teaching credential in French, but credential candidates must take FREN 414 (Phonetics). Major students should be mindful of the Department's second language requirement: two college years or equivalent of a second foreign language, other than English. The Department also recommends inclusion of specified history courses in the program of study. These courses offer additional enrichment to the cultural component of the student's course of study.

Completion of the French major meets the subject matter competence requirement for the Single Subject Teaching Credential in French. Prospective students should consult the undergraduate French Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

Prerequisite
Lower Division:
FREN 214 Intermediate Conversation (3)
Prerequisite: FREN 101B.
(Does not count toward the required 36 units)

Requirements
Upper Division (minimum 35 units):
Take all of the following courses:
FREN 312A Advanced French I (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 312B Advanced French II (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 314 Advanced Conversation (3)
Prerequisite: FREN 214 or consent of instructor.
FREN 333 Survey of French Literature I (4)
Prerequisite: Upper-division status in French.
FREN 334 Survey of French Literature II (4)
Prerequisite: Upper-division status in French.
FREN 411 Advanced French Syntax & Composition (3)
Prerequisites: FREN 312A-B or equivalent.
FREN 440 French Civilization (3)
Prerequisites: FREN 312A-B.
FREN 480 Senior Seminar: Self and Society (3)
Prerequisites: Two 400-level French courses, or consent of instructor.

Take three courses from the following:
FREN 414, FREN 456, FREN 460, FREN 462, FREN 471, FREN 472, FREN 474, FREN 475, FREN 476, FREN 477, FREN 479, FREN 490; one of the following courses may also be used in this category: RGR 346, RGR 400, RGR 450.

Candidates for the teaching credential must take FREN 414.
Two years of a second foreign language at college level or equivalent.

Departmental Recommendation:
Students specializing in French should include the following courses in their program of study: HIST 131, HIST 132, and one or more of the following: HIST 336, HIST 337. A selection from the following courses would also be appropriate: HIST 332, HIST 333; RGR 346, RGR 400, RGR 450.

Single Subject Teaching Credential in French
Completion of the French major meets the subject matter competence requirement for the Single Subject Teaching Credential in French. Prospective students should consult the undergraduate French Advisor and the Languages Other Than English (LOTE) Credential Program Advisor early to plan their program.

In addition to meeting the subject matter competence
requirement for the Teaching Credential, prospective teachers of French are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

Requirements
Same as the BA in French but include the following:
FREN 414 French Phonetics (3)
Prerequisites: FREN 312 A-B or consent of instructor.

Interdisciplinary Option (120 units)

Requirements
Lower Division:
Take the following course:
FREN 214 Intermediate Conversation (3)
Prerequisite: FREN 101B.

Upper Division:
A minimum of forty-four (44) units of upper-division courses.
Take all of the following courses (23 units):
FREN 312A Advanced French I (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 312B Advanced French II (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 314 Advanced Conversation (3)
Prerequisite: FREN 214 or consent of instructor.
FREN 333 Survey of French Literature I (4)
Prerequisite: Upper-division status in French.
FREN 334 Survey of French Literature II (4)
Prerequisite: Upper-division status in French
FREN 411 Advanced French Syntax and Composition (3)
Prerequisites: FREN 312A-B or equivalent.
FREN 440 French Civilization (3)
Prerequisites: FREN 312A-B.

Note: with the program director's consent, the requirement of FREN 214, FREN 312A, FREN 312B, and FREN 314 may be waived.

Nine units (9) of electives selected from the following courses:
FREN 456, FREN 460, FREN 462, FREN 471, FREN 472, FREN 474, FREN 475A-B-C-D-E, FREN 477, FREN 479, FREN 480, FREN 490.

Twelve units (12) from one of the following content areas:
Africana Studies:
AFRS 337, AFRS 343A, AFRS 343B, AFRS 346,
AFRS 353, AFRS 363, AFRS 415, AFRS 430
Art History:
AH 415, AH 427, AH 436, AH 437, AH 438, AH 439, AH 448, AH 449, AH 450, AH 455
History, Francophone:
HIST 391, HIST 392, HIST 435, HIST 491;
History French/European:
HIST 304, HIST 319, HIST 330, HIST 331, HIST 332,
HIST 333, HIST 334, HIST 336, HIST 337, HIST 338,
HIST 339, HIST 340, HIST 441, HIST 478*;
Philosophy:
PHIL 361, PHIL 405, PHIL 413, PHIL 418, PHIL 484, PHIL 455;
Social Sciences:
A. Political Science: POSC 303, POSC 353, POSC 371, POSC 378, POSC 401, POSC 455, POSC 461, POSC 463;
B. International Studies: I/ST 319, I/ST 320, I/ST 449, I/ST 463, I/ST 478*;
C. Women’s, Gender and SexualitY Studies:
WGSS 300, WGSS 382, WGSS 401, WGSS 402, WGSS 415, WGSS 455, WGSS 475;

* HIST 478 & I/ST 478 are crosslisted and can only be counted once towards the major.

Minor in French and Francophone Studies

Requirements: 18 to 34 units, depending on language competency.
Language Competency:
Students must achieve intermediate competency in French equivalent to either French 200 or 201B prior to enrolling in upper division coursework. The total number of lower-division units depends on the student's existing language competency and can range from 0 to 16 units depending on placement.

Students should consult with the undergraduate advisor regarding demonstration of existing language competency.

Upper Division Requirements:
A minimum of 18 units which must include all of the following:
FREN 312A Advanced French I (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 312B Advanced French II (3)
Prerequisite: Upper-division standing in French or equivalent.
FREN 411 Advanced French Syntax & Composition (3)
Prerequisites: FREN 312A-B or equivalent.

Take three other upper-division courses in French for a total of 18 upper-division units.

The Minor in French is available to any non-French major.
Master of Arts in French and Francophone Studies

Prerequisites
1. A bachelor of arts degree in French, or:
2. A bachelor’s degree with a minimum of 24 upper-division units in French, comparable to those required of a major in French at this University. Deficiencies will be determined by the advisor after consultation with the student and study of transcript records.

Advancement to Candidacy
1. Approval of the graduate program by the graduate advisor, the faculty advisor and/or departmental committee, and the College of Liberal Arts Associate Dean of Graduate Studies.
2. The candidate should file for advancement upon completion of 6 units and preferably no more than 9 units on the program. A 3.0 GPA is required.
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

Requirements
1. Completion of a minimum of 30 units of approved upper-division and graduate courses, with a minimum of 24 units in the 500 and 600 series in French;
2. Specifically required courses include:
   - FREN 580* Self and Society (3)
     Prerequisites: Two 400-level French courses, or consent of instructor.
   - FREN 696* Research Methodology & Critical Theory (3)
     Prerequisite: Graduate standing required.
   - *students with a BA in French from CSULB see advisor
3. Two years of one of the following languages: Italian, Portuguese, Spanish, German, or Russian, or pass an examination at intermediate level in one of those languages. Major or minor in a second foreign language may be used to fulfill this requirement, upon approval by the Department. For other languages, consult the Graduate Advisor:
4. Maintain a GPA of at least "B" (3.0) in the major;
5. Pass comprehensive examinations on the Graduate Reading List in three areas to be selected by student upon consultation with Graduate Advisor (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity);
6. No more than six units of transfer graduate credits are allowed, subject to approval by the Graduate Advisor. No more than six units of International Programs course work may be credited toward the 24-unit French requirement for the MA at this university;
7. Teaching Associates must take RGR 601, Teaching Methodology. These units do not count toward the required 30 units for completion of the MA.

French Courses (FREN)

LOWER DIVISION
100A. Fundamentals of French for Spanish Speakers (4)
Prerequisite: Two semesters of college Spanish or 3 years of high school or be native or heritage speaker of Spanish.
Introductory course on the fundamental skills of speaking, reading, writing and comprehending French with an emphasis on the structural similarities between French and Spanish. Not open to heritage speakers or native speakers of French.
Not open for credit to students with credit in FREN 102, FREN 102A or FREN 101A.
100B. Fundamentals of French for Spanish Speakers (4)
Prerequisites: FREN100A; or FREN 101A with 2 semesters of college Spanish or 3 years of high school Spanish; or be heritage or native speakers of Spanish.
Introductory course on the fundamental skills of speaking, reading, writing and comprehending French with an emphasis on the structural similarities between French and Spanish.
Not open to heritage speakers or native speakers of French. Not open for credit to students with credit in FREN 101B or FREN 102B.
101. Fundamentals of French (6)
Prerequisite/Corequisite: Any Foundation course.
Two semesters of fundamental French are covered in one semester in this intensive hybrid (blended) course. Not open to heritage or native speakers of French. Not open to students who have completed FREN 101A, FREN 101B, FREN 100A or FREN 100B. (4 hrs. in class, 2 hrs. online)
101A. Fundamentals of French (4)
Prerequisite/Corequisite: Any Foundation course.
Introduction to fundamental skills of speaking, oral comprehension, reading, and writing. For those who are beginning the study of French or who have had one year of high school French.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.
101B. Fundamentals of French (4)
Prerequisite/Corequisite: FREN 101A or two years of high school French or equivalent.
Corequisite: Any Foundation course.
Fundamental skills of speaking, oral comprehension, reading and writing.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.
200. Intermediate French for Spanish Speakers (6)
Prerequisites: FREN 100B or FREN 101B or 3 years of high school French and 2 years of college Spanish or be native or heritage Spanish speaker.
Two semesters of Intermediate French are covered in one semester in this intensive hybrid (blended) course designed for students who are either native or heritage speakers of Spanish or have at least intermediate-level proficiency in Spanish. Not open to heritage speakers or native speakers of French.
Not open for credit to students with credit in FREN 202.
201. Intermediate French (6)
Prerequisites: FREN 101, FREN 100B, or FREN 101B or a minimum of 3 years of high-school French.
Prerequisite/Corequisite: Any Foundation course.
Two semesters of Intermediate French are covered in one semester in this intensive hybrid (blended) course. Not open to heritage or native speakers of French. Not open to students who have completed FREN 200, FREN 201A or FREN 201B. (4 hrs. in class, 2 hrs. online)

201A. Intermediate French (4)
Prerequisite: FREN 101B or three years of high school French or equivalent, GE Foundation requirement (or entering competency equivalent to FREN 101B and completion of concurrent enrollment in at least one Foundation course).
Continued development in speaking, oral comprehension, reading and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cia/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.

201B. Intermediate French (4)
Prerequisite: FREN 201A or four years of high school French or equivalent, GE Foundation requirement (or entering competency equivalent to FREN 201A and completion or concurrent enrollment in at least one Foundation course).
Continued development in speaking, oral comprehension, reading and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cia/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.

201. Intermediate French (6)
Prerequisites: FREN 101, FREN 100B, or FREN 101B or a minimum of 3 years of high-school French.
Prerequisite/Corequisite: Any Foundation course.
Two semesters of Intermediate French are covered in one semester in this intensive hybrid (blended) course. Not open to heritage or native speakers of French. Not open to students who have completed FREN 200, FREN 201A or FREN 201B. (4 hrs. in class, 2 hrs. online)

201A. Intermediate French (4)
Prerequisite: FREN 101B or three years of high school French or equivalent, GE Foundation requirement (or entering competency equivalent to FREN 101B and completion of concurrent enrollment in at least one Foundation course).
Continued development in speaking, oral comprehension, reading and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cia/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.

201B. Intermediate French (4)
Prerequisite: FREN 201A or four years of high school French or equivalent, GE Foundation requirement (or entering competency equivalent to FREN 201A and completion or concurrent enrollment in at least one Foundation course).
Continued development in speaking, oral comprehension, reading and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cia/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of French.

214. Intermediate Conversation (3)
Prerequisite: FREN 101B.
Should be taken concurrently with FREN 201A or FREN 201B. Designed to develop basic conversational skills and to prepare for more advanced work in FREN 314.
Letter grade only (A-F).

UPPER DIVISION

312A. Advanced French I (3)
Prerequisite: Upper-division standing in French or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.

312B. Advanced French II (3)
Prerequisite: Upper-division standing in French or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.

314. Advanced Conversation (3)
Prerequisite: FREN 214 or consent of instructor.
Continuation of FREN 214.
Letter grade only (A-F).

320. Business French (3)
This course provides students with the practical application of business communication skills and cultural competency required to work in a French-speaking environment. It covers economic institutions of France, Francophone Africa, the EU, and Québec; and highlights pertinent topics (marketing, banking, the stock market, transportation, business correspondence etc).
Letter grade only (A-F)

333. Survey of French Literature I (4)
Prerequisite: Upper-division status in French.
Introduction to important literary works, movements, and authors of French literature from the Middle Ages to the French Revolution studied in the context of social, political, religious, artistic, and philosophical developments. Letter grade only (A-F).

334. Survey of French Literature II (4)
Prerequisite: Upper-division status in French.
Introduction to important literary works, movements, and authors of French literature from 19TH and 20TH century France to postcolonial Francophone literature studied in the context of social, political, religious, artistic, and philosophical developments. Letter grade only (A-F).

411. Advanced French Syntax and Composition (3)
Prerequisite: FREN 312A-B or equivalent.
Special emphasis on the writing of compositions and developing an awareness of French style, as well as advanced syntax.

414. French Phonetics (3)
Prerequisite: FREN 312A-B or consent of instructor.
General concepts of linguistic science. Linguistics applied to the study and teaching of the French language. Articulatory phonetics as a means to form native French pronunciation habits with emphasis upon the difficulties encountered by speakers of American English.

423./523. Introduction to French Linguistics (3)
Prerequisites: FREN 312A-B and FREN 411.
Overview of French linguistics: Phonology, morphology and syntax. Also focuses on the application of linguistic knowledge of French to the teaching of French at the high school level in the U.S.

440. French Civilization (3)
Prerequisites: FREN 312A-B.
Significant aspects of French art, culture and social institutions.

456. French Cinema (3)
Prerequisite: Upper-division standing.
Acquaint students with the art of the medium, particularly as it is realized through the work of the artist most responsible for its success or failure, in this case the director.
Letter grade only (A-F). Same course as FEA 456. Not open for credit to students with credit in FEA 456. (2 hrs sem, 2 hrs activity)

460./560. The Art of Translation (3)
Prerequisites: Upper-division or graduate standing. Consent of instructor for third-year students.
Cover translation of French texts into English and of English texts French, as well as theories of translation and their implications. Translations may be published in The Translators' French Quarter, a journal of the RGRLL Department.
May be repeated to a maximum of 6 units.

462./562. Reading French Women Writers (3)
Prerequisites: Consent of instructor.
Covers literary production of women who wrote and write literature in France. French feminism, the question of “écriture féminine” and gender will also be discussed. Does not cover Francophone women writers.
May be repeated to a maximum of 6 units.
471./571. French Literature of the Renaissance (3)
Prerequisites: Consent of instructor.
Study of representative drama, poetry and prose of the 16th Century.

472./572. French Literature of the Seventeenth Century (3)
Prerequisites: Consent of instructor.
Study of representative drama, poetry and prose of the century.

474./574. The Age of Enlightenment (3)
Prerequisites: Consent of instructor.
Study of representative writers and thinkers of the century. Drama, poetry and prose.

475./575. Selected Topics - Seminar in Francophone Literature (3)
Prerequisites: Consent of instructor.
May be repeated to a maximum of 15 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Africa
B. Caribbean
C. Maghreb
D. Quebec
E. Switzerland

476./576. French Comic Traditions (3)
Prerequisites: Consent of instructor.
Historical overview of French comedic forms; close reading of selected works; elements of comic theory. Includes works such as medieval farce, Molière’s different comic genres, Beaumarchais, Feydeau and absurdist dramatists such as Jarry and Ionesco, as well as film comedies.
Letter grade only (A-F).

477./577. French Literature of the Nineteenth Century (3)
Prerequisites: Consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.

479./579. French Literature of the Twentieth Century (3)
Prerequisites: Consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.

480./580. Senior Seminar: Self and Society (3)
Prerequisites: Two 400-level French courses, or consent of instructor.
Integrative seminar examining a wide variety of literary works, ranging from Medieval through twentieth-century Francophone classic texts, and some films with strong literary connections. Emphasis on historical, critical and philosophical writings concerning issues in French-speaking cultures.
Letter grade only (A-F).

490./590. Selected Topics in French (1-3)
Study of a particular topic in French literature, language, or culture. May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes.

494. Internship in French (1-3)
Prerequisites: Consent of instructor and department chair.
Field work in French, supplemented by readings and tutorials under direction of a faculty. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member. May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in French.

499. Directed Studies (1-3)
Prerequisites: Consent of instructor and department chair.
Independent study undertaken under the supervision of a faculty member. May be repeated to 3 units provided the material is not the same. May be repeated to a maximum of 6 units with prior consent of department

GRADUATE LEVEL

523./423. Introduction to French Linguistics (3)
Prerequisites: FREN 312A/B and FREN 411.
Presents overview of French linguistics: Phonology, morphology and syntax. Focuses on application of linguistic knowledge of French to teaching French at high school level in U.S.

556. French Cinema (3)
Prerequisite: Graduate standing or consent of instructor
Acquaint students with the art of the medium, particularly as it is realized through the work of the artist most responsible for it success or failure, in this case the director.
Letter grade only (A-F). Taught in English or in French when needed. (2 hrs seminar, 2 hrs activity)

560./460. The Art of Translation (3)
Prerequisites: Upper-division or graduate standing. Consent of instructor for third-year students.
Covers translation of French texts into English and of English texts French, as well as theories of translation and their implications. Translations may be published in The Translators’ French Quarter, a journal of the RGRLL Department.

562./462. Reading French Women Writers (3)
Prerequisites: Consent of instructor.
Covers literary production of women who wrote and write literature in France. French feminism, the question of "écriture féminine" and gender discussed. Does not cover Francophone women writers.
May be repeated to a maximum of 6 units.

571./471. French Literature of the Renaissance (3)
Prerequisites: Consent of instructor.
Study of representative drama, poetry and prose of the 16th Century.
Letter grade only (A-F).

572./472. French Literature of the Seventeenth Century (3)
Prerequisites: Consent of instructor.
Study of representative drama, poetry and prose of the century.
Letter grade only (A-F).

574./474. The Age of Enlightenment (3)
Prerequisites: Consent of instructor.
Study of representative writers and thinkers of the century. Drama, poetry and prose.
Letter grade only (A-F).

575./475. Selected Topics - Seminar in Francophone Literature (3)
Prerequisites: Consent of instructor.
May be repeated to a maximum of 15 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Africa
B. Caribbean
C. Literature from the Maghreb
D. Quebec
E. Switzerland
576./476. French Comic Traditions (3)
Prerequisites: Consent of instructor.
Historical overview of French comedic forms; close reading of selected works; elements of comic theory. Includes works such as medieval farce, Molière’s different comic genres, Beaumarchais, Feydeau and absurdist dramatists such as Jarry and Ionesco, as well as film comedies.
Letter grade only (A-F).

577./477. French Literature of the Nineteenth Century (3)
Prerequisites: Consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.
Letter grade only (A-F).

579./479. French Literature of the Twentieth Century (3)
Prerequisites: Consent of instructor.
Study of representative writers of the century. Drama, poetry and prose.
Letter grade only (A-F).

580./480. Self and Society (3)
Prerequisites: Two 400-level French courses, or consent of instructor.
Integrative seminar examining a wide variety of literary works, ranging from Medieval through twentieth-century Francophone classic texts, and some films with strong literary connections. Emphasis on historical, critical and philosophical writings concerning issues in French-speaking cultures.
Letter grade only (A-F).

590./490. Selected Topics in French (1-3)
Study of a particular topic in French literature, language, or culture. May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes.

599. Directed Studies (1-3)
Prerequisites: Graduate Standing and consent of instructor and department chair. Graduate-level in-depth study on selected topics under supervision of a graduate faculty. Topic and study outline of work undertaken to be on file in department. Enrollment contingent upon approval of department chair and faculty member.
Letter grade only (A-F). May be repeated for a maximum of 6 units with different topics in the same semester.

604. Selected Topics - Seminar in a Century of French Literature (3)
Prerequisite: Corresponding 400/500-level century survey course or consent of instructor. Intensive studies in one of the following topics. Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.
E. French Literature Seminar: Medieval to 18th Century
F. French Literature Seminar: 19th-20th Century

688. Seminar in French Literature or Culture (3)
Prerequisite: Graduate standing in French. Intensive study of a specific aspect of French literature or culture. Subjects announced in the Schedule of Classes.
Letter grade only (A-F).

696. Research Methodology and Critical Theory (3)
Prerequisite: Graduate standing required. Introduction to methods of research/critical theory. Course familiarizes students with techniques and terminology of critical theory in the French tradition. Focus on theoretical issues such as “production” of meaning in texts, its relation to power, politics, ethics, and pleasure.
Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Consent of department chair. Individual study under the guidance of a faculty member. May be repeated to a maximum of 3 units. Letter grade only (A-F).

698. Thesis (3)
Prerequisite: Consent of Graduate Advisor. Planning, preparation, and completion of thesis in French for the master’s degree. With consent of graduate advisor only. May be repeated to a maximum of 6 units in the same semester.
GEOGRAPHY
College of Liberal Arts

Department Chair: Paul Laris
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Telephone: (562) 985-4977 / (562) 985-8432
Website: http://www.cla.csulb.edu/departments/geography/
Faculty: Hyowon Ban, Suzanne Dallman, Christine L. Jocoy, Paul Laris, Christopher T. Lee, Christine M. Rodrigue, Dmitrii Sidorov, Deborah Thien, Suzanne P. Wechsler
Advisors:
Undergraduate: Austin Beahm
Graduate: Suzanne Dallman
Administrative Support Coordinator: Carol Philipp, Maggie Munoz-Perez
Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
Urban Planner • Cartographer • Computer Mapping • Regional, Urban and Environmental Planner • Natural Resources Manager • Environmental Monitor • Transportation Planner • Travel Counselor/Agent • Real Estate Appraiser • Environmental Analyst • Intelligence Analyst • Marketing Analyst • Community Development Specialist • Demographer • Recreation Resource Planner • Industrial Development Specialist • GIS Specialist • Climatologist • Ecologist • Environmental Impact Report Writer • Teacher

Introduction
Geography focuses on the spatial organization of human and physical landscapes, the interactions between human society and the physical environment, as well as on the meanings that people bring to their place in the world.

The Department offers the Bachelor of Arts and Master of Arts degrees, Geography Minor, and two certificates. For further information, go to the department or visit http://www.csulb.edu/colleges/cla/departments/geography. For the Master of Arts degree in Geography, candidates are responsible for the general requirements stated in this catalog as well as the specific departmental requirements contained in the Geography Master of Arts Handbook.

Undergraduate Programs

Bachelor of Arts in Geography (120 units)

Requirements
A grade of "C" or better must be achieved in all upper division Geography courses. The Geography major requires at least 39 units of which at least 9 must be at the 400 level. Lower Division (12 units):

Take one of the following courses:
- GEOG 130 Geography of Weather and Climate (4)
  Prerequisite: One G.E. Foundation course (One B.2. and one A.1 course recommended)
- GEOG 140 Introduction to Physical Geography (3)

Take one of the following courses:
- GEOG 100 World Regional Geography (3)
  Prerequisite/Corequisite: One G.E. Foundation course
- GEOG 120 Geography of Human Diversity in U.S. (3)
  Prerequisite/Corequisite: One G.E. Foundation course
- GEOG 160 Introduction to Human Geography (3)
  Prerequisite/Corequisite: One G.E. Foundation course

Take the following courses:
- GEOG 280 Intro Geospatial Techniques (3)
  Prerequisite: None
- GEOG 200 Introduction to Research Methods for Geographers (3)
  Prerequisite: None

Upper Division (27 units)

Take all of the following courses:
- GEOG 340 Environmental Geography (3)
  Prerequisite: GEOG 130 or GEOG 140 or GEOL 280
- GEOG 360 Human Geography (3)
  Prerequisites: GEOG 100, GEOG 120, or GEOG 160
- GEOG 380 Introduction to Digital Cartography & Analysis (3)
  Prerequisite: None

Take one Regional course (see list below)
Take 3 courses in one of the following concentrations:
- Environmental/Physical Geography
- Human Geography
- Geospatial Techniques
- Global/Regional Studies
Take additional upper division elective courses to reach the minimum of 27 upper division units.

Major Concentrations
Students are urged to complete courses in each cluster and to seek the advice of the undergraduate advisor and other faculty to identify courses that are best suited to meet their educational and career objectives. In addition, programs may be tailored to meet the needs of individual students especially those choosing to double-major.

Environmental/Physical Geography:
- GEOG 330, GEOG 355, GEOG 440, GEOG 441, GEOG 442, GEOG 443, GEOG 444, GEOG 445, GEOG 447, GEOG 448, GEOG 455, GEOG 458, GEOG 481

Human Geography:
- GEOG 301, GEOG 319, GEOG 352, GEOG 357, GEOG 402, GEOG 446, GEOG 452, GEOG 460, GEOG 462/562 (also WGSS 462), GEOG 464, GEOG 465, GEOG 467, GEOG 468, GEOG 470, GEOG 471 (also HCA 471)

Geospatial Techniques:
- GEOG 400, GEOG 402, GEOG 473, GEOG 474, GEOG 475, GEOG 482, GEOG 484, GEOG 485, GEOG 486, GEOG 487A, GEOG 487B, GEOG 488

Global and Regional Studies:
- Global Studies Courses:
  - GEOG 319, GEOG 352, GEOG 355, GEOG 452, GEOG 460, GEOG 464, GEOG 468, GEOG 470
- Regional Courses (no more than two):
  - GEOG 304, GEOG 306, GEOG 308, GEOG 309
GEOG 313, GEOG 314, GEOG 315, GEOG 316, GEOG 318, GEOG 321

Additional Courses
The following courses may be included in the above concentrations with approval of the Undergraduate Advisor:
GEOG 392, GEOG 492, GEOG 494, GEOG 497.

Minor in Geography
The Minor in Geography is available to any non-Geography major. Requires a minimum of 18 units.
Take one of the following courses:
GEOG 130 Geography of Weather and Climate (4)
Prerequisite: One G.E. Foundation course (One B.2. and one A.1 course recommended)
GEOG 140 Introduction to Physical Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Take one of the following courses:
GEOG 100 World Regional Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course
GEOG 120 Geography of Human Diversity in U.S. (3)
Prerequisite/Corequisite: One G.E. Foundation course
GEOG 160 Introduction to Human Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Take one of the following courses:
GEOG 280 Intro Geospatial Techniques (3)
Prerequisite: None
GEOG 380 Introduction to Digital Cartography & Analysis (3)
Prerequisite: None
Take at least 9 units of upper division courses with at least one course selected from the 400 series.

Minor in Geographic Information Science
The minor in Geographic Information Science (GISci) is designed to help students who are looking for professional careers in the rapidly expanding sectors dealing with geospatial technology and mapping sciences. The field of geographic information science, while rooted in the discipline of geography, has applications in a variety of fields including but not limited to planning, environmental science, journalism, transportation, business and public health. The GISci minor provides an academic credential for students who are pursuing a degree in another discipline that have developed basic mastery of both geographic concepts relevant to responsible use of the technology, as well as technical and applied aspects of this field. The Minor in GISci is available to any CSULB student, except for those who are majors in geography.

Requirements
A minimum of 21 units is required. One of these courses is a basic 3-unit course in statistics which can be satisfied by GEOG 200, PSY 110, BIOL 260, HDEV 190, SOC 170 or a similar statistics course per advisor consent. In addition to a basic statistic course, the minor consists of an additional 18 units as follows:

The Minor in GISci is composed of two core courses:
GEOG 280 Introduction to Geospatial Techniques (3)
Prerequisites: None.
GEOG 380 Introduction to Digital Cartography & Analysis (3)
Prerequisites: None.
Students must also take 12 units of 400-level GISci courses from the following list:
GEOG 471, GEOG 473, GEOG 474, GEOG 475, GEOG 481, GEOG 482, GEOG 484, GEOG 485, GEOG 487A, GEOG 487B, GEOG 488

Certificate in Geographic Information Science
This certificate provides experience in quantitative spatial analysis using Geographic Information Systems software, remotely sensed imagery and field-derived data, and effective communication through maps. The certificate serves as a supplement to standard degree programs. Further information on the GIScience Certificate is available from the Geography undergraduate advisor, and online at www.csulb.edu/geography.

This certificate program is eligible for Financial Aid.
Please see the department web site for required Federal disclosure information.

Requirements
1. A bachelor’s degree, which may be earned concurrently.
2. Consultation with the certificate advisor in the Geography Department.
3. Satisfactory completion of prerequisites (9 units):
   GEOG 200 Introduction to Research Methods for Geographers (3) or equivalent
   GEOG 280 Intro Geospatial Techniques (3) or equivalent
   GEOG 380 Introduction to Digital Cartography & Analysis (3) or equivalent
   GEOG 481, GEOG 482, GEOG 484, GEOG 485, GEOG 487A, GEOG 487B, GEOG 488
4. A minimum of 23 units distributed as follows:
   A. Core Courses. Take all the following courses:
   GEOG 400 Multivariate Geographical Analysis (4)
      Prerequisite: GEOG 200 or any introductory statistics course or consent of instructor.
   GEOG 473 Remote Sensing (4)
      Prerequisites GEOG 200 (or equivalent) and GEOG 280 or GEOG 471 or GEOG 481; or consent of instructor.
   GEOG 485/585 Principles of Geographic Information Science (4)
      Prerequisites: GEOG 200 or equivalent AND GEOG 280 or GEOG 471 or GEOG 481; or consent of instructor.
   B. Specialization (three courses):
   Students are encouraged to select a specialization in one of the following three areas, although courses can be selected between categories with advisor approval.
   Geographic Information Systems:
   GEOG 487A/587A, GEOG 487B/587B, GEOG 488/588
   Remote Sensing: GEOG 474, GEOG 475
   Cartography: GEOG 482, GEOG 484/584
   One of the following courses may be substituted for the above courses with advisor consent: GEOG 446, GEOG 492, GEOG 494, GEOG 497, GEOG 697, GEOG 680.
   Substitutions may also be made for courses in database, computer programming, surveying and/or web design and visualization with approval from the Certificate Advisor.
Certificate in Urban Studies

The Urban Studies Certificate, housed in the Department of Geography, takes an interdisciplinary approach. Students take a core of courses in Geography and take courses from one of two concentrations (Urban Theory and Practice or Applied Urban Geography). For further information, go to www.csulb.edu/geography.

This certificate program is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

Requirements

1. A bachelor’s degree, which may be earned concurrently.
2. Consultation with the undergraduate advisor in the Geography Department.
3. A minimum of 23 units distributed as follows:
   Core requirements (6 units):
   Take the following courses:
   GEOG 301 The Urban Scene (3)
   Prerequisites: GE Foundation requirement, one or more Exploration courses, and upper division standing.
   GEOG 464 Urban Geography: Sustainable Cities (3)
   Prerequisite: GEOG 100, GEOG 120, or GEOG 160 or GEOG 301 or consent of instructor; GEOG 360 recommended.
   Corequisite: GEOG 301
   Concentration Requirement (minimum 17 units)
   Choose One Option:
   Concentration A - Urban Planning:
   Take one from each category:
   Planning Course: GEOG 446
   GIS Course: GEOG 485/585* or GEOG 471/HCA 471
   Policy Course: GEOG 467/567 or CAFF 322 or CAFF 422
   Applications course: GEOG 487/587B or GEOG 488/588 or GEOG 492
   Electives: as needed to reach 23 units total. Any course listed above or any of the following:
   CHLS 320, CHLS 421, HIST 474, ANTH 416/516, POSC 327, WGSS 432, DESN 367, GEOG 468
   *GEOG 485/585 prerequisite: GEOG 280 or GEOG 471 or HCA 471. GEOG 280 does not count toward the Certificate.
   Concentration B - Urban Theory and Praxis:
   Two courses from the following:
   Place, Space, and Power: POSC 327, WGSS 432, CHLS 421, GEOG 452, GEOG 462, GEOG 465
   One from each of the following:
   Policy: GEOG 467, CAFF 322, CAFF 422
   Community Development: CHLS 320, ASAM 345, GEOG 492
   Planning or Design: CHLS 320, ASAM 345, GEOG 492
   Electives: Additional courses as needed from either concentration

Graduate Programs

Master of Arts in Geography

Prerequisites

1. A bachelor’s degree in geography; or,
2. A bachelor’s degree with 24 units of upper division courses substantially equivalent to those required for a geography major at this University; or,
3. A bachelor’s degree in a related discipline with 24 units of upper division courses in a combination of geography and approved courses in related disciplines,
4. Completion of introductory methods course,
5. An undergraduate GPA of 3.0 (“B”) or better in geography, or alternative evidence of ability to do graduate work,
6. Completion of Graduate Record Examination (GRE),
7. File with the department a declaration of intent to seek the master’s degree in geography.

Advancement to Candidacy

1. See the Geography Graduate Student Handbook;
2. See the general University requirements.

Requirements

1. Completion of courses required to remove foundational and prerequisite deficiencies (see prerequisites above),
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR),
3. Completion of 30 units of approved upper division and graduate courses. A minimum of 24 units of Geography courses. A minimum of 21 units of 500 and 600-level courses
   Take the following two courses:
   GEOG 596 Geographic Thought and Literature (3)
   Prerequisite: Consent of instructor.
   GEOG 696 Seminar in Geographical Research Methods (3)
   Prerequisites: GEOG 596, graduate standing in geography, and consent instructor.
   Take one advanced geographic methods course, approved by the Thesis Advisory Committee Chair, from the following:
   GEOG 400 Multivariate Geographical Analysis (4)
   Prerequisite: GEOG 200 or any introductory statistics course or consent of instructor.
   GEOG 474 Intro to Digital Image Processing (4)
   Prerequisite: GEOG 473 or consent of instructor.
   GEOG 502 Qualitative Geographic Analysis (4)
   Prerequisite: GEOG 360 or consent of instructor.
   GEOG 575 Geographical Applications in Remote Sensing (4)
   Prerequisites: GEOG 473 or consent of instructor.
   GEOG 584 Enterprise GIS Development (4)
   Prerequisite: GEOG 280 and GEOG 380 or GEOG 471 or GEOG 481 or consent of instructor.
   GEOG 586 Field Methods in Landscape Analysis (4)
   Prerequisite: GEOG 340 or consent of instructor.
   GEOG 587A Applications of GIS: Environment and Natural Resources (4)
   Prerequisites: GEOG 485 or GEOG 585 or consent of instructor.
GEOG 587B Applications of Geographic Information Science: Urban and Economic (4)
Prerequisite: GEOG 485 or GEOG 585 or consent of instructor.

GEOG 588 Geographic Information Science (GIS) Programming (4)
Prerequisites: GEOG 485 or GEOG 585 or consent of instructor.
Corequisites: GEOG 485 or GEOG 585 or consent of instructor.

Take 2 topical seminars (each of the following seminars may be taken with credit twice to meet this requirement), from the following:

GEOG 640 Seminar in Physical/Environmental Geography (3)
Prerequisite: Consent of instructor.

GEOG 650 Seminar in Cultural Geography (3)
Prerequisite: Consent of instructor.

GEOG 666 Seminar in Urban Geography (3)
Prerequisite: Consent of instructor.

GEOG 680 Seminar in Geospatial Science (3)
Prerequisite: Consent of instructor.

Take 6 units of thesis:
GEOG 698 Thesis (6)
Prerequisite: Consent of instructor.

4. A "B" or better in two core courses:
GEOG 596 Geographic Thought and Literature (3)
Prerequisite: Consent of instructor.

GEOG 696 Seminar in Geographical Research Methods (3)
Prerequisites: GEOG 596, graduate standing in geography, and consent of instructor.

Master of Science in Geographic Information Science

This program is offered through the College of Continuing and Professional Education at a higher tuition rate.

The Master of Science in Geographic Information Science (MSGISci) is designed to address the needs of individuals across the geospatial workforce who require focused and specialized training to become competitive and contribute to the range of positions in this diverse industry. This one-year 30-unit applied training program combines advanced technical and analytic training in the geospatial sciences with training in interpersonal and business skills. The program's coursework is designed as a professional science masters to develop competencies essential for successful geospatial practitioners.

Prerequisites
Prerequisites include an undergraduate GPA of 3.0 and experience comparable to the following:
- a bachelor’s degree in geography with a minimum of one upper division course in geospatial techniques (geographic information science, cartography, and/or remote sensing); or
- a bachelor’s degree in a related discipline with a minimum of one upper division course in geospatial techniques (geographic information science, cartography, and/or remote sensing); or
- a bachelor’s degree in a related discipline with a minimum of one year of demonstrated work experience in a field with direct application of geospatial technologies.

University Requirements
- Completion of courses required to remove prerequisite deficiencies (see prerequisites above);
- Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
- Completion of 30 units of approved MSGISci graduate courses.

Program Requirements
Take the following courses:

GISC 601 Geospatial Professionalism(1)
Prerequisites: None

GISC 602 Applied GIS (4)
Prerequisite/Corequisite: GISC 601

GISC 603 Cartographic Visualization (4)
Prerequisite/Corequisite: GISC 601

GISC 604 Enterprise GIS Development (4)
Prerequisite/Corequisite: GISC 601

GISC 605 GIS Development (4)
Prerequisite/Corequisite: GISC 601

GISC 606 Applied Remote Sensing (4)
Prerequisite/Corequisite: GISC 601

GISC 607 Project Orientation and Support (2)
Prerequisites/Corequisites: GISC 601, GISC 602, GISC 603, GISC 604, GISC 605, GISC 606; or advisor consent.

GISC 608 Applied Project (4)
Prerequisites: GISC 601, GISC 602, GISC 603, GISC 604, GISC 605, GISC 606, and a grade of "C" or better in GISC 607; or advisor consent.

Take one PPA/NSCI course or 3 units of advisor approved, professionally focused upper-division coursework.

Culminating Experience
The program culminates with an applied research experience. The research project allows students to actively apply and demonstrate the knowledge and skills that they have both brought to and acquired through the curriculum. Applied research topics will have relevant practical applications and will be informed by our network of GIScience Professionals in the local workforce community. Topics may address spatial problems currently faced by members of our advisory board, our network of GIScience professionals, or existing faculty research. Students will participate in the equivalent of 6 units of work on an applied research project to engage them in a relevant hands-on research activity. Project reports will integrate the core competencies developed through the curriculum and reflect students' integration of instruction. The project deliverable will include a written project report and oral presentation.

General

392. Climate Action and Sustainability at CSULB
492. Applied Internship
494. Selected Topics in Geography
497. Directed Studies
Global and Regional

GLOBAL:
319. International Development
352. Geography of Travel and Tourism
355. International Environmental Issues
452. Geography of the Global Economy
468. World Cities/Cities of the World
470. Political Geography

REGIONAL:
100. World Regional Geography
304. California
306. United States and Canada
308. Africa South of the Sahara
309. The Middle East and North Africa
313. Southeast Asia
314. South Asia
315. East Asia
316. Europe
318. Russia and Its Neighbors
321. Geography of Latin America

Human Geography

120. Geography of Human Diversity in the United States
160. Introduction to Human Geography
319. International Development
352. Geography of Travel and Tourism
357. Sacred Geographies
360. Human Geography
446. Land Use Planning
452. Geography of the Global Economy
460. Population Geography
462/562. Gender, Place and Culture
464. Urban Geography: Sustainable Cities
465/565. Social Geography
467/567. Urban Geography: Metropolitan Problems and Solutions
468. World Cities/Cities of the World
470. Political Geography
471. Geographic Information Science (GIS) for Health
562/462. Gender, Place and Culture

Environmental/Physical Geography

101. The Global Environment
130. Geography of Weather and Climate
140. Introduction to Physical Geography
330. California Ecosystems
340. Environmental Geography
355. International Environmental Issues
440/540. Land and Water Environments
441/541. Geography of Mars
442. Biogeography
443. Watersheds: Processes and Management
444. Climatology
445. Paleoclimatology
447. Landscape Restoration
448. Environmental Assessment
455. People As Agents of Environmental Change
458/558. Hazards and Risk Management
481. Geographic Information Science for Natural Sciences

These courses develop skills in graphic and statistical communication and field analysis which are used within the various sub-fields of the discipline.

200. Introduction to Research Methods for Geographers
280. Introduction to Geospatial Techniques
380. Map Interpretation and Analysis
400. Multivariate Geographical Analysis
402. Qualitative Geographic Analysis
482. Thematic Map Design for Presentation and GIS
473. Remote Sensing
474. Introduction to Digital Image Processing
475. Geographical Application Remote Sensing
484/584. Advanced Concepts in Presentation Cartography
485/585. Introduction to Geographic Information Systems
486. Field Methods in Landscape Analysis
487A/587A. Applications of GIS: Environment and Natural Resources
487B/587B. Applications of GIS: Urban and Economic
488. Geographic Information Systems (GIS) Programming

Geography Courses (GEOG)

LOWER DIVISION

100. World Regional Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Through a spatial approach, introduction to the world’s geographic realms and examination of their cultural, population and political dynamics, resources and economic development, patterns of settlement and environmental elements.

101. The Global Environment (3)
Prerequisites: One Foundation course
Introduction to the Earth’s principal human-environmental relationships and biogeographic processes with a focus on how human actions impact the geography of living things from the local to the global scale.
Same course as ESP 101. Not open for credit to students with credit in ESP 101.

120. Geography of Human Diversity in the United States (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Examines America’s Human Diversity from a geographic perspective focusing on the spatial distribution and organization of race/ethnicity and gender/sexuality groups across the U.S.’s rural and urban cultural landscapes while emphasizing the spatial politics of inclusion and exclusion.

130. Geography of Weather and Climate (4)
Prerequisite: One G.E. Foundation course (One B.2. and one A.1 course recommended)
Introduction to Earth’s atmosphere, weather processes, global climate patterns, drivers of climate change and their interactions with the biotic and abiotic environment. Analysis of how human activities affect weather and climate processes and the patterns of global climate impacts.
Letter grade only (A-F). (3 hours lecture, 2 hours field activity)

140. Introduction to Physical Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Systematic study of the physical environment including human-environmental interaction, environmental hazards, and natural resources.

160. Introduction to Human Geography (3)
Prerequisite/Corequisite: One G.E. Foundation course.
Geographic aspects of culture, including the past and present social, political and economic factors that are related to human perception, organization and use of the environment.
200. Introduction to Research Methods for Geographers (3)
Introduction to the scientific method in geography, with an emphasis on basic quantitative and qualitative techniques and their applications.
Not open for credit to student with credit in first course in statistics. (2 hours lecture, 2 hours laboratory).

250. Early World Historical Geography (4)
Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students.
Emergence and changing nature of urban life, cultural and technological diffusions, and variations in the intensity of contact and exchange among cultures and civilizations over time.
Geographic and historical factors, such as location and place, human/environment interactions, migrations, and diffusion.
Same course as HIST 250. Not open for credit to students with credit in HIST 250.

280. Introduction to Geospatial Techniques (3)
Introduction to geospatial techniques, which include geographic information science (GIS), cartography, global positioning systems (GPS), and remote sensing. Students will be introduced to the geographic concepts required for spatial analysis.
(3 hours lecture)

UPPER DIVISION
General Education Category A must be completed prior to taking any upper division course.

301. The Urban Scene (3)
Prerequisites: GE Foundation requirement, one or more Exploration courses, and upper-division standing.
Analysis of urban life-styles; land use and design; population trends; conflicts in the increasingly multicultural urban setting; housing and community development; suburban-central city relationships; human utilization of urban life spaces; opinions of landmark urbanists; and future trends.

304. California (3)
Prerequisite: Completion of the GE Foundation.
An exploration of California's diverse natural and cultural environment with emphasis upon social and economic problems and the human response to environmental hazards.

306. United States and Canada (3)
Prerequisites: GE Foundation requirement.
Common social, economic and political interests of the major human use regions of the United States and Canada. Describes and interprets the culture patterns of each region in relation to the natural settings in which they have developed.

308. Africa South of the Sahara (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Human and environmental settings of Africa South of Sahara and the ecological, cultural, demographic, economic settlement and political relationships that characterize them.

309. The Middle East and North Africa (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Human and physical settings of the Middle East and North Africa and the cultural, economic, settlement, and political relationships that characterize them stressing those factors which underlie the region's instability and global importance.

313. Southeast Asia (3)
Prerequisites: GE Foundation requirement, one or more Exploration courses and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

314. South Asia (3)
Prerequisites: GE Foundation requirement, one or more Exploration courses and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

315. East Asia (3)
Prerequisites: GE Foundation requirement, one or more Exploration courses and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

316. Europe (3)
Prerequisites: GE Foundation requirement.
The human and physical patterns of Europe. Current cultural conditions and environmental problems.

318. Russia and Its Neighbors (3)
Prerequisite: GE Foundation requirement.
Systematic and regional study of the physical, economic and cultural geography of the countries of the former Soviet Union.

319. International Development (3)
Prerequisites: GE Foundation requirement, one Explorations course, upper-division standing.
Theoretical and practical analysis of social, political, and economic development and alternative developmental models. Contemporary and historical comparisons of how "developed" and "developing" areas of the world have confronted various economic, social, and political challenges.
Same course as I/ST 319. Not open for credit to students with credit in I/ST 319.

321. Geography of Latin America (3)
Prerequisites: GE Foundation requirements. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
This course examines Latin America from a regional geographical perspective. Utilizing both historical and contemporary points of view, it identifies and interprets the distinguishing environmental, demographic, cultural, social, economic, and geopolitical characteristics of the region.
Not open to students who have taken GEOG 320I. Letter grade only (A-F).
330. California Ecosystems (3)
Prerequisites: GEOG 130 or GEOG 140 or ESP 101 or ESP 200; AND GEOG 200 or BIOL 280; or instructor consent.
Introduction to the ecology and biogeography of natural California landscapes, including field examination of habitats, collection and analysis of environmental data, and reporting of field or laboratory findings.
Letter grade only (A-F). Same course as ESP 330. Not open for credit to students with credit in ESP 330.
(2 hours lecture/activity, 2 hours field/laboratory)

340. Environmental Geography (3)
Prerequisite: GEOG 130 or GEOG 140 or GEOL 280.
Examines interrelationships between society and land and water environments. Focuses on critical analysis of contemporary environmental issues in American West, including both physical and human factors.
Letter grade only (A-F).

352. Geography of Travel and Tourism (3)
Historical and contemporary spatial characteristics and dimensions of tourism activity. Tourism, destinations, travel patterns, environmental and economic impacts, and analysis of regional tourism patterns.

355. International Environmental Issues (3)
Prerequisites: GE Foundation requirement, one Explorations course, and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examines the deterioration, destruction, maintenance and restoration of environmental systems and resources. Identifies and analyzes major environmental problems that have international dimensions. Investigates ongoing and potential efforts to resolve them.
Same course as I/ST 355. Not open for credit to students with credit in I/ST 355.

357. Sacred Geographies (3)
Prerequisites: Completion of GE Foundation, one or more Exploration courses and upper division status.
Comparative exploration of sacred spaces across the world. Examines the social, political, and religious processes that create places of ritual and reverence by linking the individual to the communal experience of place.
Letter grade only (A-F).

360. Human Geography (3)
Prerequisites: GEOG 100, GEOG 120, or GEOG 160.
Introduces breadth of research across subfields of human geography through examination of various contemporary topics, such as migration, globalization, cultural landscapes, urbanization, politics, agricultural practices, and development.
Letter grade only (A-F).

380. Introduction to Digital Cartography & Analysis (3)
Introductory knowledge and skills in the creation and analysis of digital cartography for graphic communication of geographical information.
(Lecture, problems 3 hours)

392. Climate Action and Sustainability at CSULB (3)
Prerequisites: Completion of the entire Foundation curriculum along with one or more Explorations courses and upper-division standing
Students join CSULB’s efforts to achieve climate neutrality (zero net greenhouse gas emissions) and sustainability through service learning assignments working with staff, faculty and community partners. Provides opportunities for all majors to apply and develop skills through hands-on experience.
6 hours activity.
Same course as ESP 392. Not open for credit to students with credit in ESP 392.

400. Multivariate Geographical Analysis (4)
Prerequisite: GEOG 200 or any introductory statistics course or consent of instructor.
Examination of advanced multivariate statistical techniques employed by geographers in analysis of spatial phenomena and emphasis on applications in geographical research, using spreadsheet and statistical software.
(3 hours seminar and 2 hours laboratory).

402. Qualitative Geographic Analysis (4)
Prerequisite: GEOG 360 or consent of instructor.
Examines qualitative geographic methodologies and methods through the theoretical frameworks that geographers employ in their research. Introduces survey, interview, and focus group techniques, textual analysis, participant observation, and ethnography. Includes a hands-on research experience.
(4 hours discussion). Letter grade only (A-F).

440./540. Land and Water Resources (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Examines interrelationships between land and water as components of the human environment. Focus is on management, use and human impacts, with an emphasis on water resources.
Letter grade only (A-F). (Lecture-discussion)

441./541. The Geography of Mars (3)
Prerequisite/Corequisite: GEOG 130 or GEOG 140 or GEOL 102 and GEOG 280 or consent of instructor.
Introduction to the geography of Mars, providing a physical regionalization of the Martian surface and climate and an understanding of underlying tectonic, geomorphic, and meteorological processes. The course reviews remote sensing fundamentals and data sources for geographical analysis of Mars.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

442. Biogeography (3)
Prerequisite/Corequisite: GEOG/ESP 330.
Theories and methods of mapping plant and animal distributions, spatial interaction of species with environmental limiting factors, and the human role in temporal and spatial variation of ecosystems.
Letter grade only (A-F). (Lec-problems; field experience)

443. Watersheds: Processes and Management (4)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Basic principles of watershed hydrology, including hydrologic processes, runoff behavior, precipitation patterns and watershed models. Evaluation of water quality elements such as nonpoint source pollution. Laboratory and field exercises will include hydrologic data collection, processing and evaluation.
Letter grade only (A-F). (3 hours Lecture, 2 hours Laboratory)
444. Climatology (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Introduction to geographic study of population. Includes growth and distribution of world population; related problems such as food supplies and environmental deterioration.
Letter grade only (A-F). (Lecture, problems 3 hours)

445. Paleoclimatology (4)
Prerequisite: GEOG 330 or GEOL 240 or GEOL 300.
Methods and theories used in reconstructing and dating climates of the past 2 million years, using such proxies as sediment sequences, packrat middens, ice cores, tree rings, corals, and documentary data. Causes of environmental change and human interactions are analyzed.
Cross-listed with GEOL 445. Same course as GEOL 445. Not open for credit to students with credit in GEOL 445
Letter grade only (A-F). (Lecture 3 hours, lab activities 2 hours)

446. Land Use Planning (3)
Prerequisite(s)/Corequisite(s): GEOG/ESP 330.
Examines land use planning, issues and responses concerning land use; coastal zones; environmental resource management; urban growth; design and aesthetics; planning parameters for residences, parks, conservation areas, shopping centers, and industrial areas; urban and regional revitalization, and transportation.
Not open for credit to students with credit in U/ST 446

447. Landscape Restoration (3)
Prerequisite(s)/Corequisite(s): GEOG/ESP 330.
Explores philosophical, political, and ecological issues associated with restoring degraded landscapes. Analysis of theoretical works, scientific research, planning documents and case studies. Examines potential for restoring natural landscapes.
Letter grade only (A-F).

448./548. Environmental Assessment (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Introduction to the policy framework and techniques for assessing impacts on various aspects of the biological and physical environment. The course is a survey of multiple topics involving various types of environmental assessment, including data collection, processing and evaluation.
Letter grade only (A-F). (Undergraduates register in GEOG 448; graduates register in 548.) (3 hours lecture, activity)

452. Geography of the Global Economy (3)
Prerequisite: GEOG 360 or consent of instructor.
Examines globalization processes that create integration of world's economic, political, and cultural systems, but operate unevenly across space and time. Focuses on impact on people and places around the world.
(Lecture, problems) Letter grade only (A-F).

455. People As Agents of Environmental Change (3)
Prerequisite: GEOG 340 or consent of instructor.
Examines human impact on biophysical environment from long-term and global perspective. Explores regional and global implications of these changes on people and environments. Examines different theories for explaining major human forces that drive environmental change.
Letter grade only (A-F). (Lecture 3 hours)

458./558. Hazards and Risk Management (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Broad overview of hazards and disasters, whether natural or technological, emphasizing the physical and social dynamics that interact to produce hazard, the spatial and temporal distributions of various hazards, and policy options for disaster preparation, loss reduction, and community resilience.
Letter grade only (A-F).

460. Population Geography (3)
Prerequisite: GEOG 360 or consent of instructor.
Introduction to geographic study of population. Includes growth and distribution of world population; related problems such as food supplies and environmental deterioration.
Letter grade only (A-F).

462/562. Gender, Place and Culture (3)
Prerequisite: GEOG 360 or WGSS 300 or consent of instructor.
A human geography approach to examining intersections of gender, place and culture. Topics include: body spaces; geographies of sexualities; emotion, care and health; migration; environmental and social justice; feminist post-structural theories and philosophies; and feminist methodological approaches to geographic research.
Letter grade only (A-F). (Same course as WGSS 462. Not open for credit to students with credit in WGSS 462)

464. Urban Geography: Sustainable Cities (3)
Prerequisite: GEOG 100, GEOG 120, or GEOG 160 or GEOG 301 or consent of instructor; GEOG 360 recommended.
Corequisite: GEOG 301
Examines the function and character of cities as locations for sustainable development related to health, transportation, and neighborhood design. Course focuses on trends in public policy, planning, and community-based activism that seek to balance economic, social, and environmental well-being.
Letter grade only (A-F).

465./565. Social Geography (3)
Prerequisite: GEOG 360 or consent of instructor.
The geographies of society, including various methodological and theoretical approaches to social geography. Topics may include socio-spatial inequality, crime, housing, religious systems, medical and health geography, feminist geography, the geography of sexuality, the geography of race, or poststructuralist geography.
Letter grade only (A-F).

467./567. Urban Geography: Metropolitan Problems and Solutions (3)
Prerequisite: GEOG 360 or consent of instructor.
Examines geographic components of metropolitan problems with a focus on theoretical and practically applied urban planning solutions to transportation, housing, residential segregation, economic development, and community health issues.
Letter grade only (A-F). (Lecture, problems 3 hrs)

468. World Cities/Cities of the World (3)
Prerequisite: GEOG 360 or consent of instructor.
Comparative examination of major world cities within the context of their regional and national urban systems. Compares and contrasts cities of developed and developing worlds. Explores divergent urbanization patterns and world city development in major cultural realms.
Letter grade only (A-F).

470. Political Geography (3)
Prerequisite: GEOG 360 or consent of instructor.
Examines the interface between people, power and territory. We consider how societies are organized at local, national and international scales, how ideologies (including nationalism) have political implications, and how the state is changing through the agency of new state and non-state actors. We explore the consequences of these new geographies of power.
Letter grade only (A-F). (Lecture, problems)
471. Geographic Information Science (GIS) For Health (3)
Prerequisite: GEOG 200 or SOC 170 or equivalent.
An Introduction to the fundamentals of Geographic Information Science and systems (GIS) including concepts and skills in spatial reasoning and spatial thinking. Explores GIS in spatial query, problem analysis and decision support using health-related applications.
Lecture/discussion and Laboratory (2 hours seminar, 2 hours computer laboratory)
Letter grade only (A-F). Same course as HCA 471 and GEOG 485/585. Not open for credit to students with credit in HCA 471 or GEOG 485/585.

472. Remote Sensing (4)
Prerequisites: GEOG 200 or equivalent and GEOG 280 or GEOG 471 or GEOG 481; or consent of instructor.
Processing and interpretation of aerial photographs and digital satellite imagery. Topics include the electromagnetic spectrum, energy-matter interactions, sensor characteristics, and the acquisition, processing and interpretation of imagery for applications including the analysis of vegetation dynamics, surface hydrology and urban environments.
Letter grade only (A-F).

473. Remote Sensing (4)
Prerequisite: GEOG 473 or consent of instructor.
Provides a background to the principles and concepts of digital image processing and the extraction of information from digital satellite data with focus various enhancement and extraction techniques, specifically, within the visible and near-infrared portions of the electromagnetic spectrum.
Letter grade only (A-F). (Seminar 3 hours; Laboratory 2 hours).

475. Geographical Applications in Remote Sensing (4)
Prerequisites: GEOG 473 or consent of instructor
Focuses on remote sensing applications. Students will be introduced to sophisticated imagery and analysis techniques, as applied to weather and fire modeling, arid lands environmental problems, or the urban environment.
Letter grade only (A-F).

481. Geographic Information Science for Natural Sciences (4)
Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or BIOL 153 or GEOL 102.
Introduces fundamentals of geographic information science and systems (GIS) to non-geography students, including concepts and skills in spatial reasoning and spatial thinking. Explores GIS in spatial query, problem analysis and decision support, using biologic, geologic, and ecologic applications.
Letter grade only (A-F). Not open for credit to students with credit in GEOG 485/585.

482. Advanced Digital Cartography & GIS (4)
Prerequisites: GEOG 200 or equivalent and GEOG 380 or consent of instructor.
Advanced theories and techniques for the creation of various types of numerical thematic maps using digital cartography, GIS, and empirical data.
Grading: Letter grade only (A-F)

484/584. Enterprise GIS Development (4)
Prerequisite: GEOG 280 and GEOG 380 or GEOG 471 or GEOG 482 or consent of instructor.
Provides a comprehensive overview of the enterprise geographic information system development process. Focuses specifically on geospatial data acquisition, management, and dissemination methods which utilize geodatabase functionality and custom developed mapping applications.
Letter grade only (A-F).

485./585. Principles of Geographic Information Science (4)
Prerequisites: GEOG 200 or equivalent AND GEOG 280 or GEOG 471 or GEOG 481; or consent of instructor.
Fundamental concepts and techniques of geographic information systems and science are introduced. Emphasizes spatial analyses to address spatial questions.
Letter grade only (A-F).

486. Field Methods in Landscape Analysis (4)
Prerequisite: GEOG 340 or equivalent and consent of instructor.
Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Introduction to field techniques, including formulation of field plans, recording direct observation, field mapping, sampling techniques, interviewing, and organizing and evaluating data for presentation.
Letter grade only (A-F). (Lecture-discussion 1 hour, supervised field work 6 hours)

487A. Applications of Geographic Information Science (GIS): Environment and Natural Resources (4)
Prerequisites: GEOG 485 or GEOG 585 or consent of instructor.
Use of Geographic Information Systems and science for spatial query, problem analysis, spatial modeling and decision support in natural resource assessment. Students with background in GIS are introduced to environmental applications. Emphasizes use of raster GIS.

487B. Applications of Geographic Information Science (GIS): Urban and Economic (4)
Prerequisites/Corequisites: GEOG 485 or GEOG 585 or consent of instructor.
Builds on introductory knowledge of Geographic Information Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses.

488./588. Geographic Information Science (GIS) Programming (4)
Prerequisite: GEOG 485 or GEOG 585 or consent of instructor
Corequisite: GEOG 485 or GEOG 585 or consent of instructor
Introduction to programming techniques for Geographic Information Sciences and applications for geography and related disciplines.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

492. Applied Internship (3)
Prerequisites: Upper division or graduate standing. Open to Geography and Environmental Science and Policy majors only.
Practical experience in an appropriate business, government or community-based organization to enhance professional development.
Same course as ES P 495. (6 hours activity/laboratory). May be repeated to a maximum of 6 units; a second semester experience shall differ substantially from first semester experience. Undergraduates may elect Credit/No Credit or letter grading; letter grading only is required for graduate students. Student will work under faculty supervision.

494. Selected Topics in Geography (1-3)
Prerequisite: Consent of instructor.
Application of geographical concepts and methodology to selected contemporary problems.
May be repeated to a maximum of 6 units with consent of department chair. Topics announced in the Schedule of Classes. May not be credited toward the major in geography without written department consent in advance of enrollment.
495. Field Training in Geographic Techniques (1-6)
Prerequisites: GEOG 140 and consent of instructor
In this advanced applied geography course students will enhance their
knowledge of various geographic and geospatial techniques and
apply these skills to address geographic and spatial questions through a
combination of intense hands-on field work and data analyses. Topics vary
by instructor.
Letter grade only (A-F). (3 - 18 hours Activity)

497. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Individually directed studies of special problems in geography.
May be repeated to a maximum of 6 units with consent of department
chairperson. May not be credited toward the major in geography without
written department consent in advance of enrollment.

GRADUATE LEVEL

500. Multivariate Geographical Analysis (4)
Prerequisites: GEOG 200 or any introductory statistics course or consent of
instructor.
Examination of advanced multivariate statistical techniques employed by
geographers in analysis of spatial phenomena. Emphasis on applications in
geospatial research, using spreadsheet and statistical software.
Letter grade only (A-F). (3 hours seminar, 2 hours laboratory)

502. Qualitative Geographic Analysis (4)
Prerequisite: GEOG 360 or consent of instructor.
Examines qualitative geographic methodologies and methods through the
theoretical frameworks that geographers employ in their research.
Introduces survey, interview, and focus group techniques, textual analysis,
participant observation, and ethnography. Includes a hands-on research
experience.
(4 hours discussion). Letter grade only (A-F).

540/.440. Land and Water Resources (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Examines interrelationships between land and water as components of the
human environment. Focus is on management, use and human impacts,
with an emphasis on water resources.
Letter grade only (A-F). (Lecture-discussion)

541/.441. The Geography of Mars (3)
Prerequisite/Corequisite: GEOG 130 or GEOG 140 or GEOG 102 and
GEOG 280 or consent of instructor, and graduate student standing.
Introduction to the geography of Mars, providing a physical regionalization of
the Martian surface and climate and an understanding of underlying
tectonic, geomorphic, and meteorological processes. The course reviews
remote sensing fundamentals and data sources for geographical analysis of
Mars.
Letter grade only (A-F). (2 hours seminar, 2 hours activity)

543. Watersheds: Processes and Management (4)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Basic principles of watershed hydrology, including hydrologic processes,
runoff behavior, precipitation patterns and watershed models. Evaluation of
water quality elements such as nonpoint source pollution. Laboratory
and field exercises will include hydrologic data collection, processing and
evaluation.
Letter grade only (A-F). (3 hours Lecture, 2 hours Laboratory)

548/.448. Environmental Assessment (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Introduction to the policy framework and techniques for assessing impacts on
various aspects of the biological and physical environment. The course is
a survey of multiple topics involving various types of environmental
assessment, including data collection, processing and evaluation.
(Undergraduates register in GEOG 448; graduates register in 548).
Letter grade only (A-F). (3 hours lecture, activity)

558/.458. Hazards and Risk Management (3)
Prerequisite: ESP 200 or GEOG 340 or consent of instructor.
Broad overview of hazards and disasters, whether natural or
 technological, emphasizing the physical and social dynamics that
 interact to produce hazard, the spatial and temporal distributions of
 various hazards, and policy options for disaster preparation, loss
 reduction, and community resilience.
Letter grade only (A-F).

562/462. Gender, Place and Culture (3)
Prerequisite: Graduate Standing
A human geography approach to examining intersections of
gender, place and culture. Topics include: body spaces;
geographies of sexualities; emotion, care and health; migration;
environmental and social justice; feminist post-structural theories and
philosophies; and feminist methodological approaches to
geographic research.
Letter grade only (A-F). Not open for credit to students with credit
in GEOG 462 or WGSS 462.

565/.465. Social Geography (3)
Prerequisite: GEOG 360 or consent of instructor.
The geographies of society, including various methodological and
theoretical approaches to social geography. Topics may include
socio-spatial inequality, crime, housing, religious systems, medical
and health geography, feminist geography, the geography of
sexuality, the geography of race, or poststructuralist geography.
Letter grade only (A-F).

567/.467. Urban Geography: Metropolitan Problems and
Solutions (3)
Prerequisite: GEOG 360 or consent of instructor.
Examines geographic components of metropolitan problems
with a focus on theoretical and practically applied urban planning
solutions to transportation, housing, residential segregation,
economic development, and community health issues.
(Lecture, problems 3 hrs) Letter grade only (A-F).

575. Geographical Applications in Remote Sensing (4)
Prerequisites: GEOG 473 or consent of instructor.
Focuses on remote sensing applications. Students will be
introduced to sophisticated imagery and analysis techniques, as
applied to weather and fire modeling, and lands environmental
problems, or the urban environment.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

584/.484. Enterprise GIS Development (4)
Prerequisite: GEOG 280 and GEOG 380 or GEOG 471 or GEOG
481 or consent of instructor.
Provides a comprehensive overview of the enterprise geographic
information system development process. Focuses specifically on
geospatial data acquisition, management, and dissemination
methods which utilize geodatabase functionality and custom
developed mapping applications.
Letter grade only (A-F).

585/.485. Principles of Geographic Information
Science (4)
Prerequisites: GEOG 200 or equivalent AND GEOG 280 or GEOG
471 or GEOG 481; or consent of instructor.
Fundamental concepts and techniques of geographic information
systems and science are introduced. Emphasizes spatial analyses to
address spatial questions.
Letter grade only (A-F).
586. Field Methods in Landscape Analysis (4)
Prerequisite: GEOG 340 or consent of instructor.
Introduction to field techniques, including formulation of field plans, recording direct observation, field mapping, sampling techniques, interviewing, and organizing and evaluating data for presentation.
(Seminar 1 hour; Field Work 6 hours). Letter grade only (A-F).

587A. Applications of Geographic Information Science (GIS): Environment and Natural Resources (4)
Prerequisites: GEOG 485 or GEOG 585 or consent of instructor.
The use of Geographic Information Systems and science for spatial query, problem analysis, spatial modeling and decision support in natural resource assessment. Students who possess a background in GIS are introduced to environmental applications. Emphasizes the use of raster GIS.

587B. Applications of Geographic Information Science (GIS): Urban and Economic (4)
Prerequisite: GEOG 485 or GEOG 585 or consent of instructor.
Builds on introductory knowledge of Geographic Information Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses.

588/488. Geographic Information Science (GIS) Programming (4)
Prerequisite(s): GEOG 485 or GEOG 585 or consent of instructor, Corequisite(s): GEOG 485 or GEOG 585 or consent of instructor.
Introduction to programming techniques for Geographic Information Sciences and applications for geography and related disciplines.
(Seminar 3 hours; Laboratory 2 hours). Letter grade only (A-F).

596. Geographic Thought and Literature (3)
Prerequisite: Consent of instructor.
Proseminar in the history of 20th century Anglophone geographic thought with emphasis on the theoretical and subdisciplinary perspectives current in the field today.
Letter grade only (A-F).

640. Seminar in Physical/Environmental Geography (3)
Prerequisite: Consent of instructor.
In depth investigation of physical and/or environmental issues and problems. Topics vary by instructor.
May be repeated to a maximum of 6 units with consent of departmental advisor. Letter grade only (A-F).

650. Seminar in Cultural Geography (3)
Prerequisite: Consent of instructor.
Systematic investigation of human occupancy in its varied environmental and regional settings.
May be repeated to a maximum of 6 units with consent of department advisor. Letter grade only (A-F).

666. Seminar in Urban Geography (3)
Prerequisite: Consent of instructor.
Geographic concepts and techniques of research applied to specific urban areas.
May be repeated to a maximum of 6 units with consent of department advisor. Letter grade only (A-F).

680. Seminar in Geospatial Science (3)
Prerequisite: Consent of instructor.
Application of geographic concepts and methodology to selected cartographic, GIS, remote sensing, and spatial analytic problems.
May be repeated to a maximum of 6 units with consent of departmental advisor. Letter grade only (A-F).

696. Seminar in Geographical Research Methods (3)
Prerequisites: GEOG 596, graduate standing in geography, and consent of instructor.
Critical survey of contemporary methodologies available for framing research in geography, emphasizing the connection between research models, research questions, and the selection and limitations of particular methods, techniques, and data.
Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Research in geography supervised on an individual basis.
Letter grade only (A-F).

698. Thesis (1-6)
Prerequisite: Consent of instructor.
Planning, preparation and completion of thesis for the master’s degree.

Geographic Information Science Courses (GISC)

601. Geospatial Professionalism (1)
Survey of core concepts underlying geographic information science and focus on professional development. A grade of C or better is required.
Letter grade only (A-F). A grade of "C" or better is required for students to progress in the MS GISci program.

602. Applied GIS (4)
Prerequisite/Corequisite: GISC 601
Explores geographic information systems for spatial query, analysis, and modeling in natural and human environments. Focuses on geospatial professional development, analytic techniques, GIS-based management and problem solving, and responsible use of geospatial technologies.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

603. Cartographic Visualization (4)
Prerequisites: GISC 601
Provides advanced theory and techniques for presentation cartography including communication, visualization, terrain representation, animation, and color.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

604. Enterprise GIS Development (4)
Prerequisites/Corequisite: GISC 601
Provides a comprehensive overview of the enterprise geographic information system development process. Focuses specifically on geospatial data acquisition, management, and dissemination methods which utilize geodatabase functionality and custom developed mapping applications.
Letter grade only (A-F).

605. GIS Development (4)
Prerequisite/Corequisite: GISC 601
Provides training in the use of GIS-relevant programming languages. Students will learn fundamentals of object oriented programming, application development, basic coding, and will complete a project where they develop a GIS utility.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)
Prerequisite/Corequisite: GISC 601
Principles and concepts of remote sensing and digital image processing are presented and applied. Students extract information from satellite and other data sources, focusing on enhancement and extraction techniques within the visible and near-infrared portions of the electromagnetic spectrum.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

607. Project Orientation and Support (2)
Prerequisites/Corequisites: GISC 601, GISC 602, GISC 603, GISC 604, GISC 605, GISC 606; or advisor consent.
Develop skills necessary to complete the applied project. Specific focus on proposal development and writing. Review of research methods and project deliverables. A grade of "C" or better is required for students to progress to GISC 608.
Letter grade only (A-F).

608. Applied Project (4)
Prerequisites: (GISC 601, GISC 602, GISC 603, GISC 604, GISC 605, GISC 606, and a grade of "C" or better in GISC 607; or advisor consent.
Students demonstrate analytical, technical, business and interpersonal competencies acquired through the program in a project-focused learning experience. Planning, preparation and completion of an applied geospatial project for the master's degree.
Grading: RP.
GEOLOGICAL SCIENCES
College of Natural Sciences and Mathematics

Department Chair: Stanley C. Finney
Department Office: Hall of Science (HSCI) 322
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Faculty: Matthew Becker, Richard J. Behl, Stanley C. Finney, Robert D. Francis, Roswitha B. Grannell, K. Benjamin Hagedorn, Gregory J. Holk, Thomas Kelly, Nathan Onderdonk, Lora Stevens

Administrative Support Coordinator: Margaret Costello
Advisors:
Undergraduate: Thomas Kelly
Credential: James Kisiel, Tim Williamson
Graduate: Lora Stevens-Landon

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

Career Possibilities
Geologist • Geophysicist • Hydrologist • Mineralogist • Paleontologist • Seismologist • Geophysical Prospector • Laboratory Assistant • Soils Engineer • Stratigrapher • Crystallographer • Geodesist • Environmental Analyst • Oceanographer • Teacher • Petrologist • Ecologist • Geochemist (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.) Various entry-level trainee positions in business and industry are available for graduates regardless of academic discipline.

Introduction
The Geological Sciences includes the study of the solid earth, the hydrosphere, and the atmosphere. All Earth Science and Geology majors must contact the Undergraduate Advisor prior to the first semester in residence.

The Geological Sciences Department participates in the Southern California Marine Institute for marine geology, oceanography, and seismic studies. See the Ocean Studies Institute section of this Catalog for additional information.

Academic Advising and Facilitated Enrollment into Classes
All entering students who declare a major in a degree program offered by this department need to contact the College of Natural Sciences and Mathematics’ (CNSM) Academic Advising Center (HSCI 164) and participate in the College’s Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June/July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students’ chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Academic Advising Center, Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

Concurrent and/or Summer Enrollment at Another College
Students who wish to take course work at a community or another college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate Department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with; see ‘Concurrent Enrollment’ and ‘Transfer of Undergraduate Credit’ in this Catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

Undergraduate Programs

Bachelor of Science in Geology (120 units)
The bachelor of science degree program provides training in the geological sciences for those planning to pursue professional careers in industry or enter a graduate degree program. Students explore fundamental geological processes, cultivate skills in integrative three-dimensional geological thinking, and engage in laboratory and field experience, and pursue interests in the many subdisciplines of the geological sciences. Students interested in pursuing a career in geophysics must consult the undergraduate advisor to construct an appropriate program.

Geology majors must receive a grade of ”C” or better in all courses required for the major. A minimum of 120 units is required for the Bachelor of Science degree. Transfer students should attempt to fulfill, prior to transferring, the appropriate lower division curricular requirements as outlined below. In particular students should take prior to transferring the equivalent of GEOL102 and 104, and at least three of the following four: CHEM 111A , CHEM 111B , MATH 122, and MATH 123.

GEOL 420 (Geological Writing) and GEOL 450 (Summer Field), both required courses for the major, are also capstone General Education courses, and GEOL 420 fulfills the GWAR requirement for a writing intensive course. Geology majors should take these two courses, and one other course to fulfill their upper division GE and GWAR requirements.

Lower Division:
Take all of the following:

GEOL 102 General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 104 Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.

GEOL 240 Historical Geology (4)
GEOL 250 Introduction to Field Petrology and Geological Field Techniques (3)
Prerequisites: GEOL 102 with GEOL 104 or GEOL 105; or GEOL 106; all with grades of "C" or better. Corequisite: GEOL 240.

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

MATH 122 Calculus I (4)
Prerequisite: A passing score on the Chemistry Placement Examination or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:

Take all of the following:

GEOL 322 Crystallography and Mineralogy (3)
Prerequisites: GEOL 250; CHEM 101 or CHEM 111A.

GEOL 326 Optical Mineralogy (2)
Prerequisite: GEOL 250; A passing score on the Chemistry Placement Examination or CHEM 111A;
Corequisite: GEOL 322

GEOL 322 and GEOL 326 must be taken concurrently unless the undergraduate advisor approves otherwise.

GEOL 341 Paleontology and Biostratigraphy (4)
Prerequisites: GEOL 240 and GE LIFE Science requirement B.1.a.

GEOL 350 Spring Field Geology (2)
Prerequisites: GEOL 250 and GEOL 443 with grades of "C" or better. Prerequisite/Corequisite: GEOL 433.

GEOL 420 Geological Writing (3)
Prerequisites: GE Foundation completed, upper division standing, GEOL 102, GEOL 104, GEOL 240, GEOL 250; and at least 6 units of geology courses at 300-level or above. Students must have scored 11 or higher on the GWAR Placement Examination or completed necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

GEOL 426 Igneous Metamorphic Petrography Laboratory (1)
Prerequisites: GEOL 322 and GEOL 326
Corequisite: GEOL 428

GEOL 428 Igneous and Metamorphic Petrology and Petrography (3)
Prerequisites: GEOL 322; CHEM 111A, B.

GEOL 428 and GEOL 426 must be taken concurrently unless the undergraduate advisor approves otherwise.

GEOL 433 Structural Geology (4)
Prerequisites: GEOL 250, GEOL 322; PHYS 151.

GEOL 443 Stratigraphy/Sedimentology (4)
Prerequisites: GEOL 240, GEOL 322.

GEOL 450 Summer Field Geology (4)
Prerequisites: GEOL 350, GEOL 428, GEOL 433, and GEOL 443.

GEOL 460 Introduction to Geophysics (3)
Prerequisites: PHYS 151, PHYS 152; and MATH 123, all with a grade of "C" or better.

GEOL 461 Introduction to Geochemistry (3)
Prerequisites: CHEM 111A,B and MATH 123.

In addition, nine units of electives (normally at upper division) approved in advance by the undergraduate advisor.

Minor in Geology

The Minor in Geology is available to any non-Geology major.

Lower Division:

Take all of the following:

GEOL 102 General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 104 Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.

GEOL 240 Historical Geology (4)
Prerequisite: GEOL 106 or both GEOL 102, GEOL 104.

Upper Division:

Take at least 9 additional units of geology approved in advance by the Undergraduate Advisor.

Bachelor of Science in Earth Science (120 units)

The Bachelor of Science degree in Earth Science is designed for those students considering a professional career in environmental, geotechnical, or engineering geology. The program also provides a fundamental education in geology that prepares students for graduate studies in the geological sciences. The required curriculum includes surficial geology courses (geomorphology, hydrology) not required as part of the B.S. in Geology. Students interested in pursuing a career in geophysics must consult the undergraduate advisor to construct an appropriate program.

Earth Science majors must receive a grade of "C" or better in all courses required for the major. A minimum of 120 units is required for the bachelor of science degree. Transfer students should attempt to fulfill, prior to transferring, the appropriate lower division curricular requirements as outlined below. In particular students should take prior to transferring the equivalent of GEOL 102 and 104, and at least three of the following four: CHEM 111A, CHEM 111B, MATH 122, and MATH 123.

GEOL 420 (Geological Writing) and GEOL 450 (Summer Field), both required courses for the major, are also capstone General Education courses, and GEOL 420 fulfills the GWAR requirement for a writing intensive course. Earth Science majors should take these two courses, and one other course to fulfill their upper division GE and GWAR requirements.

Lower Division:

Take all of the following:

GEOL 102 General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 104 Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.

GEOL 240 Historical Geology (4)
Prerequisite: GEOL 106 or both GEOL 102, GEOL 104.

GEOL 250 Introduction to Field Petrology and Geological Field Techniques (3)
Prerequisites: GEOL 102 with GEOL 104 or GEOL 105; or GEOL 106; all with grades of "C" or better. Corequisite: GEOL 240.

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisite: CHEM 111A with a grade of "C" or better.

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

Upper Division:
Take all of the following:

GEOL 322 Crystallography and Mineralogy (3)
Prerequisites: GEOL 250; CHEM 101 or CHEM 111A.

GEOL 339 Geomorphology (3)
Prerequisites: GEOL 102 with GEOL 104 or GEOL 105; or GEOL 106; or GEOG 140.

GEOL 350 Spring Field Geology (2)
Prerequisites: GEOL 250 and GEOL 443 with grades of "C" or better. Prerequisite/Corequisite: GEOL 433.

GEOL 420 Geological Writing (3)
Prerequisites: GE Foundation completed, upper division standing, GEOL 102, GEOL 104, GEOL 240, GEOL 250; and at least 6 units of Geology courses at 300-level or above. Students must have scored 11 or higher on the GWAR Placement Examination or completed necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

GEOL 428 Igneous and Metamorphic Petrology and Petrography (3)
Prerequisites: GEOL 322; CHEM 111A, B.

GEOL 433 Structural Geology (4)
Prerequisites: GEOL 250, GEOL 322; PHYS 151.

GEOL 443 Stratigraphy/Sedimentology (4)
Prerequisites: GEOL 240, GEOL 322.

GEOL 450 Summer Field Geology (4)
Prerequisites: GEOL 350, GEOL 428, GEOL 433, and GEOL 443.

GEOL 460 Introduction to Geophysics (3)
Prerequisites: PHYS 151, PHYS 152; and MATH 123, all with a grade of "C" or better.

GEOL 461 Introduction to Geochemistry (3)
Prerequisites: CHEM 111A, CHEM 111B and MATH 123.

GEOL 474 Physical Hydrology (3)
Prerequisites: GEOL 102, Math 122; PHYS 151
In addition, nine units of electives (normally at upper division) approved in advance by the undergraduate advisor. At least one elective must be chosen from the following list:

GEOL 477./577. Hydrogeology (4)
Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; (graduates enroll in GEOL 577).

MATH 370A. Applied Mathematics I (3)
Prerequisites: MATH 123. Not open to Freshmen.

**Geoscience Concentration**

The Geosciences Concentration meets the subject matter competence requirement for the Single Subject Teaching Credential in Geosciences. Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

**Requirements**

**Lower Division:**

Take all of the following:

- ASTR 100 Astronomy (3)
  Corequisites: One course from General Education Category B.2 and ASTR 100L.

- BIOL 211 Introduction to Evolution and Diversity (4)
  Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

- BIOL 212 Intro to Cell and Molecular Biology (4)
  Prerequisites: Completion of BIOL 211 and CHEM 111A with grades of "C" or better.
  Prerequisite/Corequisite: CHEM 111B

- BIOL 213 Introduction to Ecology and Physiology (4)
  Prerequisites: BIOL 211, 212, CHEM 111B all with a grade of "C" or better.

- CHEM 111A General Chemistry (5)
  Prerequisites: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.

- CHEM 111B General Chemistry (5)
  Prerequisites: CHEM 111A and MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

- MATH 122 Calculus I (4)
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

- MATH 123 Calculus II (4)
  Prerequisite: A grade of "C" or better in MATH 122.

- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.

- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

- PHYS 443 Stratigraphy/Sedimentology (4)
  Prerequisites: GEOL 240, GEOL 322.

- GEOL 450 Summer Field Geology (4)
  Prerequisites: GEOL 350, GEOL 428, GEOL 433, and GEOL 443.

- GEOL 460 Introduction to Geophysics (3)
  Prerequisites: PHYS 151, PHYS 152; and MATH 123, all with a grade of "C" or better.

- GEOL 461 Introduction to Geochemistry (3)
  Prerequisites: CHEM 111A, CHEM 111B and MATH 123.

- GEOL 474 Physical Hydrology (3)
  Prerequisites: GEOL 102, Math 122; PHYS 151
In addition, nine units of electives (normally at upper division) approved in advance by the undergraduate advisor. At least one elective must be chosen from the following list:

- GEOL 477./577. Hydrogeology (4)
  Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; (graduates enroll in GEOL 577).

- MATH 370A. Applied Mathematics I (3)
  Prerequisites: MATH 123. Not open to Freshmen.
NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

Upper Division:
Take all of the following
GEOL 341 Paleontology and Biostratigraphy (4)  
Prerequisites: GEOL 240 and GE Life Science requirement B.1.a.
GEOL 428 Igneous and Metamorphic Petrology and Petrography (3)  
Prerequisites: GEOL 322; CHEM 111A, B.
GEOL 433 Structural Geology (4)  
Prerequisites: GEOL 250, GEOL 322; PHYS 151.
GEOL 443 Stratigraphy/Sedimentology (4)  
Prerequisites: GEOL 240, GEOL 322.
GEOL 450 Summer Field Geology (4)  
Prerequisites: GEOL 350, GEOL 428, GEOL 433, and GEOL 443.
SCED 403 Integrated Science (3)  
Prerequisites: Completion of all credential breadth requirements for the Single Subject Teaching Credential Program in Science, three-fourths of the credential specializations courses, and consent of instructor.

Single Subject Teaching Credential in Geosciences
In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Geosciences teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Geosciences Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

GRADUATE PROGRAMS

Master of Science in Geology
The Department of Geological Sciences offers a comprehensive program of courses coupled with appropriate thesis projects leading to the Master of Science in Geology. Within geology, students specialize in any of a number of sub-disciplines including paleoclimatology, environmental geochemistry, geophysics, hydrogeology, mineralogy and petrology, tectonic geomorphology, paleontology, petroleum geology, sedimentology, stratigraphy, structural and field geology. In addition, a formal emphasis in geophysics is available. Students may include in their studies courses offered by other departments at CSULB with the approval of their principal thesis advisor (or their Thesis Committee).

Offshore Resources
The Department has access to an ocean-going research vessel, support staff, and dockside facilities of the Southern California Marine Institute (SCMI), a consortium of several California State University campuses, University of Southern California, and Occidental College.

Admission to the Program
The basic requirement for admission to the graduate program is possession of a bachelor’s degree or equivalent in geological sciences, or a closely related field. The final curriculum requirements for the Master of Science Degree are set by the Thesis Committee at Advancement to Candidacy, but the following undergraduate courses are considered an essential foundation for the program: (1) two courses in calculus, (2) two courses in general chemistry, (3) two courses in calculus-based physics, (4) a course in physical geology, (5) a course in historical geology, (6) mineralogy, (7) sedimentology/stratigraphy, (8) structural geology, (9) a course in field methods or a field camp. Students who are missing some of this course work may be admitted conditionally to the program but will be expected to remove deficiencies or present acceptable alternatives prior to Advancement to Candidacy. Courses taken to remove deficiencies cannot be used towards satisfying the minimum requirements of the Graduate Program. Students who are missing the general science and math requirements are recommended to complete an undergraduate degree in Geological Sciences or a closely related field before applying to the Graduate Program.

In addition to the above course work requirements, students are required to take the General test of the Graduate Record Examination and to submit three letters of recommendation prior to entry.

Prospective graduate students in the geological sciences, including CSULB graduates, must formally apply for admission to CSULB (CSUMentor) as described previously in this Catalog and must also apply directly to the Department of Geological Sciences. All applicants must submit all required documents directly to the Department by February 1 to receive full consideration for admission and financial support. Applications completed as late at April 1 may be considered on a case by case basis for any remaining positions. Required documents include:

1. Department Application Form, available on the Department’s website;
2. Personal Statement/Letter of Intent
3. Official transcripts of all college level academic work including that done at CSULB, in addition to those transcripts required for general graduate admission to CSULB;
4. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential. Instructions, including forms to be used for these letters, are included in the Department application form, available from the Department's website;
5. Official reports of scores on the General test of the Graduate Record Examination.

A limited number of teaching and research assistantships are available to fund graduate studies in the Department of
Initiation of Graduate Study

Students are responsible for all University and Department regulations governing master's degrees as outlined in this Catalog and the Department Graduate Student Handbook. All applicants must be matched to a potential thesis advisor prior to acceptance. This advisor will provide academic advising. Administrative advising is carried out by the graduate advisor, who explains the requirements of the program.

All entering students must take GEOL 500 (Introductory Graduate Seminar) during their first Fall semester. This course consists of lectures and activities to help students focus their research projects and goals and work effectively toward the Advancement to Candidacy.

Students are required to maintain a GPA of 3.0 or higher at all times. If at any time a student's GPA drops below 3.0, that student will immediately be placed on academic probation for a maximum of two semesters. If the student does not bring the GPA back up to 3.0 during the probationary period, he/she will not be allowed to continue as a graduate student in this Department. In order for a student to regain status in the Department after failing to maintain this academic standard, he/she must formally reapply for Department admission.

Advancement to Candidacy

A student must have been advanced to candidacy before the beginning of their third semester. International students must have fulfilled the Graduation Writing Assessment Requirement (GWAR) or taken ENG 301B prior to Advancement to Candidacy. All students must Advance to Candidacy prior to enrollment in GEOL 698: Thesis Units. Requests to graduate must be received during the preceding May for Spring/Summer graduation or preceding December for Fall graduation. Filings after the deadlines are not accepted.

Prior to Advancement, a thesis topic, thesis committee, and graduate program consisting of at least 30 units (see below) must be established by the student and the prospective thesis committee chair. In addition, the following requirements must be met:
1. Completion of all deficiencies and incompletes. This includes courses required in the undergraduate major for the emphasis in which the student is pursuing graduate research, as well as additional courses specified by the thesis advisor.
2. Completion of six units of graduate level courses with a 3.0 or higher grade point average and attainment of a 3.0 or higher grade point average in all upper division and graduate work attempted, as well as in courses to be listed in the student's graduate academic program (see below).
3. A passing grade in GEOL 500.

Advancement to Candidacy includes a successful completion of an oral presentation given by the student to their thesis committee, and acceptance of a written proposal for the thesis research. The student's thesis topic will be the subject of the examination.

Once the above requirements are met, Advancement to Candidacy proceeds with approval of the thesis committee followed by the Department Graduate Advisor, and Associate Dean of Graduate Studies in the College of Natural Sciences and Mathematics. After the student has been advanced, no course work in addition to that specified in the graduate program may be required of the student. In order for a student to change thesis chair/director, topic, committee members, or courses in the graduate program, approvals must be obtained. Under some circumstances this may mean that additional courses are required.

Requirements of Graduate Academic Program

The graduate academic program consists of at least 30 units of courses and is established when the student Advances to Candidacy. The program proposed by the thesis committee chair and the student must be approved by the thesis committee, Graduate Advisor and Associate Dean of Graduate Studies. Six units of GEOL 698 (Thesis) must be taken as part of the program, GEOL 695 (Directed Reading) may account for up to four units. Directed Research, GEOL 697, may account for up to three units, but normally cannot be taken before the student completes 12 units of the graduate program with a grade point average of 3.0 or higher.

A minimum of 21 units of 500 or 600 level courses, including Thesis, must be completed; the remaining units (9 or less) may be 300, 400, 500, or 600 level courses, although courses at 300 level in the Department may not be used in the program. Up to 9 units may be taken at other universities if suitable courses are not offered at CSULB. Appropriate courses from related areas in science, mathematics, or engineering may be substituted within limits with consent of the Department.

Thesis Defense

All M.S. students are required to submit a thesis that conforms to the University and Department guidelines. The thesis should document the systematic study of a significant geological problem; evidence originality and critical, independent thinking; and conform to appropriate and accepted organization, format, and writing style. Each student should discuss thesis format with his/her thesis committee chair.

All M.S. students are also required to present the results of their research orally to members of the department. The student must schedule his/her presentation at least two weeks in advance, and with the approval of the thesis committee. The date of the presentation must precede the semester's thesis submission deadline for which the student plans to graduate.
102. General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent. Recommended: Concurrent enrollment in GEOL 104 or 105.
Broad based introductory study of geology. Broad based introductory study of geology. Structure, composition, distribution, and modification of earth materials and elementary geologic history of the Earth.
(Lecture, demonstration 3 hrs.)

104. Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.
Laboratory study of earth materials.
(Laboratory 3 hrs.)

105. Geology Field Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent, and concurrent or prior enrollment in GEOL 102.
Field trips to areas of geologic significance and field study of earth materials.
May be repeated to a maximum of 3 units with consent of instructor. (Field trips, 6 days per unit.) Course fee may be required for bus trips.

106. Earth Science for Teachers (4)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics, including algebra, geometry, and intermediate algebra or the equivalent.
Introduction to earth science including geology, oceanography, meteorology, solar system and astronomy. Scientific method addressed. Methods of teaching science to K-8 pupils.
Letter grade only (A-F). (Lecture, demonstration 3 hours., laboratory 3 hrs., field trips.)

110. Natural Disasters (3)
Prerequisites/Corequisites: Courses that fulfill the GE A.1 and B.2 requirements. Recommended: Concurrent enrollment in GEOL 110L.
Introductory study of Earth's natural processes that severely impact humans. Includes study of processes causing natural disasters such as earthquakes, volcanic eruptions, landslides, floods, tornadoes, hurricanes, tsunamis, and asteroid impacts.
(Lecture 3 hrs.)

110L. Natural Disasters Laboratory (1)
Prerequisites/Corequisites: Courses that fulfill the GE A.1 and B.2 requirements. Corequisite: GEOL 110.
Laboratory analysis of geological data and field observations of geologic features associated with natural disasters.
Course fee may be required. (Laboratory 3 hrs, field trips.)

160. Introduction to Oceanography (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent. Origin and extent of oceans, nature of ocean floor, and cause and effect of currents, tides, and waves; and life in the ocean.
(Lecture, discussion 3 hrs.)

160L. Introduction to Oceanography Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (MAPB 7) or the equivalent; and previous credit or concurrent registration in GEOL 160.
Field and laboratory study of marine environment. Analysis of maps, plus shore and on-water trips for experience in use of oceanographic instruments. Analysis and interpretation of results.
(Laboratory-field 3 hrs.) Course fee may be required.
300. Earth Systems and Global Change (3)  
Prerequisites: GE Foundation requirement, upper division standing, and CHEM 100 or CHEM 111A or GEOL 102 or GEOL 106 with a grade of "C" or better.  
Interaction of Earth's systems (biosphere, lithosphere, hydrosphere, cryosphere, and atmosphere) and links between life, oceans, climate, and the solid earth. This approach is used to understand important issues confronting society regarding climatic and environmental change.  
Letter grade only (A-F). (Lecture 3 hrs.)

322. Crystallography and Mineralogy (3)  
Prerequisites: GEOL 250; CHEM 111A.  
Morphological and structural crystallography, crystal structure, chemistry, classification, origin, occurrence, and association of minerals reviewed. Analysis and identification of minerals by microscopic, qualitative, chemical, and instrumental means.  
(Lecture 2 hrs., laboratory 3 hrs., field trip)

326. Optical Mineralogy (2)  
Prerequisites: GEOL 250; a passing score on the Chemistry Placement Examination or CHEM 111A;  
Corequisite/Prerequisite: GEOL 322.  
Review of morphological and optical properties of minerals including basics of the nature of light. Use of petrographic microscope in rock and mineral examination.  
Letter grade only (A-F).

339. Introduction to Geomorphology (3)  
Prerequisites: GEOL 102 with GEOL 104 or GEOL 105; or GEOL 106; or GEOG 140.  
Study of landforms and processes producing and modifying them. Emphasis on mechanics of geomorphic processes and relationships between properties of earth materials and forces applied to them by gravity, wind, ice, water, waves, and humans. Conceptual basis of geomorphology addressed.  
Designed for Geology, Geography, Biology, Anthropology, and Civil Engineering majors. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips).

341. Paleontology and Biostratigraphy (4)  
Prerequisite: GEOL 240 and GE Life Science requirement B.1.a.  
Morphologic, systematic, and ecologic aspects of invertebrate fossils; methods and techniques in collection, preparation, illustration, and description of fossils; uses of fossils in stratigraphic work; principles of biostratigraphy.  
(Lecture 3 hrs., laboratory 3 hrs., field trips) Course fee may be required.

350. Spring Field Geology (2)  
Prerequisites: GEOL 250 and GEOL 443 with grades of "C" or better. Prerequisite/Corequisite: GEOL 433.  
Development of proficiency in geological mapping skills.  
Construction of stratigraphic columns and structural cross sections.  
Letter grade only (A-F). (Field trips, 5 days per unit)

370. Geology for Engineers (2)  
Prerequisite: CE 200  
Earth processes and materials which influence the design, construction and operation of engineering works, construction materials. Not open for credit to geology majors.  
(Lecture 2 hrs., field trips.)

420. Geologic Writing (3)  
Prerequisites: GE Foundation completed, upper division standing, GEOL 102, GEOL 104, GEOL 240, GEOL 250; and at least 6 units of Geology courses at 300-level or above. Students must have scored 11 or higher on the GWAR Placement Examination or completed necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.  
A writing-intensive capstone. Writing for a geological audience; writing scientific/geological content at an advanced level emphasized. Journal articles and abstracts reviewed. Includes handling scientific data, distinction between data and interpretation, logic and argument, clarity of style, and types of writing (abstracts, proposals, articles, etc.). Library search methods. Extensive writing, editing, and peer review. Enrollment limited.  
Letter grade only (A-F). (Lecture 1 hr. and laboratory (6 hrs.)

426. Igneous Metamorphic Petrography Laboratory (1)  
Prerequisites: GEOL 322 and GEOL 326;  
Prerequisite/Corequisite: GEOL 428  
Laboratory microscopic analysis of igneous and metamorphic rocks, including fabric and mineral content.  
Letter grade only (A-F). (Laboratory 3 hrs.)

428. Igneous and Metamorphic Petrology and Petrography (3)  
Prerequisites: GEOL 322; CHEM 111A, B.  
Magmatic and metamorphic rock bodies and systems characteristics, including mineralogical and chemical aspects. Fabrics' origin, evolution of igneous and metamorphic rocks, modeling of magma genesis. Microscopic, hand specimen and x-ray analysis of rocks, including fabric and mineral content.  
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips)

433. Structural Geology (4)  
Prerequisites: GEOL 250, GEOL 322; PHYS 151.  
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs., required field trips)

443. Stratigraphy/Sedimentology (4)  
Prerequisites: GEOL 240, GEOL 322.  
Introduction to sedimentology and stratigraphy, flow mechanics and sedimentary structures, laboratory and field methods for the description and classification of sedimentary rocks, depositional systems, sequence stratigraphy, subsurface stratigraphic methods, sedimentation and tectonics, and preparation of sedimentologic field reports.  
Not open for credit to students with credit in GEOL 343. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs., required field trips)

444. Engineering Geology (4)  
Prerequisites: GEOL 250, GEOL 433; MATH 122, MATH 123; PHYS 151, PHYS 152.  
In depth study of the fundamentals of engineering geology and related hazards. Topics covered include rock and soil mechanics, active faulting, landslides, coastal and fluvial processes.  
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.; field trips.)
445. Paleoclimatology (4)
Prerequisites: ESP 200 or GEOG 340 and GEOG 200 (or equivalent) or consent of instructor.
Methods and theories used in reconstructing and dating climates of the past 2 million years, using such proxies as sediment sequences, packrat middens, ice cores, tree rings, corals, and documentary data. Causes of environmental change and human interactions are analyzed.
Letter grade only (A-F). Same course as GEOG 445. Not open for credit to students with credit in GEOG 445. (Lecture 3 hours, lab activities 2 hours)

450. Summer Field Geology (4)
Prerequisites: GEOL 350, GEOL 428, GEOL 433, and GEOL 443.
An integrative learning capstone. Four weeks of geological field mapping at a selected area. Preparation of geological reports of the field problems.
(Lecture as needed, daily field work)

460. Introduction to Geophysics (3)
Prerequisites: PHYS 151, PHYS 152; and MATH 123, all with a grade of “C” or better.
Introduction to geophysics; principles and processes; methods of investigation.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips.)

461. Introduction to Geochemistry (3)
Prerequisites: CHEM 111A,B and MATH 123.
Abundance and migration of elements in the earth; chemical processes in evolution of earth and its crust including geochemistry of organic compounds.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

462. Physics and Chemistry of the Earth’s Interior (3)
Prerequisites: GEOL 240, GEOL 428; PHYS 152.
Structure and composition of the Earth’s interior. Origin and evolution of the Earth. Review of geophysical data, petrologic analyses, and other types of evidence for Earth structure and compositional models.
Letter grade only (A-F). (Lecture 3 hrs.)

465. Physical and Chemical Oceanography (3)
Prerequisites: CHEM 111B; PHYS 100A or PHYS 151, and upper division standing in the College of Natural Sciences and Mathematics or Engineering.
Physics and chemistry of the oceans, carbon cycle; minor and trace elements in sea water, nutrients, water masses and currents; physical concepts and interpretative theories related to ocean circulation.
Letter grade only (A-F). (Lecture 3 hrs.)

466. Oceanography Laboratory and Ocean Studies (1)
Prerequisite/Corequisite: GEOL 465.
Analysis and interpretation of oceanographic data, acquisition of data at sea on field trip, and post-cruise analysis and presentation of results.
Not open for credit to students with credit in GEOL 462.
(Laboratory 3 hrs., sea trips.)

474./574. Physical Hydrology (3)
Prerequisites: GEOL 102, MATH 122; PHYS 151. (Undergraduates enroll in GEOL 474; graduates enroll in GEOL 574.)
Quantitative study of the terrestrial water cycle; prediction and measurement of precipitation, surface water, soil water, and groundwater.
Letter grade only (A-F). (Lecture 2 hrs, lab/field trips 3 hrs)

477./577. Hydrogeology (4)
Prerequisites: GEOL 102, GEOL 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; graduates enroll in GEOL 577.)
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

489. Current Topics in Geological Sciences (3)
Prerequisite: Consent of instructor.
Topics of current interest in the geological sciences selected for intensive development.
May be repeated to a maximum of 6 units. Field trips may be required. (Lecture 2 hrs., laboratory 3 hrs.)

490. Current Topics in Geological Sciences (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in the geological sciences selected for intensive development.
May be repeated to a maximum of 6 units. Field trips may be required.

496. Investigations in Geology and Other Earth Sciences (1-4)
Prerequisites: Senior standing in geology, earth science or related fields, completion of an upper division course in geology or earth science in the area of the topics chosen and approval of the topic chosen by the Geological Sciences faculty.
Supervised research in geology or the other earth sciences. Field trips may be required.

GRADUATE LEVEL

500. Introductory Graduate Seminar (1)
Prerequisite: Graduate standing.
Introduction to graduate policies and faculty research in Geological Sciences. Abstracts on faculty presentation required of all students.
Course cannot be counted for program requirements for the M.S degree in Geology. Credit/No Credit grading only. May be repeated to a maximum of 3 units. (Seminar 1 hr.)

510. Biogeochemical Cycles (3)
Study of carbon, nitrogen, phosphorus, iron, and sulfur cycles among the bio-, hydro-, and geospheres with an emphasis on transfer rates, mass balance, and residence times. Evaluation of processes and interactions among key ecosystems (wetlands, rivers, ocean, lakes, estuaries).
Letter grade only (A-F). (Lecture 3 hrs.)

524. Sedimentary Petrology (4)
Prerequisites: GEOL 322 and GEOL 443.
Microscopic and macroscopic study of the origin and diagenesis of sedimentary rocks. Identification of grain types, textures, structures, and cements emphasizing provenance, tectonics, paleoenviornmental reconstructions, and post-depositional alteration.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

530. Seminar in Structural Geology and Tectonics (3)
Prerequisite: GEOL 433.
Review of analysis, interpretation and origin of geologic structures, mechanics of rock deformation and of large scale crustal deformation.
(Lecture 2 hrs., laboratory 3 hrs.; field trips.
531. Tectonic Geomorphology (4)
Prerequisite: GEOL 433.
Observation and analysis of Earth surface processes, and development of landforms and landscape. Interaction between surficial processes and tectonic, biologic, hydrologic, climatic, and atmospheric processes. Tectonic generated landforms, earthquake hazards evaluated, and geomorphic assessment. Assessing problems including landforms and environmental hazards.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trips).

537. California Geology (3)
Prerequisites: GEOL 433, GEOL 450.
Examination of recent theories concerning evolution of California’s geological provinces; geological, geochemical, and geophysical evidence for these theories.
Letter grade only (A-F). (Lecture 3 hrs., field trips.)

541. Seminar on Mass Extinctions (3)
Prerequisites: GEOL 341, 443, 461.
Study of the nature, causes, and stratigraphic record of mass extinction events in Earth history.
Letter grade only (A-F). (Seminar 3 hrs.)

543. Seminar on Integrated Stratigraphy (3)
Prerequisites: GEOL 341, 443, 461.
Study of all stratigraphic subdisciplines and their integrated use for effecting high-resolution stratigraphic correlations.
Letter grade only (A-F). (Seminar 3 hrs.)

554. Environmental Geochemistry (3)
Prerequisites: CHEM 111B and consent of instructor.
Letter grade only (A-F). (Lecture 3 hrs., field trips)

555. Stable Isotopes (3)
Prerequisites: GEOL 102, CHEM 111B.
Fractionation of stable isotopes, mass spectrometry, application of stable isotopes to geologic, ecologic, and archaeological studies such as paleoclimatology, petrologic studies, paleoecot analysis.
Letter grade only (A-F). Lecture 3 hrs.

570. Special Topics in Geology (3)
Prerequisite: Consent of instructor.
Investigation of selected topics in geology. May be repeated to a maximum of 9 units toward any single degree with different topics. Seminars with field trips as appropriate.
Letter grade only (A-F). (Seminar, 3 hrs.) May be repeated to a maximum of 9 units with different topics in different semesters.

571. Contaminant Hydrogeology (3)
Prerequisites: GEOL 102, GEOL 104, GEOL 477/577; CHEM 111B; PHYS 152; MATH 123.
Study and prediction of groundwater pollution transport, reaction, and remediation.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

574/J474. Physical Hydrology (3)
Prerequisites: GEOL 102, MATH 122; PHYS 151. (Undergraduates enroll in GEOL 474; graduates enroll in GEOL 574.)
Quantitative study of the terrestrial water cycle; prediction and measurement of precipitation, surface water, soil water, and ground water.
Letter grade only (A-F). (Lecture 2 hrs, lab/field trips 3 hrs)

575. Advanced Topics in Sedimentology (3)
Prerequisite: Consent of instructor.
Investigation of topics in sedimentology such as depositional facies analysis, basin evolution, coastal processes, fluvial processes, advanced stratigraphic analysis, and tectonics and sedimentation.
Content varies form year to year. May be repeated to a maximum of 9 units toward any single degree with different topics in different semesters. Letter grade (A-F). Seminars with field trips as appropriate. (Seminar 3 hrs.)

577./477. Hydrogeology (4)
Prerequisites: GEOL 102, GEOL 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates enroll in GEOL 477; graduates enroll in GEOL 577.)
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

579. Applied Groundwater Modeling (4)
Prerequisites: GEOL 102, GEOL 104, GEOL 477/577; PHYS 152; MATH 123. Recommended: MATH 370A.
Numerical modeling of groundwater flow and mass transport. Emphasis is on creation of numerical models from conceptual models of geology derived from geologic mapping and sampling.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

582. Petroleum Geology and Well Log Analysis (4)
Prerequisites: GEOL 240, GEOL 443.
Geological application in exploration and production of petroleum, including uses of surface and subsurface techniques. Basic well logging techniques employed, including data collection, reduction, interpretation, and integration among various logging methods as well as with surface geology and geophysical data.
(Lecture 2 hrs., laboratory 6 hrs., field trips.)

586. Engineering Geophysics (3)
Prerequisite/Corequisite: GEOL 460.
Applying geophysical techniques to geology and hydrogeology problems. Geophysical techniques, and identification and utilization of specialized techniques. Case histories in site evaluations, subsiding areas, basement topography mapping, seawater problems, water table mapping, groundwater contamination, and subsurface cavities detection.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.)
Course fee may be required.

695. Directed Reading (1-3)
Survey of information in published or unpublished geological literature or databases on a designated topic, under the direction of a faculty member. Written reports prepared from these readings.
May be repeated to a maximum of 4 units toward any single degree with different topics in different semesters. Limited to 3 units per semester. Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Research on a specific subject in geology. Topic for study to be approved and directed by a faculty member in geological sciences.
Letter grade only (A-F).

698. Thesis (1-6)
Prerequisites: Advanced to candidacy for M.S. in Geology, consent of Graduate Committee and graduate advisor.
Either laboratory or field investigations, or both, for a total of six semester units to culminate in an approved thesis.
Letter grade only (A-F).
GERMAN
College of Liberal Arts
Department of Romance, German, Russian Languages and Literatures

Department Chair: Markus Muller
Program Director: Jeffrey High
RGRLL Language Coordinator: Cedric Oliva
Single Subject Coordinator for L.O.T.E.: Cynthia Leathers
Department Office: Academic Services, Room 309
Telephone: (562) 985-4317
http://www.cla.csulb.edu/departments/rgrll/
Faculty: Nele Hempel-Lamer, Jeffrey L. High
Administrative Support Coordinator: Alessandro Russo

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

Career Possibilities
Customs Officer • Immigration Officer • Importer/Exporter
• Foreign Service Officer • International Marketing Representative • Travel Professional • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Teacher Professor • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
German Studies promotes a double major of German and Engineering as well as offering a BA in German Studies with a concentration/certificate in Administration of Travel and Tourism. It also maintains exchange programs with the University of Bielefeld, Essen, Oldenburg, Freiburg (Switzerland), Salzburg (Austria), and all the universities in Baden Württemberg. German students are also eligible to participate in the German-American Business Student Workshop with the Polytechnic University Hamburg, Germany.

Undergraduate Programs

Bachelor of Arts in German (120 units)
In this program, efforts are made to accommodate needs of students who simultaneously pursue many majors including Business, Engineering, or a certificate in Travel and Tourism.
Completion of the German major (plus 6 additional units) meets the subject matter competence requirement for the Single Subject Teaching Credential in German. Prospective students should consult the undergraduate German Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.
Requirements
Lower Division:
One year of intermediate German or equivalent. Students who have completed sufficient high-school German may take upper-division courses as soon as lower-division requirements have been met. Students with AP credit 4 or 5 can enroll immediately in upper division courses. Native speakers of German may not enroll for credit in 101A/B, 201A/B, or 301/302.
Upper Division (minimum 30 units, 36 for Single Subject): Take all of the following courses:

GERM 301 Fiction and Fact: Short Texts (3)
Prerequisite: GERM 201B or equivalent. Intensive practice and the consolidation of the basic language skills: reading comprehension, composition, and conversation.

GERM 302 Language of the German Media (3)
Prerequisite: GERM 201B or equivalent.

GERM 415 Survey of German Literature and Culture I (3)
Prerequisite: GE Foundation requirements.

GERM 416 Survey of German Literature and Culture II (3)
Prerequisite: GE Foundation requirements.

Take 12 units of the following literature and culture courses taught in German:
GERM 430, GERM 440, GERM 450, GERM 458, GERM 459, GERM 460, GERM 480, and GERM 498
Take a minimum of 6 additional units of 300/400-level courses in German, RGR or approved courses from other programs.
Department Recommendations:
• Consult with the major advisor for course selection.
• Studies or an internship in a German-speaking country.

Single Subject Teaching Credential in German
Completion of the German major meets the subject matter competence requirement for the Single Subject Teaching Credential in German. Prospective students should consult the undergraduate German Advisor and the Languages Other Than English (LOTE) Credential Program Advisor early to plan their program.
In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective teachers of German are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.
Requirements
Same as the BA in German but include the following:
GERM 303 German Phonetics (3) (or equivalent)
Prerequisite: Upper-division standing in German or consent of instructor.
GERM 410 History & Stories: German Civilization (3)
(or equivalent)
Prerequisite: Upper-division standing in German.

Minor in German
Requirements: 20 to 36 units, depending on language competency.
Language Competency:
Students must achieve intermediate competency in German equivalent to 201B prior to enrolling in upper division coursework. The total number of lower-division units depends on the student’s existing language competency and can range from 0 to 16 units depending on placement.
Students should consult with the undergraduate advisor regarding demonstration of existing language competency.

Upper Division Requirements:
A minimum of 20 upper division units. The Minor in German is available to any non-German major.

Take the following courses:
GERM 301 Fiction and Fact: Short Texts (3)
Prerequisite: GERM 201B or equivalent. Intensive practice and the consolidation of the basic language skills: reading comprehension, composition, and conversation.
GERM 302 Language of the German Media (3)
Prerequisite: GERM 201B or equivalent.
GERM 415 Survey of German Literature and Culture I (3)
Prerequisites: Completion of GE Foundation requirements and upper-division standing in German.
GERM 416 Survey of German Literature and Culture II (3)
Prerequisite: GE Foundation requirements.

Graduate Programs

Master of Arts in German
Students are encouraged to study at German-speaking universities and the program assists with overseas study plans. For graduate students interested in multimedia teaching technology, the program provides special projects and practical opportunities. Teaching Assistantships are available.

Prerequisites
1. A bachelor of arts degree in German or:
2. A bachelor’s degree with a minimum of 24 units of upper-division courses in German. These courses must be comparable to those required of a major in German at the University. Deficiencies will be determined by the department.

Advancement to Candidacy
Advancement to Candidacy should take place upon completion of at least six units, preferably no more than nine units applicable to the program, with at least a 3.0 GPA.
The program will request advancement to candidacy only after a student has filed a transcript of credits or a change-of-objective form, completed the prerequisites, and fulfillment of the Graduation Writing Assessment Requirement (GWAR).

Requirements
1. Completion of a minimum of 30 units of approved upper-division and graduate courses with 24 units in German;
2. A minimum of 21 units in the 500 and 600 series taken at the CSULB campus in German which must include the following:
GERM 510 The Faces of United Germany: Past, Present, and Future (3)
Prerequisite: Graduate standing in German or consent of Program Director in German.
3. A reading knowledge of French, Italian, Latin, Russian, or Spanish. Another language may be substituted only under special circumstance. In some cases, students may require as many as 16 additional credits to fulfill the second language requirement;
4. A comprehensive examination or, with permission of a Graduate Advisor, a thesis. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

Single Subject Teaching Credential in German
For information, refer to the undergraduate section in this department.

German Courses (GERM)

LOWER DIVISION
101A. Fundamentals of German (4)
Prerequisite/Corequisite: Any GE Foundation course.
Introduction to fundamental skills of speaking, oral comprehension, reading, and writing. For those beginning the study of German or have had one year of high school German or equivalent.
Transfers and new students: placement exam strongly recommended. For further information, refer to department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage or native speakers of German.

101B. Fundamentals of German (4)
Prerequisite: GERM 101A or two years of high school German or equivalent. Corequisite: Any Foundation course.
Fundamental skills of speaking, oral comprehension, reading and writing.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll. For non-native speakers only. Not open to heritage speakers or native speakers of German.
201A. Intermediate German (4)
Prerequisite: GERM 101B or three years of high school German or equivalent. Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading, and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the Department of RGRLL website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of German.

201B. Intermediate German (4)
Prerequisite: GERM 201A or four years of high school German or equivalent. Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading, and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only, and is not open to heritage speakers or native speakers of German.

204. German for Reading Knowledge (3)
Prerequisites: GERM 101A,B or equivalent or consent of instructor.
Concentrates on essentials for translation and is designed chiefly for students in any field who are preparing for reading exams in German.

UPPER DIVISION

301. Fiction and Fact: Short Texts (3)
Prerequisite: GERM 201B or equivalent.
Intensive practice and the consolidation of the basic language skills: reading comprehension, composition, and conversation. Emphasis on reading, comprehension, vocabulary building, and idiomatic usage.

302. Language of the German Media (3)
Prerequisite: GERM 201B or equivalent.
Intensive practice and the consolidation of basic skills: reading, comprehension, composition, and conversation. Emphasis on composition, oral reports, and discussion.

303. German Phonetics (3)
Prerequisite: Upper-division standing in German or consent of instructor.
General concepts of linguistic science. Linguistics applied to the study and teaching of the German language. Articulatory phonetics as a means to form native German pronunciation habits with emphasis upon the difficulties encountered by speakers of American English.

305. Advanced German Conversation (3)
Prerequisite: Upper-division standing in German.
An intensive practice of spoken German with stress on vocabulary building, pronunciation, intonation, and oral comprehension. Tandem courses taken abroad do not count for GERM 305.

306. Translating German to English (3)
Prerequisite: Upper-division standing in German or consent of instructor.
The preparation of translations from German texts of wide-ranging subject matter.

370. German Literature in English (3)
Study of significant German writers. German literary movements, or a specific literary genre in English translation.
May be repeatable for 6 units in different semesters. Not open for credit to students with credit in GERM 470.

380. Contemporary Germany, Society, and Culture (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Germany today presents a unique case study for difficulties and complexity of a unification process. Aspects of historical and cultural legacy and the social and political reality are approached through factual texts and fiction. Taught in English.

398. Selected Topics in German (3)
Prerequisite: Upper-division standing in German or consent of instructor.
Exploration of topics in language, culture, and literature.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

401. Advanced German Syntax and Composition (3)
Prerequisite: GERM 301, GERM 302. Practice in developing a style and vocabulary suitable for the writing of reports and essays on cultural and literary topics.
May be repeated to a maximum of 6 units.

410. History and Stories: German Civilization (3)
Prerequisite: Upper-division standing in German.
Historical development of important German institutions, customs and thought.

415. Survey of German Literature and Culture I (3)
Prerequisites: Completion of GE Foundation requirements and upper-division standing in German.
German literature from the Middle Ages to the time of Goethe as related to the other arts, to philosophy, and to the social and political institutions of the time.

416. Survey of German Literature and Culture II (3)
Prerequisite: GE Foundation requirements.
German literature from Romanticism to the present as related to the other arts, to philosophy, and to the social and political institutions of the time.

430./530. German Poetry (3)
Prerequisite: Upper-division standing in German.
German poetry from the Baroque to the present.

440. German Novella in Context (3)
Prerequisite: Upper-division standing in German.
The German Novella as a separate literary genre, represented by Goethe, Tieck, Kleist, Keller, Meyer, Storm, Spielhagen, Hesse, Kafka, Thomas Mann, and others.

450./550. Reason, Revolution, Reaction (3)
Prerequisite: Upper-division standing in German.
Literary trends of the 18th century, with emphasis on Lessing, Wieland, Klopstock, Herder, Goethe and Schiller and the authors from “Sturm und Drang” to Romanticism. Letter grade only (A-F).

458. Road to Modernity (3)
Prerequisite: Upper-division standing in German.
Representative literary works of the “Biedermeier,” “Junges Deutschland” and “Poetischer Realismus” against the background of the historical, philosophical, and cultural movements of the times. Letter grade only (A-F).

459./559. German Literature from 1890-1945 (3)
Prerequisite: Upper-division standing in German.
Major German prose, drama, and poetry from Naturalism to the end of World War II.
May be repeatable for 6 units in different semesters.
460./560. Two Perspectives: 1945 to 1990 (3)
Prerequisite: Upper-division standing in German.
Significant contemporary German writers of prose, drama and poetry in the context of the divided Germany.
Letter grade only (A-F).

480. German Cinema (3)
Prerequisite: Upper-division standing.
Familiarizes students with the art of the medium, and the history of German film, particularly as it is realized through the work of the artist most responsible for its success or failure, in this case, the director.
Letter grade only (A-F). Same course as FEA 457. Not open for credit to students with credit in FEA 457. (2 hrs seminar, 2 hrs activity)

494. Internship in German (1-3)
Prerequisites: Consent of instructor and department chair.
Field work in German, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in German.

498. Selected Topics in German (3)
Prerequisites: Senior standing in German or consent of instructor.
Exploration of topics in language, culture, and literature.
May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)
Prerequisites: Consent of instructor and department chair.
Independent study undertaken under the supervision of a faculty member. May be repeated to a maximum of 6 units in the same semester.

GRADUATE LEVEL

510. The Faces of United Germany: Past, Present, and Future (3)
Prerequisite: Graduate standing in German or consent of Program Director in German or consent of Graduate Advisor in the German Studies.
The course locates the present concentration of international research in the discipline and requires individual research, presentation of findings, and a substantive paper.
Letter grade only (A-F).

530./430. German Poetry (3)
Prerequisite: Graduate standing in German.
German poetry from the Baroque to the present.
Letter grade only (A-F).

540. German Novella (3)
Prerequisite: Graduate standing in German.
The German Novella as a separate literary genre, represented by Goethe, Tieck, Kleist, Keller, Storm, Spielhagen, Hesse, Kafka, Thomas Mann, or others.
Letter grade only (A-F).

550./450. Reason, Revolution and Romantic Thought (3)
Prerequisite: Upper-division standing in German.
Literary trends of the 18th century, with emphasis on Lessing, Wieland, Klopstock, Herder, Goethe and Schiller and authors from “Sturm und Drang” to Romanticism.
Letter grade only (A-F).

558. Road to Modernity (3)
Prerequisite: Upper-division standing in German.
Representative literary works of the “Biedermeier,” “Junges Deutschland” and “Poetischer Realismus” against the back-ground of the historical, philosophical, and cultural movements of the times.
Letter grade only (A-F).

559./459. German Literature from 1890-1945 (3)
Prerequisite: Upper-division standing in German.
May be repeatable for 6 units in different semesters.

560./460. Two Perspectives: 1945 to 1990 (3)
Prerequisite: Upper-division standing in German.
Significant contemporary German writers of prose, drama and poetry in the context of the divided Germany.
Letter grade only (A-F).

590. Theoretical Approaches (3)
Prerequisite: B.A. in German or equivalent.
Evaluation of various methods in interpreting a literary work of art; different levels of interpretation; concepts of literary movements; complexity of structure related to content; literary appreciation; introduction to bibliographical aids.
May be repeated to a maximum of 9 units with different topics.
Letter grade only (A-F).

598. Selected Topics in German (3)
Prerequisites: B.A. in German or equivalent.
Selected topics in German to be pursued in depth.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.

599. Directed Studies (1-3)
Prerequisites: Graduate standing and consent of instructor and department chair.
Consent of instructor and chairperson or graduate advisor.
Selected topics in German to be pursued in depth.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F).

653. Selected Topics - Seminar in a Century of German Literature (3)
Letter grade only (A-F). May be repeated to a maximum of 9 units in different topics in different semesters. Topics announced in the Schedule of Classes.
A. Century of German Literature
B. 18th Century Classicism
C. 19th Century Classicism
D. 20th Century German Literature

697. Directed Research (1-3)
Prerequisite: Graduate standing and consent of instructor and department chair.
Selected topics in German to be pursued in depth.
May be repeated to a maximum of 6 units with different topics.
Letter grade only (A-F).

698. Thesis (1-4)
Prerequisite: Consent of graduate advisor.
Planning, preparation, and completion of a thesis. Does not count toward 30 units required for the M.A. degree.
GERONTOLOGY
College of Health and Human Services

Director: Barbara White
Department Office: Family and Consumer Sciences Faculty (FCS) Addition, Room 014
Telephone / FAX: (562) 985-1582 / 985-4414
Email: barbara.white@csulb.edu
Administrative Support Coordinators: Mikal Lok
Instructional Support Technician: Bonnie Rice

Career Possibilities

General: social services agencies; health care institutions; government agencies; retirement communities; educational and research settings; professional organizations; business and industry; religious organizations; the arts and sciences.
Direct Service: developing programs; providing direct care; teaching in community settings; counseling; advising about estate planning, long-term care administration; advocating for older adults.
Indirect Service: analyzing issues related to older persons; planning, administering, and evaluating community-based and health related services; writing grants; teaching; advocating before legislative bodies; designing products; developing marketing strategies; consulting.

Introduction

Gerontology is the scientific study of the processes and phenomena of aging. The Gerontology Program's mission is to improve the lives of middle aged and older individuals; provide training, consultation and other services; and conduct research.

The Gerontology Program is enhanced by the Gerontology Faculty Interest Group, the Center for Successful Aging and a chapter of Sigma Phi Omega, The National Academic Honor and Professional Society in Gerontology. Students in the Gerontology Program are eligible for membership in Sigma Phi Omega.

The Center for Successful Aging is part of a complex of centers and organizations on the campus of California State University, Long Beach that are involved with aging-related issues. The Center is a transdisciplinary academic/community partnership to promote collaborative innovations in education, practice, policy development and research.

Master of Science in Gerontology

Interested students should contact Dr. Barbara White at 562-985-1582 or barbara.white@csulb.edu

This program is designed to prepare students with a thorough background in existing theory and research in gerontology, advanced principles of program management, and enhanced baccalaureate preparation for their professional discipline.

Admission Requirements

1. Complete the application form to be admitted to the university with graduate standing;
2. Send the following materials to the Gerontology Program, in addition to those sent to the Office of Enrollment Services:
   • Three letters of recommendation reflecting academic potential, personal qualifications, sensitivity, and evidence of ability and motivation to work with older adults and professionals in the field of aging,
   • A current resumé, including education, employment, and volunteer activities,
   • A personal statement of interest in aging and career goals in the field.

Admission to the program is contingent on approval by the Gerontology Program Director.

Prerequisites

1. A bachelor’s degree from an accredited institution.
2. Evidence of a 3.0 or better grade point average in all undergraduate work. Students with less than a 3.0 grade point average in the last 60 undergraduate semester or 90 quarter units attempted but with evidence of professional promise and experiential background may be admitted conditionally by action of the Program Director.
3. Successful completion of the following courses or their approved substitutes:
   Take the following courses:
   • GERN 400 Perspectives on Gerontology (3) may be taken upon program admission
   • an approved upper-division statistics course may be taken within the first year of the program.

Retention

1. Maintain a 3.0 or better grade point average in all graduate work completed at CSULB and all approved graduate work transferred to meet graduate requirements.
2. Continuous satisfactory progress toward the degree objective.

Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy.
2. Fulfill the Graduation Writing Assessment Requirement (GWAR)
3. Complete a minimum of six units of graduate level coursework in gerontology
4. Be enrolled during the term in which advancement to candidacy takes place.
5. Obtain approval for one's individual program plan from the Gerontology Program Director and then from the Associate Dean of the College of Health and Human Services.
Requirements

**Thesis Option**
Completions of a minimum of 36 units, with at least 28 units of 500 and/or 600 series in Gerontology, including:

- Take all of the following courses:
  - GERN 500 Introduction to the Professional Practice of Gerontology (3)
    - Prerequisites/Co-requisites: GERN 400 or equivalent; graduate standing or consent of instructor.
  - GERN 563 Program Evaluation (3)
    - Prerequisites: Upper division or graduate course in statistics; GERN 696 (may be taken concurrently) or equivalent.
  - GERN 582 Health Assessment of the Aging Client (3)
    - Prerequisites: GERN 400 or equivalent and graduate standing or consent of instructor.
  - GERN 592 Internship in Family and Consumer Sciences/Gerontology (3)
    - Prerequisites: Graduate standing and consent of instructor.
  - GERN 600 Seminar in Leadership and Administration (3)
    - Prerequisites: Graduate standing.
  - GERN 696 Research Methods (3)
    - Prerequisites: Upper-division course in statistics.
  - GERN 697 Directed Research (3)
    - Prerequisites: Advancement to candidacy; GERN 500-level courses in area of study, and GERN 696.
  - GERN 698 Thesis (3)
    - Prerequisites: GERN 697, advancement to candidacy.

A maximum of nine units may be taken outside of the major.

**Directed Project Option**
Completion of a minimum of 36 units with at least 28 units of 500 and/or 600 series in Gerontology, including:

- GERN 500 Introduction to the Professional Practice of Gerontology (3)
  - Prerequisites/Co-requisites: GERN 400 or equivalent; graduate standing or consent of instructor.
- GERN 563 Program Evaluation (3)
  - Prerequisites: Upper division or graduate course in statistics; GERN 696 (may be taken concurrently) or equivalent.
- GERN 582 Health Assessment of the Aging Client (3)
  - Prerequisites: GERN 400 or equivalent and graduate standing or consent of instructor.
- GERN 592 Internship in Family and Consumer Sciences/Gerontology (3)
  - Prerequisites: Graduate standing and consent of instructor.
- GERN 600 Seminar in Leadership and Administration (3)
  - Prerequisites: Graduate standing.
- GERN 692 Gerontology Directed Project (3)
  - Prerequisites: GERN 697.
- GERN 696 Research Methods (3)
  - Prerequisites: Upper-division course in statistics.
- GERN 697 Directed Research (3)
  - Prerequisites: Advancement to candidacy; GERN 500-level courses in area of study, and GERN 696.

A maximum of nine units may be taken outside the major.

Certificate in Gerontology

**Requirements**

1. Consult with the Gerontology Certificate Coordinator to add the Certificate in Gerontology to the major program of study.
2. A bachelor's degree in any major (may be taken concurrently)
3. A minimum GPA of 2.5
4. 24 units distributed as follows
   - A. Take 15 required units including the following:
     - GERN 400 Perspectives on Gerontology (3) (meets GE Capstone requirement)
     *"C" or better required.
     - GERN 401 Human Aging (3)
     *"C" or better required.
     - ANTH 454 Culture and Aging (3)
     *"C" or better required.
     - PSY 365 Psychology of Adult Development and Aging (3)
     *"C" or better required.
     - GERN 492G Internship in Gerontology (3)
     *Prerequisites: PSY 100.
     - PSY 365 Psychology of Adult Development and Aging (3)
     *"C" or better required.
     - HDEV 357 Approaches to Adulthood Through Aging (3)
     *"C" or better required.
   - B. Take a minimum of nine units chosen in consultation with the Gerontology Certificate Coordinator from a list of approved elective courses (three to six units of appropriate coursework in the major field may partially fulfill this requirement). Three units may be fulfilled by taking GERN 497 or an approved substitute.
   - 5. Application for the Certificate in Gerontology through completion of the appropriate Program Planner in consultation with the Gerontology Certificate Coordinator. This must be done in the semester prior to the completion of the certificate.
LOWER DIVISION

200. The Journey of Aging (3)
Prerequisite: Any GE Foundation course.
Exploration of the field of gerontology from the perspectives of biological, psychological, and social aging in the U.S. and around the world. Topics include retirement, images of aging, and the numerous ways gerontology impacts all aspects of society.

UPPER DIVISION

400. Perspectives on Gerontology (3)
Prerequisites: GE Foundation, one or more Exploration courses, and upper-division standing.
Multidisciplinary study of middle age and aging. Includes physiological, psychological, political, economic and sociological aspects. Effects of culture and environment on aging; history and demographics; health issues.
Letter grade only (A-F). (Lecture-discussion, 3 hours.)

401. Human Aging (3)
Prerequisite: GERN 400 or equivalent and upper division standing or consent of instructor.
For non-science majors, presents the biochemical, genetic, and physiological theories of normal aging, and common pathologies distinguished from expected changes with aging. Diagnosis, treatment, and prevention of common diseases are presented as well as current research on human aging.
Letter grade only (A-F). (Lecture-discussion, 3 hours.)

420./520. Personal Finance for the Aging (3)
Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as CAFF 420. Not open for credit to students with credit in CAFF 420. (Lecture-discussion, 3 hrs)

430./530. Aging and Dementia (3)
Prerequisites: GERN 400, HDEV 357 or PSY 365, or graduate standing, or consent of instructor.
An examination of physiological, psychological, social and economic aspects of dementia and its impact on the individual, the family and society. Community resources, current research and policy issues are included, with a particular emphasis on Alzheimer’s disease.

439./539. Nutrition and Aging (3)
Prerequisites: NUTR 132 or BIOL 207 or BIOL 301 or GERN 400 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older adults.
Letter grade only (A-F). Same course as NUTR 439. Not open for credit to students with credit in NUTR 439.

440. End of Life Issues for Older Adults and Their Families (3)
Prerequisite: Upper division standing.
Multidisciplinary approaches to death/dying in the context of the biopsychosocial model. Explores cross-cultural perspectives, the funeral industry, advanced planning, ethics, hospice, suicide, euthanasia, and grief.

469./569. Disability, Culture and Society: Issues and Intervention (3)
Prerequisites: Senior or graduate standing.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Letter grade only (A-F). Same course as REC 469. Not open for credit to students with credit in REC 469 or SW 469.

474. Global Aging (3)
Prerequisite: GERN 400.
Course Description: Examines aspects of individual and societal aging around the world, including demography of aging, cultural perspectives, work and retirement, social welfare, health care, morbidity and mortality, long term care, caregiving, and death and dying.
Not open for credit to students with credit in GERN 574. (Lecture-activity 3 units)

482. Health Assessment of the Aging Client (3)
Prerequisites: GERN 400 or equivalent and upper division standing or consent of instructor.
Assessment of the physical, psychological and social status of the aging client as they affect health and well-being. Focuses on working with aging clients in a variety of settings to identify actual or potential health-related problems using various techniques.
Same course as NRSG 482. Not open for credit to students with credit in NRSG 482. (Lecture-discussion, 3 hours) Course fee may be required.

492G. Internship in Gerontology (3)
Prerequisites: Student must be a Gerontology Certificate candidate; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of the Gerontology Certificate Coordinator; and GERN 400, ANTH 454, PSY 365 or HDEV 357. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. Same course as FCS 492G. Not open for credit to students with credit in FCS 492G. (Seminar 3 hours)

497. Directed Studies (1-3)
Prerequisites: GERN 400, ANTH 454, PSY 365 or HDEV 357. Each prerequisite GPA; approval of the Gerontology Certificate Coordinator; and upper-division standing and consent of program director.
Independent study under the supervision of a faculty member. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. Same course as FCS 497.

499. Selected Topics in Gerontology (1-3)
Group investigation of topics of current interest in gerontology. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

Letter grade only (A-F). (Lecture-discussion 3 hours)
500. Introduction to the Professional Practice of Gerontology (3)
Prerequisite/Corequisite: GERN 400 or equivalent; graduate standing or consent of instructor.
Graduate level introduction to the professional practice of Gerontology. Emphasis is on application of theoretical concepts, research in practice, ethics, career path exploration, and development of leadership career related skills and resources.
Letter grade only (A-F).

520./420. Personal Finance for the Aging (3)
Prerequisites: 400-level course in Consumer Affairs or consent of instructor.
Personal finance as applied to the aging population.
Same course as FCS 520. Not open for credit to students with credit in FCS 520. Letter grade only (A-F). (Lecture-discussion 3 hours)

530./430. Aging and Dementia (3)
Prerequisites: GERN 400, HDEV 357 or PSY 365, or graduate standing, or consent of instructor.
An examination of physiological, psychological, social and economic aspects of dementia and its impact on the individual, the family and society. Community resources, current research and policy issues are included, with a particular emphasis on Alzheimer’s disease.

539./439. Nutrition and Aging (3)
Prerequisites: NUTR 132 or BIOL 207 or BIOL 301 or GERN 400 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older adults.
Letter grade only (A-F). Same course as FCS 539. Not open for credit for students with credit in NUTR 439, FCS 539, or GERN 439.

540. End of Life Issues for Older Adults and Their Families (3)
Prerequisite: Graduate standing.
Multidisciplinary approaches to death/dying in the context of the biopsychosocial model. Explores cross-cultural perspectives, the funeral industry, advanced planning, ethics, hospice, suicide, euthanasia, and grief.
Letter grade only (A-F).

550. Social Policy and Aging (3)
Prerequisite: GERN 400, HDEV 357 or PSY 365, and ANTH 454 or consent of instructor.
Major legislation and policies affecting older Americans. Analyses of policy information and change, kinds of data, and social forces that affect development and implementation of aging-related policies and legislation.

563. Program Evaluation (3)
Prerequisites: Upper division or graduate course in statistics; GERN 696 (may be taken concurrently) or equivalent.
Principles, design, and methods of program evaluation for use by Family and Consumer Sciences and Gerontology professionals. Selection and development of instrumentation for data collection and interpretation and methods of reporting.
Letter grade only (A-F). Same course as FCS 563. Not open for credit to students with credit in FCS 563. (Seminar 3 hours)

569./469. Disability, Culture and Society: Issues and Social Intervention (3)
Prerequisites: Senior or graduate standing.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Letter grade only (A-F). Same course as REC 569. Not open for credit to students with credit in GERN 474.

574. Global Aging (3)
Prerequisite: Graduate standing
Examines aspects of individual and societal aging around the world, including demography of aging, cultural perspectives, work and retirement, social welfare, health care, morbidity and mortality, long term care, caregiving, and death and dying.
Letter grade only (A-F). Not open for credit to students with credit in GERN 482.

582. Health Assessment of the Aging Client (3)
Prerequisite: GERN 400 or equivalent and graduate standing or consent of instructor.
Assessment of the physical, psychological and social status of the aging client as they affect health and well-being. Focuses on working with aging clients in a variety of settings to identify actual or potential health-related problems using various techniques.
Letter grade only (A-F). Not open for credit to students with credit in GERN 482 or NRSG 482.

592. Internship in Family and Consumer Sciences/ Gerontology (3)
Prerequisite: Graduate standing and consent of instructor.
Field experience in which student assumes a self directed responsible role in an agency, business or other community setting. May be repeated to a maximum of 6 units. (Seminar 3 hours) Letter grade only (A-F).

597. Independent Study (1-3)
Prerequisites: Graduate standing and consent of instructor.
Independent study under the supervision of a faculty member. Exploration or experience supplementing and/or complementing regular courses to meet student learning goals. May be repeated for a maximum of six units in different semesters. Letter grade only (A-F).

599. Selected Topics in Gerontology (1-3)
Prerequisites: Graduate standing
Group investigation of topics of current interest in gerontology. May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

600. Seminar in Leadership and Administration (3)
Prerequisite: Graduate standing
Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Decision-making, organizational structures and evaluation concepts included.
Letter grade only (A-F). Same course as FCS 600. Not open for credit to student with credit in FCS 600.

692. Gerontology Directed Project (3)
Prerequisite: GERN 697.
Students will acquire experiential skills under the guidance of a faculty advisor and supervisor/preceptor at an approved project site. Student will identify problems, design and assess a project or conduct research. Results will be presented in a thesis-style report. Letter grade only (A-F).
696. Research Methods (3)
Prerequisite: Upper-division course in statistics.
Methodological approaches to contemporary research issues in Family and Consumer Sciences. Course focuses on the design, development, and implementation of a formal research-designed project.
Letter grade only (A-F). (Seminar 3 hours) Same course as FCS 696. Not open for credit to students with credit in FCS 696.

697. Directed Research (3)
Prerequisite: Advancement to candidacy, GERN 500-level courses in area of study, and GERN 696.
Independent investigation of research problems under the direction of a faculty member.
Letter grade only (A-F).

698. Thesis (3)
Prerequisite: GERN 697, advancement to candidacy.
Planning, preparation and completion of a thesis under supervision of a faculty member. Approval of thesis committee.
Letter grade only (A-F).
GLOBAL LOGISTICS
College of Liberal Arts
Department of Economics

Director: Seiji S.C. Steimetz
Department Office: Social Science/Public Affairs (SS/PA), Rm 361A
Telephone: (562) 985-5061
Email: magl@csulb.edu
Website: www.csulb.edu/economics
FAX: (562) 985-5804
Graduate Advisor/Associate Director: Wade E. Martin
Faculty: Omer Benli, Burkhard Englert, Elaine Frey, Jack Hou, Shui Lam, Joseph P. Magaddino, Wade E. Martin, Kristen A. Monaco, Khosrow Moshirvaziri, Chen Ng, Seiji S.C. Steimetz, Steve Yamarik, Guy Yamashiro

Career Possibilities
Purchasing Manager • Fleet Manager • Transportation Manager • Logistics Director • Supply Chain Manager • Customer Account Manager • Warehouse Manager • Business Analyst • Decision Support Manager • Demand Management Specialist (For more information, see www.careers.csulb.edu)

Prerequisites
1. A bachelor’s degree with a grade-point average of 2.75 or better. A student whose overall grade-point average is less than 2.75, but who possesses a strong employment history in supply chain management or logistics or who possesses a recent record of academic excellence by completion of certificate or other coursework, may be admitted by special action of the Admissions Committee.
2. Students are required to submit: a completed application form; two letters of recommendation from members of the academic profession under whom the applicant studied or from individuals in positions of leadership with whom the applicant worked; and a statement of the applicant’s interest in pursuing a career in global logistics. Students are also required to submit scores from the Graduate Record Examination (GRE).

Advancement to Candidacy
Satisfy the general requirements of the University for advancement to candidacy.

Requirements
Completion of a minimum of 33 units beyond the bachelor’s degree and graduate coursework as follows:

1. Core requirements (16 units), satisfactory completion of:
   - ECON 500 Business Economics (3) Prerequisites: None
   - ECON 555 Transportation Economics (3) Prerequisites: None
   - GLG 540 Benefit-Cost Analysis for Logistics (2) Prerequisites: Consent of instructor.
   - GLG 556 Economics of Logistics Management (3) Prerequisite: ECON 500.
   - GLG 560 Research Methods for Global Logistics (3) Prerequisite: ECON 500.

   GLG 570 International Trade & Finance for Logistics (2) Prerequisites: Consent of instructor.

2. Satisfactory completion of at least one course in each of the following four emphases (11 units):
   A. Quantitative Analysis in Logistics, one of the following:
      - CECS 552 Computer Simulation and Modeling (3) Prerequisites: EE 380 (or MATH 380) and CECS 326.
      - GLG 690 Selected Topics in Global Logistics (1-3) Prerequisites: Consent of instructor.
   B. Forecasting for Logistics, take the following:
      - GLG 520 Forecasting (2) Prerequisites: GLG 560.
   C. Advanced Topics in Logistics, one of the following:
      - GLG 530 Introduction to Optimization Methods in Transportation (3) Prerequisites: ECON 500.
      - CECS 590 Selected Topics in Computer Science (3) Prerequisites: Graduate standing and consent of instructor.
   D. Seminar in Global Logistics, take the following:
      - ECON 666 Seminar in Transportation Economics (3) Prerequisites: ECON 510, ECON 511, ECON 555, ECON 585, ECON 586, and ECON 587.

3. Practical Applications of Logistics, take the following:
   - GLG 595 Field Studies Practicum in Logistics (3) Prerequisites: Consent of instructor.

4. Complete the following:
   - GLG 655 Seminar in Global Logistics (3) Prerequisites: Completion of at least 27 units in the M.A.G.L.

Global Logistics Courses (GLG)

520. Forecasting (2)
Prerequisites: GLG 560.
A comprehensive introduction to forecasting in economics and business. Topics covered include statistical graphics, trends, seasonality, cycles, forecast construction, forecast evaluation and forecast combination.
Letter grade only (A-F).

530. Introduction to Optimization Methods in Transportation (3)
Prerequisites: ECON 500.
Optimization methods applied to transportation problems. Introduction to optimization, simple calculus-based function optimization, linear programming, simplex method and computer based solution of linear programming problems. Introduction to network flow, dynamic programming. Practical considerations for large problems; optimal and near optimal solutions.
Letter grade only (A-F).

540. Benefit-Cost Analysis for Logistics (2)
Prerequisites: Consent of instructor.
Introduces benefit-cost analysis. Discussion of private costs and benefits, social costs and benefits, and project analysis.
Letter grade only (A-F).
556. Economics of Logistics Management (3)
Prerequisite: ECON 500.
Analysis and design of domestic and international logistics systems. Topics include: transportation, warehousing, inventory control, materials management, systems design and organization.
Not open for credit to students with credit in ECON 556. Letter grade only (A-F).

560. Research Methods for Global Logistics (3)
Prerequisite: ECON 500.
Applications of research methods to topics in logistics. Topics include: developing a research question, performing a literature review, data collection, and statistical analysis.
Letter grade only (A-F).

570. International Trade and Finance for Logistics (2)
Prerequisites: Consent of instructor.
Examines theories of trade, tariffs, customs, foreign exchange market and international financial institutions.
Letter grade only (A-F).

595. Field Studies Practicum in Logistics (3)
Prerequisites: Consent of instructor.
Practical experience, at a management level, in an appropriate logistics firm.
Letter grade only (A-F)

655. Seminar in Global Logistics (3)
Prerequisites: Completion of at least 27 units in the M.A.G.L.
A capstone seminar in global logistics. Major research project to integrate knowledge of global logistics. Research paper and oral presentation of research.
Not open for credit to students with credit in ECON 655. Letter grade only (A-F).

690. Selected Topics in Global Logistics (1-3)
Prerequisites: Consent of instructor.
Topics of current interest in global logistics selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.
GLOBAL MIGRATION STUDIES
College of Liberal Arts

Director: Heather Rae-Espinoza
Department Office: PSY-125, (562) 985-4209
Advisors: Atlas Center, PH1-104
https://www.csulb.edu/colleges/cla/advising/
Associated Faculty: Nielan Barnes (SOC), Norma Chinchilla (SOC), Ken Curtis (HIST), Demetra Kasimis (POSC), Gary Hytrek (SOC), Linda España Maram (ASAM), Yuping Mao (COMM), Heather Rae-Espinoza (HDEV), Maythee Rojas (WGSS), Alejandra C. Edwards (ECON), Caitlin E. Fouratt (I/ST), and Guotong Li (HIST)
Website: http://www.cla.csulb.edu/departments/gms/

Minor in Global Migration Studies

The Minor in Global Migration Studies is an interdisciplinary program to provide students with an understanding of migration’s causes, effects, and impacts and a critical comparative framework for migrant’s experiences (history, gender, and culture). The core represents courses that have a wide survey of different migrant groups and provide a foundation for the more focused courses in the comparative framework.

Courses used to meet the certificate requirement may, where applicable, also be used simultaneously to meet General Education requirements or the major and minor requirements of cooperating departments.

Requirements

Consultation with the program advisor to select courses that address at least two different migrant populations and include no more than 9 units from any department.

Completion of 18 upper division units distributed as follows:

A. Core (6 units)
   Take the following course:
   I/ST 320 Migration and Modernity (3)
   Prerequisite: Completion of all GE Foundation courses.
   Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
   Take one of the following survey courses:
   ANTH 444, CAFF 322, CDFS 410, ECON 341, EDEL / LING 431, ENGR 392, GEOG 360, HSC 407, I/ST 350, SOC 358

B. Comparative Framework (9 units)
   Take one of the following History courses:
   AFRS / ASAM / CHLS 319, ANTH 473, ASAM 335, ASAM 407; A/ST 310; CHLS 300, CHLS 335, CHLS 350, CHLS 430; SOC 340; HIST 362, HIST 370, HIST 372, HIST 412, HIST 435, HIST 440, HIST 441, HIST 443, HIST 460, HIST 470, HIST 471, HIST 473, HIST 475, HIST 486, HIST 491
   Take one of the following Gender courses:
   AFRS 454I; ASAM 381; CHLS 415; GEOG 462; HIST 485A, WGSS 307, WGSS 320, WGSS 401, WGSS

432, WGSS 445A, WGSS 485A
Take one of the following Culture courses:
ASAM 330, ASAM 331, ASAM 332, ASAM 333, ASAM 334, ASAM 352, ASAM 354; CHLS 352; EDEL 434, EDEL 455C, EDEL 455K, EDEL 455V; ITAL 345; SOC 341

C. Culminating Experience (3 units)
   Take a thesis or directed study with any member of the Faculty Advisory Board:
   ASAM 499; HDEV 470, HDEV 499; I/ST 492, I/ST 499; SOC 495, SOC 499; WGSS 498, WGSS 499
HEALTH AND HUMAN SERVICES,  
COLLEGE OF

Dean: James Kovai  
Associate Dean: Terry Robertson  
Director of Development: Tyson Reyes  
Administrative Services Manager: Douglass Butler  
Senior Financial Analyst: Tina Tran  
Facilities Coordinator: Denysia O’Connell  
Director of the Academic Advising Center: Rachel Wiedemann  

College Office: Engineering Technology Building (ET), Room 200  
Telephone / FAX: (562) 985-4194 / (562) 985-7581  
Website: www.csulb.edu/colleges/chhs/  

Introduction  
The College of Health and Human Services prepares students for careers in health, wellness, teacher preparation, and social and consumer services. Our accredited graduate and undergraduate programs offer state-of-the-art curriculum though which departments/schools provide optimal learning opportunities in the classroom, in the research laboratory, and in the community.  
The College's two schools, nine departments, three programs, and twelve research centers are housed within twelve buildings on campus with state-of-the-art classrooms, laboratories, and clinics with equipment matching that of business/industry.

Programs at a Glance  
Bachelor of Arts:  
Family and Consumer Sciences  
Kinesiology  
Recreation  
Social Work  
Speech-Language Pathology  

Bachelor of Science:  
Athletic Training  
Criminal Justice  
Dietetics and Food Administration  
Health Care Administration  
Health Science  
Hospitality Foodservice and Hotel Management  
Kinesiology  
Nursing  

Master of Arts:  
Family and Consumer Sciences  
Kinesiology  
Speech-Language Pathology  

Master of Science:  
Criminal Justice  
Emergency Services Administration  
Gerontology  
Health Care Administration  
Health Science  
Kinesiology  
Nursing  
Nursing / Public Health  
Nursing / Health Care Administration  
Nutritional Science  
Recreation Administration  

Master of Public Administration  
Master of Public Health: Community Health Education  
Master of Social Work  
Doctor of Nursing Practice  
Doctor of Physical Therapy  

Certificates  
Gerontology  
Health Care Administration  
Latino Health and Nutrition Studies (graduate)  
Nurse Practitioner (graduate)  
Public Management Analyst (graduate)  
Public Sector Employer-Employee Relations and Personnel Management (graduate)  
Public Sector Financial Management (graduate)  
Therapeutic Recreation  
Transportation Policy and Planning (graduate)  
Urban Executive Management (graduate)  
Wilderness Studies (discontinuance in progress)  

Credentials  
Single Subject Teaching Credentials: Home Economics, Health Science, and Kinesiology/Physical Education. Services credentials are offered in Communicative Disorders (Public Education Speech-language Pathology), Nursing (Health Service School Nurse), and Social Work (Pupil Personnel – Child Welfare and Attendance).

Professional Accreditations  
Programs in the College are accredited by the following state and national accrediting agencies:  

Special Interest Clubs  
Archers, Army ROTC Association, Army ROTC Rangers (AROTC), California Nursing Student Association, Child and Family Associated Students (CAFAS, Family and Consumer Sciences), Criminal Justice Student Association, Fitness Club, Foodservice and Hotel Management Association (Family and Consumer
participatory research. The certificate incorporates disease prevention best practices and community-based relevant interventions, and implementation of chronic disease affecting Latinos, development of culturally and linguistically relevant care and education for the Latino population. The certificate is comprised of 18 units. Components of the program include analysis of the health status and access issues affecting Latinos, development of culturally and linguistically relevant interventions, and implementation of chronic disease prevention best practices and community-based participatory research. The certificate incorporates a thorough overview of Latino health from early childhood development to the multiple chronic diseases that continue to impact this population. This program must be completed in conjunction with a CSULB degree program.

Interested students should contact Dr. Britt Rios-Ellis at 562-985-5312 or Britt.Rios-Ellis@csulb.edu.

**Prerequisites**

1. Admission to an active CSULB graduate program.
2. A minimum overall GPA of 3.0 in a graduate program.
3. Must have completed (with a grade of “B” or better) the following undergraduate courses or equivalent:
   - HSC 401 Community Health Education (3)
     Prerequisite: HSC 301
   - HSC 403 Community Health Statistics (3)
     Prerequisite: GE Math and SOC 170 or PSY 110 (PSY 100 prereq) or STAT 108.
   - NUTR 132 Introductory Nutrition (3)
     Prerequisite/Corequisite: One Foundation course.
5. One letter of reference.
6. Copies of academic transcripts (turned into the university).

**Requirements**

1. A minimum overall GPA of 3.0 in certificate coursework.
2. A minimum of 6 units in certificate coursework completed per academic year.
3. Complete a minimum of 18 units in the required graduate courses:
   - HSC 507 Health Equity and Health Disparities Research in the US (3)
     Prerequisite: Undergraduate major in Health Science or related field.
   - FCS/HSC 534 Advanced Latino Nutrition, Health and Chronic Disease Prevention (3)
     Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
   - FCS/HSC 537 Culturally Responsive Nutrition Promotion for Latinos (3)
     Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
   - HHS 592A Internship in Latino Nutrition and Health Promotion (3)
     Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
   - HHS 634 Advanced Latino Community Health (3)
     Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
   - HHS 635 Latino Health Promotion and Disease Prevention: A Focus on the Child (3)
     Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.

**Professional and Honors Organizations**

- Alpha Phi Sigma (Criminal Justice), American College of Healthcare Executives, California Association for Health, Eta Sigma Delta (Hospitality Foodservice and Hotel Management, Family and Consumer Sciences), Eta Sigma Gamma (Health Science), Kappa Omicron Nu (Family and Consumer Sciences), Phi Epsilon Kappa (Kinesiology), Pi Alpha Alpha (Public Policy and Administration), Recreation and Dance (CAHPERD), Sigma Phi Omega (National Academic and Professional Society in Gerontology), Sigma Theta Tau (Iota Eta Chapter, Nursing).

**College and Departmental Organizations**

- Asian Pacific Islanders Committee (Social Work), Associated Students of Social Work, California Nursing Student Association, Dunham/Cleveland Committee (Social Work), College of Health and Human Services Student Council, Gay, Lesbian, Transsexual, Transgender Committee (Social Work), Latino Student Network Committee (Social Work), National Association of Social Work Unit, Social Work Alumni Association.

**Graduate Programs**

**Graduate Certificate in Latino Health and Nutrition Studies**

This certificate focuses on enhancing the academic development and training of health and human service professionals to provide culturally and linguistically relevant care and education for the Latino population through their respective job placements. The certificate is comprised of 18 units. Components of the program include analysis of the health status and access issues affecting Latinos, development of culturally and linguistically relevant interventions, and implementation of chronic disease prevention best practices and community-based participatory research. The certificate incorporates a
### Courses (HHS)

#### LOWER DIVISION

**190. Selected Topics (3)**  
Selected Topics  
Prerequisites: None  
Specific topics of current interest in Health and Human Services selected for intensive development. Topics are announced in the Schedule of Classes.  
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. (3 hours seminar)

**207. Interdisciplinary Approaches to Health Disparities (3)**  
Prerequisite: GE Foundation requirements or consent of instructor  
This course covers the definition, prevalence, risk and protective factors, and interventions for health disparities among diverse populations. Using problem-based approaches, students will learn about discipline-specific and interdisciplinary methods to address common biomedical issues in a culturally relevant way.  
Letter grade only (A-F). (3 hour lecture)

**288. Emergency Medical Technician (6)**  
Study and application of emergency medical technician skills. Assessment, care, communication, and ambulance operations for the sick and injured. Ambulance ride-along and hospital emergency room experience. Qualifying students take the NREMT exam to become a certified Emergency Medical Technician (EMT).  
Letter grade only (A-F).

**290. Selected Topics (3)**  
Prerequisites: None  
Specific topics of current interest in Health and Human Services selected for intensive development. Topics are announced in the Schedule of Classes.  
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. (3 hours seminar)

**296. Introduction to Research Methods (3)**  
Prerequisite: GE Foundation requirements or consent of instructor  
Introduces topics for inquiry and analysis in behavioral and social science research. Historical events shaping current ethical standards for research guide research design, analysis, and reporting. Students learn observation and experimentation, hypotheses formulation and testing, measurement, analysis, and reporting.  
Same course as CLA 296. Not open for credit to students with credit in CLA 296.  
Letter grade only (A-F). (3 hours lecture)

#### UPPER DIVISION

**361. Scientific Research Communication (3)**  
Prerequisite: G.E. foundation courses; score of 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.  
Introduction to technical writing for students pursuing research careers. Accessing and using research literature. Writing technical and research reports for various purposes and audiences. Oral presentation of research and scientific information. Includes intensive writing.  
Letter grade only (A-F).  
Letter grade only (A-F). (3 hours seminar)

**374. Professional Practice I: Professional Interactions (3)**  
Prerequisites: Consent of instructor  
Self-awareness of how personality, learning preferences, and personal values affect professional interactions. Includes effective communication, conflict resolution, and eliciting patient values and goals. Also, communicating with patients who have experienced disability, sexual dysfunction, or issues with coping or dying.  
Letter grade only (A-F). Lecture/Discussion 3 hours.

**390. Selected Topics (3)**  
Prerequisites: None  
Specific topics of current interest in Health and Human Services selected for intensive development. Topics are announced in the Schedule of Classes.  
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. (3 hours seminar)

**401. Applied Anatomy I (3)**  
Prerequisite: BIOL 208 or equivalent.  
Advanced study of structure and function of neuromusculoskeletal systems with emphasis on surface contour, myology and joint structure and neurovascular supply. Regional emphasis includes upper extremity head, neck and thorax. Includes dissection laboratory and provided materials.  
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours) Course fee may be required.

**402. Applied Anatomy II (3)**  
Prerequisites: BIOL 208 or equivalent; “B” or better in HHS 401.  
Continuation of HHS 401, with emphasis on normal anatomy of lower extremities, pelvis, and abdominal region.  
Letter grade only (A-F). (Lecture/discussion 2 hours, lab 3 hours) Course fee may be required.

**403. Tissue Mechanics and Aging (3)**  
Prerequisites: “B” or better in HHS 401 and BIOL 341 and consent of instructor.  
Advanced study of tissue (bone, muscle, dense fibrous connective tissue, cartilage, nerve) mechanics and pathomechanics including use, disuse and aging with application to joint mechanics and therapeutic procedures.  
Letter grade only (A-F). (Lecture/discussion 3 hours)

**460. Neuroanatomy (4)**  
Prerequisite: BIOL 341.  
Investigation of human neuroanatomy with emphasis on the structure and function of the central nervous system (CNS), cranial nerves, and their connecting neural pathways relative to human function and movement. Neuroanatomical and vascular lesions will be discussed and correlated to common clinical conditions. Emphasis is on applying neuroanatomy for differential diagnosis.  
Letter grade only (A-F). (Lecture/discussion 3 hours, lab 3 hours)

**471. Pathology (3)**  
Prerequisite: BIOL 208; Corequisite: BIOL 341.  
Advanced study of abnormal function as result of disease. Includes general pathology and selected pathologies encompassing cardiovascular, pulmonary, musculoskeletal, peripheral and central nervous system, and integumentary systems.  
Letter grade only (A-F). (Lecture/discussion 3 hours)
489. Beach Community Wellness Program: Leadership Development (3)
Prerequisite: Consent of instructor.
This course provides students with experiences in design, implementation and evaluation of a comprehensive wellness program. Teaching, leadership, analysis, reflection, and reciprocity are the main focal points of this course. Embedded in the course is a service-learning component during which students will complete over 20 hours of service-learning. (2 hours lecture, 2 hours activity) Letter grade only (A-F)

490. Selected Topics (3)
Prerequisites: None
Specific topics of current interest in Health and Human Services selected for intensive development. Topics are announced in the Schedule of Classes. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. (3 hours seminar)

496. Advanced Behavioral Research Methods (3)
Prerequisite: HHS361 or CLA361 or ENGR361 or NSCI361 or consent of instructor.
This course is designed to provide an in-depth knowledge of scientific research, emphasizing connection between research design and statistical analyses. The course covers literature review, hypothesis generation, types of research designs and conceptual approach to data analyses. Letter Grade Only (A-F)

497. Independent Studies (1-3)
Prerequisites: Consent of instructor, and for human dissection, one general introductory anatomy course, HHS 401 and 402. Independent projects in any area of physical therapy. Human dissection is available as a special study. Letter grade only (A-F). May be repeated to a maximum of 6 units.

592A. Internship in Latino Nutrition and Health Promotion (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields. Provides a competency-based, service learning experience in which knowledge, understanding and theory are applied to real-life situations for skill-development of graduate students. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

634. Advanced Latino Community Health (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields. Explores the structural-environmental, policy, epidemiological, cultural, and linguistic factors that influence disease and wellness within Latino subpopulations. Provides student with an interdisciplinary examination of the health status and health access issues facing diverse Latino communities in the United States. Letter grade only (A-F).

635. Latino Health Promotion and Disease Prevention: A Focus on the Child (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields. Explores factors that facilitate and inhibit wellness within Latino children through a culturally relevant and multidisciplinary lens. Latino children are the youngest, fastest growing U.S. demographic whose well-being is inextricably linked to the overall health of our nation. Letter grade only (A-F).
HEALTH CARE ADMINISTRATION
College of Health and Human Services

Department Chair: Tony Sinay
Department Office: Health and Human Services (HHS) 2, Room 118
Telephone: (562) 985-5694
Faculty: Erlyana Erlyana, Brenda Freshman, Henry O'Lawrence, Grace Reynolds, Tony Sinay, Sandhya Shimoga
Administrative Coordinator: Deby McGill, John Ciulik

Career Possibilities
Provider Relations Director • Clinical Administrator •
Financial Analyst • Director of Managed Care • Director of Nursing • Medical Facilities Section Director • Nursing Home Administrator • Medical Records Administrator • Social Welfare Administrator • Emergency Medical Services Coordinator • Public Health Director • Community Organization Director (For more information, see www.careers.csulb.edu.) Various entry-level trainee positions in the health care industry are available for graduates of undergraduate program.

Introduction
Mission
The mission of the CSULB Health Care Administration Department is to prepare professionals to manage, lead, and improve a changing health care system. Our graduate and undergraduate programs are designed, and continually strive to improve their efforts, to meet the needs of the dynamic health care system, and to emphasize culturally appropriate patient-centered service delivery systems.

The mission of the undergraduate Health Care Administration Program at California State University Long Beach is to provide students with the knowledge, skills and abilities needed by entry level health care professionals in an ethnically and culturally diverse community.

Vision
Being the highly sought program of choice by students who aspire to meaningful and successful careers in health care management.

Values
The HCA Program’s values are lifelong learning, research and innovations, collaboration, servant leadership, student centered, applied knowledge, professionalism, and ethical behavior.

The department offers four programs:
1. Master of Science in Health Care Administration
2. Bachelor of Science in Health Care Administration
3. Master of Science in Health Care Administration-Accelerated Program
4. Certificate in Health Care Administration

Accreditation
The graduate program is accredited by the Commission on Accreditation for Health Management Education (CAHME) and the undergraduate program is a fully certified member of the Association of University Programs in Health Administration (AUPHA).

Undergraduate Programs

Bachelor of Science in Health Care Administration (120 units)

Admission Requirements
Prerequisites
1. All students must complete a minimum of 13-14 semester units or the equivalent in prerequisite preparatory course for the major: ACCT 201, ECON 101 or ECON 300, HDEV 190, SOC 170 or PSY 110 or STAT 108 and BIOL 205 (or equivalent) or BIOL 207 and BIOL 208. Computer proficiency in word processing, spreadsheet, database and presentation software is expected. Business calculus (MATH 115) is recommended.
2. An overall grade point average of 2.4 or higher is required for entrance into the program. A minimum grade of “C” is required for each prerequisite course.

Graduation Requirements
1. Complete the requirements for General Education
2. Complete the prerequisite courses
3. Complete the major core course requirements:
   IS 233 Introduction to Computer Systems and Applications (3)
   Prerequisites: None
   HSC 150 Medical Terminology (1)
   Prerequisites: None.
   HCA 300 The Health Care System (3)
   Prerequisites: None.
   HCA 312 Health Personnel Management (3)
   Prerequisite/Corequisite: HCA 300.
   HCA 340 Financial Management of Health Care Institutions (3)
   Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in ACCT 201.
   Prerequisite/Corequisite: HCA 300.
   HCA 353 Marketing for Health Services Organizations (3)
   Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in ACCT 201.
   Prerequisite/Corequisite: HCA 300.
   HCA 410 Health Management and Organization (3)
   Prerequisites: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   HCA 416 Management and Information Systems (3)
   Prerequisites: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   HCA 428 Population Health Management for Health Care Administrators (3)
   Prerequisites: Prerequisite: Open to Health Care Administration majors only, upper division standing, or instructor consent.
Certificate in Health Care Administration

The Certificate in Health Care Administration is comparable to a minor of 24 units. Components of the program include the forms of organization and operation of health care systems, human resources management, leadership and development, financial management, and marketing. The Certificate may be combined with major programs from a variety of fields, including, but not limited to, behavioral and natural sciences, humanities, health professions, business and public administration, and social work.

Students may only pursue the certificate program in combination with a CSULB degree program.

Requirements

1. Concurrent enrollment in any bachelor’s degree program at CSULB (except Health Care Administration)
2. Minimum GPA of 2.4 in all completed coursework
3. Junior standing
4. Program Director or Academic Advising and Resource Center approval
5. Completion of the following 24 units: ACCT 201; ECON 101; HCA 300, HCA 312, HCA 341, HCA 353, HCA 410 and HCA 450.
6. Fulfill the Graduation Writing Assessment Requirement (GWAR)
7. Each major course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses for which it is not a prerequisite with approval of the Undergraduate Advisor.

Graduate Programs

Master of Science in Health Care Administration

Graduates of HCA degree programs will achieve and demonstrate the following competencies: health care knowledge, leadership, presentation skills (oral communication), written communication skills, career marketability, teamwork, managing change, conceptual skills, managerial decision making, ethical decision making, information management, interpersonal skills, independence, creativity and critical thinking, analytical skills, planning, advocacy and conflict management.

Admission Requirements

Each interested individual should apply to the University at www.csumentor.edu; send official transcripts from an accredited institution to Enrollment Services and pay application fee online.

To obtain admission a Baccalaureate degree from an accredited institution is required. Preferably the candidate is expected to have completed 9 units of course work in accounting, economics and statistics, but these prerequisite courses could be taken during the MS program if needed. An applicant must have an overall undergraduate grade point average of 3.0 or better. Those applicants with less than 3.0, but with acceptable evidence of professional potential shown through recent academic performance and experiential background, may be admitted by special action of the Department Admissions Committee.

In addition, the candidate should prepare an application packet with the following documents and send it to the Department:
1. MSHCA Application Form (available on HCA website)
2. A current and complete resume
3. Statement of purpose describing your career goals in health care administration
4. Three letters of recommendation
5. GMAT or GRE score (will be waived with five or more years of experience in the health care field.)

Please note that an interview with the Program Director may be required.

Prerequisites

1. Take the following course (or equivalent): ACCT 201
2. Take one of the following courses (or equivalent): ECON 101, ECON 300
3. Take an introductory statistics course or equivalent (e.g., SOC 170).
4. Submit a minimum score of 500 on a recent Graduate Management Admission Test (GMAT) or a total score of a minimum 1000 on the Graduate Record Examination (GRE).

Students should contact the Program Director for a determination of deficiencies and required remediation.
Graduation Requirements

1. Complete a minimum 45 units graduate-level course work.
2. Complete all of the following core courses:
   - HCA 502 The Health Care System (3)
     Prerequisites: None.
   - HCA 503 Health Care Economics (3)
     Prerequisites: ECON 101 or ECON 300.
   - HCA 505 Organization and Systems of Health Care (3)
     Prerequisites: Health Care Administration majors only.
   - HCA 510 Human Resources Management in Health Care (3)
     Prerequisite(s): Health Care Administration majors only.
     Prerequisite/Corequisite: HCA 502
   - HCA 515 Advanced Financial Management in Health Care (3)
     Prerequisite: ACCT 201 or ACCT 500; HCA 502; Health Care Administration majors only.
   - HCA 517 Advanced Healthcare Information Systems Management (3)
     Prerequisites: Health Care Administration majors only, HCA 502.
   - HCA 524 Advanced Legal and Ethical Aspects of Health Administration (3)
     Prerequisite: Health Care Administration majors only, HCA 502.
   - HCA 527 Research Methods in Health Care Management
     Prerequisites: SOC 170 or equivalent statistics course, Health Care Administration majors only, HCA 502 and advancement to candidacy.
   - HCA 528. Managing Population Health
     Prerequisite: HCA majors only, HCA 502
   - HCA 530 Strategic Planning and Marketing in Health Care (3)
     Prerequisites/Corequisites: HCA 502.
   - HCA 535 Quantitative Methods for Health Administration (3)
     Prerequisites: Health Care Administration majors only, HCA 502.
   - HCA 550 Continuous Quality Improvement in Health Services (3)
     Prerequisites: Health Care Administration majors only, HCA 502.
   - Completion of any two of the following elective courses:
     HCA 536, HCA 537, HCA 552 or HCA 580.
   - Culminating Experience
     HCA 698. Project (3)
     Prerequisites: Advancement to candidacy & completion of minimum 27 graduate units in HCA.

Accelerated Program

The Master in Health Care Administration Accelerated Program (MSHCA-AP) is designed to prepare working professionals for administrative positions in health care organizations which requires a minimum three years of work experience and combines online and weekend courses. The MSHCA-AP program requires 45 credit hours consisting of 15 core courses. The program offers foundation courses early and more advanced healthcare specific courses later in the program.

Accelerated Education Model

YEAR I

First Quarter-Fall
   Orientation - No Credit
   1. HCA 503 Health Care Economics (3)
      Prerequisites: ECON 101 or ECON 300.
   2. HCA 505 Organization and Systems of Health Care (3)
      Prerequisites: Health Care Administration majors only.

Second Quarter-Winter
   3. HCA 502 The Health Care System (3)
      Prerequisites: None.
   4. HSC 500 Principles of Epidemiology (3)
      Prerequisites: HSC 403 or equivalent.

Third Quarter-Spring
   5. HCA 524 Advanced Legal and Ethical Aspects of Health Administration (3)
      Prerequisite: Health Care Administration majors only, HCA 502.
   6. HCA 515 Advanced Financial Management in Health Care (3)
      Prerequisite: ACCT 201 or ACCT 500; HCA 502; Health Care Administration majors only.

Fourth Quarter-Summer
   7. HCA 527 Research Methods in Health Care Management
      Prerequisites: SOC 170 or equivalent statistics course, Health Care Administration majors only, HCA 502 and advancement to candidacy.
   8. HCA 537 Managed Care (3)
      Prerequisite: Health Care Administration majors only, HCA 502.

YEAR II

First Quarter-Fall
   9. HCA 517 Advanced Healthcare Info Systems Management (3)
      Prerequisites: Health Care Administration majors only, HCA 502.
   10. HCA 527 Research Methods in Health Care Management
       Prerequisites: SOC 170 or equivalent statistics course, Health Care Administration majors only, HCA 502 and advancement to candidacy.

Second Quarter-Winter
   11. HCA 537 Managed Care (3)
       Prerequisite: Health Care Administration majors only, HCA 502.
   12. HCA 550 Continuous Quality Improvement in Health Services (3)
       Prerequisites: Health Care Administration majors only, HCA 502.

Advancement to Candidacy

Students will be instructed to apply for advancement to candidacy after:
1. Completion of all prerequisite courses,
2. Completion of 6 units of core course work that applies to the degree with an average grade of “B” or better,
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR),
4. Approval of Program Director.
Third Quarter-Spring
13. HCA 698 Project (3)
   Prerequisites: Advancement to candidacy & completion of minimum 27 graduate units in HCA.
14. HCA 536 Hospital Management (3)
   Prerequisites: Health Care Administration majors only, HCA 502.

Fourth Quarter-Summer
15. HCA 530 Strategic Planning/Marketing in Health Care (3)
   Prerequisites/Corequisites: HCA 502.

Master of Science in Nursing/Master of Science in Health Care Administration

For requirements, see description in the Nursing section of this catalog.

Courses (HCA)

LOWER DIVISION

101. Health Care Administration in Action (3)
   Offers students opportunities to learn about health administration careers by hearing from and interacting with health care managers working in a variety of organizations, with a focus on those in the greater Long Beach area.
   Letter grade only (A-F).

202. Introduction to Health Care in America (3)
   Prerequisites: GE Foundation requirements.
   US health care system with its delivery and financing mechanisms as well as the technical, economic, political and social forces responsible for changes in the health care system. Contemporary issues such as access, cost and quality, health disparities among minority groups as well as gender disparities including sexual orientation.
   Letter grade only (A-F).

UPPER DIVISION

300. The Health Care System (3)
   Overview and developmental summary of the American health care system and its driving forces: Organizational forms; financing mechanisms; principal industry stakeholders; professional groups and workforce issues; public health and government.
   Letter grade only (A-F). Not open for credit to students with credit in: HCA 402.

312. Health Personnel Management (3)
   Prerequisite: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   The management of human resources in health care setting. Principles and methods of personnel work such as employee, recruitment, selection, retention, training, evaluation, and wage and salary administration, and labor management relations.
   Letter grade only (A-F). (Lecture)

320. Operations Management in Health Administration (3)
   Prerequisites: A grade of "C" or better in PSY 110 or SOC 170 or equivalent.
   Prerequisite/Corequisite: HCA 300.
   The application of the concepts and methods of operations management to health care organizational setting. Emphasis on planning and control in management process.
   Letter grade only (A-F). (Lecture)

340. Legal Aspects of Health Administration (3)
   Prerequisite: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   Overview of health law issues. Government regulation including legal constraints; liability; negligence; patient rights; confidentiality; and corporate/administrative responsibility.
   Emphasis on business applications of health law.
   Letter grade only (A-F). (Lecture)

341. Financial Management of Health Care Institutions (3)
   Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in ACCT 201.
   Prerequisite/Corequisite: HCA 300.
   Application of the concepts of financial management within health care organizations, to include financial planning principles, reimbursement procedures, governmental regulation and legal restraints.
   Letter grade only (A-F). (Lecture)

353. Marketing for Health Services Organizations (3)
   Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in ACCT 201.
   Prerequisite/Corequisite: HCA 300.
   Development of marketing strategies and analyses in a health care setting. Design of services to include pricing, communication, distribution channels, and client motivation and services.
   Letter grade only (A-F).

410. Health Management and Organization (3)
   Prerequisites: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   Introduction to health care management practices and concepts. Planning, decision-making, influencing, controlling, effecting change. Effects of environment, technology and human behavior on organizational design.
   Letter grade only (A-F). (Lecture)

416. Management and Information Systems (3)
   Prerequisite: Open to Health Care Administration majors only.
   Prerequisite/Corequisite: HCA 300.
   Evaluation of concepts, analysis and design of management information systems; management decision models, strategies for implementing system changes.
   Letter grade only (A-F). (Lecture)

417. Technology, Ethics, and Society (3)
   Prerequisites: GE Foundation requirements, upper division standing, ENGL 100 or GE Composition (Area A1).
   A framework for understanding the ways in which human societies transform themselves through technological innovation. Ethical questions concerning the social effects of technological change.
   Letter grade only (A-F).

422. Global Issues in Health Services (3)
   Prerequisites: GE Foundation, one or more Exploration courses and upper division standing.
   Examination of factors that impact global health; analysis of health care delivery systems and the governmental, economic, social and political forces that influence them.
   Letter grade only (A-F). (Lecture)
428. Population Health Management for Health Care Administrators (3)
Prerequisite: Open to Health Care Administration majors only, upper division standing, or instructor consent.
Prerequisite/Corequisite: HCA 300
A systematic approach to managing and improving specific populations and nations health status, with emphasis on the distribution of health within a population, the determinants that influence the distribution, and the policies and interventions that impact the determinants.
Letter grade only (A-F).

439./539. Management Challenges in Long Term Care (3)
Prerequisite: Health Care Administration majors only; undergraduate students HCA 300; graduate students HCA 502.
Functions and essential skills to manage LTC organizations and facilities: Institutional arrangements; Patient/family/community relations; workforce management; marketing; reimbursement.
Letter grade only (A-F). (Lecture)

450. Quality Assurance in Health Care (3)
Prerequisite: Open to Health Care Administration majors only and a grade of "C" or better in HCA 300.
Basic elements of quality improvement and organizational responsibilities related to quality assurance. Data analysis for quality improvement, clinical practice guidelines, and future of healthcare quality.
Letter grade only (A-F). (Lecture)

451. Economics of Health (3)
Prerequisite: A grade of "C" or better in ECON 101 or ECON 300.
Microeconomic principles and their application to healthcare such as opportunity cost, production of good health, demand for medical care, production and cost theory and cost-benefit analysis. Behavior of health care markets and organizations.
Letter grade only (A-F). (Lecture)

452./552. Medical Group Practice Management (3)
Prerequisites: Health Care Administration majors only; undergraduate students HCA 300 and HCA 341; graduate students HCA 502.
Fundamental operational responsibilities of medical group administration today, with emphasis on finance, operations and management skills.
Letter grade only (A-F). (Lecture)

457. Working Around the World (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, upper division standing.
The effects of religion, language and culture, political structure, economics, and physical environment on the development of the workplace and people's perceptions of work and occupations.
Letter grade only (A-F).

465. Analysis and Evaluation of Health Care Services (3)
Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in PSY 110 or SOC 170 or STAT 108 or equivalent.
Techniques of analysis and evaluation applied to health services with respect to organizing, staffing, financing and utilization. Emphasis on the analytic process, program evaluation, and report of findings.
Letter grade only (A-F).

468. Principles of Risk Management and Patient Safety (3)
Prerequisite (s): Open to HCA majors only. A grade of "C" or better in HCA 340, HCA 341 and HCA 450
Study and application of risk management in health services. Measuring and managing risk factors, patient and staff safety, loss prevention and claims, and designing risk management models for health care providers and caregivers.
Letter grade only (A-F).

470. Latinas/Latinos: Health Status and Health Care Access (3)
Prerequisites: GE Foundation, one or more Exploration courses, upper division standing.
Interdisciplinary exploration of policies, epidemiologic, cultural factors influencing disease within Latino subpopulations, their impact upon efficient, equitable service delivery.
Letter grade only (A-F). Same course as CHLS 470. Not open for credit to students with credit in CHLS 470. (Lecture)

471. Geographic Information Science (GIS) for Health (3)
Prerequisite: GEOG 200 or SOC 170 or equivalent.
Introduction to the fundamentals of Geographic Information Science and Systems (GIS) including concepts and skills in spatial reasoning and spatial thinking. Explores GIS in spatial query, problem analysis and decision support using health-related applications. Lecture/discussion and Laboratory (2 hours lecture, 2 hours computer laboratory)
Letter grade only (A-F). Same course as GEOG 471. Not open for credit to students with credit in GEOG 471.

480./580. Internship in Health Care Administration (3)
Prerequisites: Senior status only. Open to Health Care Administration majors only and a grade of "C" or better in HCA 300, HCA 312, HCA 341, HCA 410, HCA 465 and HSC 150.
Minimum 120 hours of structured work experience in a health care organization, under direct supervision of a preceptor-employee.
Letter grade only (A-F). Course fee may be required. (Workshop/Activity 6 hours)

481. Internship and Career Development in Health Care Administration (3)
Prerequisites: Open to Health Care Administration majors only and a grade of "C" or better in HCA 480.
A minimum of 120 hours of structured work experience in a health care organization, under the direct supervision of a preceptor-employee. Career development planning, job search and networking.
Letter grade only (A-F). (Workshop/Activity 6 hours)

490. Selected Topics in Health Care Administration (1-3)
Topics of special interest in health care administration selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units with approval of Health Care Administration Program Director. Letter grade only (A-F).

GRADUATE LEVEL

502. The Health Care System (3)
Overview, developmental summary of the American health care system and its driving forces. Major elements of the healthcare system; today's major health policy issues in a historical, economic and political context.
Letter grade only (A-F).
503. Health Care Economics (3)
Prerequisites: ECON 101 or ECON 300
Application of economic principles to health care; the flow of funds through the health care system including physicians, hospitals, managed care, nursing home and pharmaceutical firms. Third party payment, asymmetric information, and behavior health care systems.
Letter grade only (A-F).

505. Organization and Systems of Health Care (3)
Prerequisites: Health Care Administration majors only.
Analysis of operational activities and managerial functions essential to the health care delivery system, with emphasis on management and leadership influence on developing effective systems of care within various institutional arrangements.
Letter grade only (A-F).

510. Human Resources Management in Health Care (3)
Prerequisite(s): Health Care Administration majors only.
Prerequisite/Corequisite: HCA 502
Management of human resources in the health care system including human resource planning and staffing, training and development, performance appraisal, job design and analysis, and compensation.
Letter grade only (A-F).

515. Advanced Financial Management in Health Care (3)
Prerequisite: ACCT 201 or ACCT 500; HCA 502; Health Care Administration majors only.
Letter grade only (A-F).

517. Advanced Healthcare Information Systems Management (3)
Prerequisite: Health Care Administration majors only, HCA 502.
Broad overview of healthcare information systems; close examination of business needs for the information technology (IT) to deliver cost-effective quality health services.
Letter grade only (A-F).

524. Advanced Legal and Ethical Aspects of Health Administration (3)
Prerequisite: Health Care Administration majors only, HCA 502.
Federal and state regulation of health care facilities, employees, patients and programs. Ethical and legal perspectives on malpractice, liability, contracts, informed consent, end-of-life decisions, reproductive health, medical records, confidentially and required disclosures.
Letter grade only (A-F).

527. Research Methods in Health Care Management (3)
Prerequisites: SOC 170 or equivalent statistics course, Health Care Administration majors only, HCA 502 and advancement to candidacy
Research design and methods in health care management and health services, including use of literature review, inferential statistics, hypothesis testing and sampling, experimental and quasi-experimental approaches, and research ethics.
Letter grade only (A-F)

528. Managing Population Health (3)
Prerequisite: Health Care Administration majors only, HCA 502
Fundamental epidemiologic concepts and applications in health care management practice. Approaches to measure the health status of populations, identify modifiable causal factors for preventing and controlling adverse health outcomes, and improve population health.
Letter grade only (A-F)

530. Strategic Planning and Marketing in Health Care (3)
Prerequisite/Corequisite: HCA 502.
Strategic planning based on analysis of analyses of secondary quantitative and qualitative data to study changes in technological, social, political, regulatory, and competitive aspects of the health care market.
Letter grade only (A-F).

535. Quantitative Methods for Health Administration (3)
Prerequisites: Health Care Administration majors only, HCA 502.
Application of quantitative and operations research techniques to problems in health care settings. Exposure to decision theory and control systems. Problem solving experiences in resource allocation, procedures, scheduling, forecasting, measurement and cybernetic control.
Letter grade only (A-F).

536. Hospital Management (3)
Prerequisites: Health Care Administration majors only, HCA 502.
Analysis of hospitals by broad function and specific departments through cases, simulations and visits to develop familiarity with internal operations of acute care hospitals and skills in solving hospital operational problems.
Letter grade only (A-F).

537. Managed Care (3)
Prerequisite: Health Care Administration majors only, HCA 502.
Orientation to the organization and administration of health maintenance organizations, preferred provider organizations and related enterprises. Legal and regulatory issues, marketing, utilization management, premium rating systems, information systems, case/disease management.
Letter grade only (A-F). (Seminar 3 hours)

539/.439. Management Challenges in Long Term Care (3)
Prerequisite: Health Care Administration majors only; undergraduate students HCA 300; graduate students HCA 502.
Functions and essential skills to manage LTC organizations and facilities: institutional arrangements; patient/family/community relations; workforce management; marketing; reimbursement.
Letter grade only (A-F).

550. Continuous Quality Improvement in Health Services (3)
Prerequisites: Health Care Administration majors only, HCA 502.
Administrative and professional issues to assure quality in health care. Historical beginnings: metrics and indicators; state-of-the-art practices; voluntary and governmental monitoring.
Letter grade only (A-F).

552/.452. Medical Group Practice Management (3) F
Prerequisites: Health Care Administration majors only; undergraduate students HCA 300 and HCA 341; graduate students HCA 502.
Fundamental operational responsibilities of medical group administration today, with emphasis on finance operations and management skills.
Letter grade only (A-F).

580/.480. Internship in Health Care Administration (3)
Prerequisites: Senior status only.
Minimum 120 hours of structured work experience in a health care organization, under direct supervision of a preceptor-employee. Graduate students study and report on institution's organizational structure, philosophy, problems and personnel. May be repeated to a maximum of six units in different semesters.
Letter grade only (A-F). Course fee may be required. (Workshop/Activity 6 hours)
590. Selected Topics in Health Care Administration (1-3)
Topics of current interest in the various fields of health administration and health services management selected for special presentation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

599. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed study of a special topic to be taken under supervised independent study.
May be repeated for a maximum 6 units with different topics in different semesters. Letter grade only (A-F).

698. Project (3)
Prerequisites: Advancement to candidacy & completion of minimum 27 graduate units in HCA.
Under the direction of the Thesis/Project Advisor, the student completes a thesis/project in the form of a business plan, including a literature review. Letter grade only (A-F). A grade of "B" or better is required for successful completion.
Letter grade only (A-F), including the RP option.
HEALTH SCIENCE
College of Health and Human Services

Department Chair: Gail C. Farmer
Department Office: Health and Human Services (HHS) 2, Room 115
Telephone: (562) 985–4057
Faculty: Veronica Acosta-Deprez, Niloofar Bavarian, Stephanie L. Eatmon (Emerita), Dale W. Evans (Emeritus), Gail Farmer, Mohammed R. Forouzesh, Robert H. Friis (Emeritus), Ka Wa Gorman, Sarath Gunatilake, Javier Lopez-Zetina, Charles Malotte (Emeritus), Britt K. Rios-Ellis, Selena Nguyen-Rodriguez
Liaison, CSULB/VA Joint Studies Institute: Gail C. Farmer
Undergraduate Coordinator: Victoria Bisorca
Coordinator, Single Subject Credential: Victoria Bisorca
Department Coordinator: Karen Miyahara

Career Possibilities
Health Science: Health Educator • Government Inspector • California Middle/High School Health Teacher • Researcher/Evaluator • Health Education Specialist • Public Health Educator • Patient Educator
(For more information, see www.careers.csulb.edu.)

Introduction
The Department offers undergraduate and graduate study in Health Education. For program information, students should review the information found on our website http://www.csulb.edu/colleges/chhs/departments/health-science/, Academic Advising and Resource Center (AARC), or the appropriate Health Science Department Coordinator.

Undergraduate Programs

Bachelor of Science in Health Science
The basic University requirements for graduation with a B.S. Degree in Health Science consist of:
1. completion of general education requirements,
2. completion of all courses identified on the Program Planner for the Option selected, with no grade lower than a "C" for each listed course or approved substitute,
3. completion of a minimum of 120 units, at least 40 units of which must be upper division. Upper division courses are numbered 300 to 499.

Major Core Requirements
All Health Science majors must complete the required core. The core of the Health Science program contains five areas of competence: Statistics, Program Development, Professionalism, Health Services Organization and Health Promotion. All majors must complete at least one course from each competency area. Courses must be selected in consultation with an advisor.

Option in Community Health Education (120 units)
The Community Health Education option is designed for persons whose occupational objective is to serve as a community health educator with an official, voluntary, or corporate health agency.

Lower Division:
Take all of the following courses:
- H SC 210 Contemporary Health Issues (3)
  Prerequisite: GE Foundation requirements.
- BIOL 205 Human Biology (4)
  Prerequisite: GE Foundation requirements.
  or
- BIOL 207 Human Physiology (4)
  Prerequisite: GE Foundation requirements

and
- BIOL 208 Human Anatomy (4)
  Prerequisite: Grade of "C" or better in one of the following:
  ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

Additionally, take:
- CHEM 100 Chemistry and Today's World (4) or Higher
  Prerequisite: One Foundation course
- NUTR 132 Introductory Nutrition (3)
  Prerequisite/Corequisites: One Foundation course.
- PSY 100 General Psychology (3)
  Prerequisite/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following:
  AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150
  or equivalent.

Take one of the following courses:
- PSY 110 Introductory Statistics (4)
  Prerequisite: Eligible to take a General Education Mathematics course.
- SOC 170 Elementary Statistics (4)
  Prerequisite: Eligible to take a General Education Mathematics course.
- STAT 108 Statistics for Everyday Life (3)
  Prerequisites: None.

Upper Division:
Take all of the following courses:
- H SC 301 Orientation to Health Science (3)
  Prerequisite: Open to Health Science majors and minors only.
- H SC 400 Principles of Epidemiology (3)
  Prerequisite: Open to Health Care Administration and Health Science majors and minors only. Health Care Administration majors: SOC 170 or PSY 110 or STAT 108. Health Science majors: H SC 403.
- H SC 401 Community Health Education (3)
  Prerequisite: HSC 301.
- H SC 402 Applied Concepts of Community Health Education (3)
  Prerequisite: H SC 301, H SC 401 and H SC 421.
- H SC 403 Community Health Statistics (3)
  Prerequisite: GE Math and SOC 170 or PSY 110 (PSY 100 prereq) or STAT 108.
- H SC 405 Health Education Program Evaluation and Measurement (3)
H SC 421 Health Behavior (3)  Prerequisite: Upper-division standing.

H SC 430 School Health Program (3)  Prerequisite: HSC 301.

H SC 435 Health Promotion Risk Reduction (3)  Prerequisite: HSC 421.

H SC 440 Applied Concepts of Health Science (3)  Prerequisite: HSC 430. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

H SC 485 Internship in Community Health Education (3)  Prerequisite: H SC 402 and H SC 405.

Take three courses selected from the following:
H SC 407, H SC 420, H SC 422, H SC 423, H SC 425, H SC 427

Take one course selected from the following:
PSY 351 or SOC 335

Take one course selected from the following:
SOC 320, SOC 462, SOC 464

Take one course selected from the following:
COMM 334, COMM 335

Option in School Health Education (120 units)
The School Health Option is designed for persons who wish to become health science teachers in California middle and high schools. The program is approved by the California Commission on Teacher Credentialing and meets subject matter competence requirements for the Single Subject Teaching Credential in Health Science. Prospective students should consult the department's Health Science Single Subject Advisor early to plan their program.

Requirements
Lower Division:
Take all of the following courses:
H SC 210 Contemporary Health Issues (3)  Prerequisite: GE Foundation requirements.
BIOL 205 Human Biology (4)  Prerequisite: GE Foundation requirements.

or
BIOL 207 Human Physiology (4)  Prerequisite: GE Foundation requirements

and
BIOL 208 Human Anatomy (4)  Prerequisite: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

Additionally, take:
CHEM 100 Chemistry and Today's World (4) or Higher  Prerequisite: One Foundation course
NUTR 132 Introductory Nutrition (3)  Prerequisite/Corequisites: One Foundation course.
PSY 100 General Psychology (3)  Prerequisite/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or AM 150 or ALP 150 or equivalent.

Take one of the following courses:
PSY 110 Introductory Statistics (4)  Prerequisite: Eligible to take a General Education Mathematics course.
SOC 170 Elementary Statistics (4)  Prerequisite: Eligible to take a General Education Mathematics course.
STAT 108 Statistics for Everyday Life (3)  Prerequisite: None.

Upper Division:
Take one of the following:
COMM 335 Persuasive Speaking (3)  Prerequisite: GE Foundation requirements.
Approved upper-division COMM course

Take one of the following courses:
EDP 301 Child Development and Learning (3)  Prerequisite: None.
EDP 302 Early and Late Adolescent Development (3)  Prerequisite: None.
EDP 305 Educational Psychology (3)  Prerequisite: None.

Take one of the following courses:
ANTH 329; CDFS 319; HSC 420; PSY 378; SOC 320, SOC 423

Subject Matter Courses
Take all of the following courses:
ETEC 444 Computer Technology in Education, Level I (3)  Prerequisite: Course design assumes familiarity with topics introduced in ETEC 110.
H SC 210 Contemporary Health Issues (3)  Prerequisite: GE Foundation requirements.
H SC 301 Orientation to Health Science (3)  Prerequisite: Open to Health Science majors and minors only.
H SC 401 Community Health Education (3)  Prerequisite: HSC 301.
H SC 403 Community Health Statistics (3)  Prerequisite: GE Math and SOC 170 or PSY 110 (PSY 100 prereq) or STAT 108.
H SC 421 Health Behavior (3)  Prerequisite: Upper-division standing.
H SC 422 Environmental Health (3)  Prerequisite: Upper-division standing.
H SC 423 Consumer Health (3)  Prerequisite: Upper-division standing.
H SC 425 Human Sexuality and Sex Education (3)  Prerequisite: GE Foundation, one or more Exploration courses, and upper-division standing. Recommended: PSY 100.
H SC 427 Drugs and Health (3)  Prerequisite: Upper-division standing.
H SC 430 School Health Program (3)  Prerequisite: HSC 301.
H SC 435 Health Promotion/Risk Reduction (3)  Prerequisite: HSC 421.
H SC 440 Applied Concepts of Health Science (3)  Prerequisite: HSC 430. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Single Subject Teaching Credential in Health Science

In addition to meeting the subject matter competence requirement for the Single Subject Teaching Credential in Health Science, prospective health teachers are also required to complete an additional 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Health Science Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

Minor in Health Science

Twenty-four units required.

Take all the following courses:
- H SC 301 Orientation to Health Science (3) Prerequisite: Open to Health Science majors and minors only.
- H SC 401 Community Health Education (3) Prerequisite: HSC 301.
- H SC 430 School Health Program (3) Prerequisite: HSC 301.
- H SC 435 Health Promotion Risk Reduction (3) Prerequisite: HSC 421.
- H SC 440 Applied Concepts of Health Science (3) Prerequisite: HSC 430. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Take three courses from the following courses:

Graduate Programs

Graduate Program in Health Education


In order to be admitted to the graduate program for study toward a degree, a prospective candidate must apply both to this department and the University. Contact the Director of Graduate Studies for current requirements.

The graduate student will be prepared for a leadership role in a school or community setting and for admission to doctoral programs. Admitted graduate students must contact the Director of Graduate Studies for advisement early in their first semester of enrollment in order to develop an approved program of study.

Master of Public Health

Option in Community Health Education

The Master of Public Health in Community Health provides an opportunity for students: to specialize in community health education and health promotion within the general context of Public Health; to increase competence in designing, implementing, and evaluating social behavior changes programs in preparation for serving in various health agencies; prepare for teaching at college and university levels; and for administrative positions in public and private health agencies.

Admission Requirements

Applicants must apply both to the Department and the University. Applications are available online at www.csulb.edu/health-science.

1. Each applicant must request that a copy of official transcript(s) of all work be sent to the university’s Office of Enrollment Services.

2. A bachelor’s degree with a major in health education, which articulates with the course requirements for the same degree at California State University, Long Beach; or a bachelor’s degree in a related discipline with a minimum of 21 units of upper division course work comparable to those required of the Health Science major at the University; or a bachelor’s degree in a related discipline and willingness to make up any deficiencies in prerequisite Health Science courses. Prerequisite for all courses carrying graduate credit must have been completed within seven years of acceptance to the graduate program. If any prerequisite is outdated, it must be repeated. Credit may be obtained by (1) written examination on the subject matter or (2) providing documented evidence of currency in the subject area.

3. An overall undergraduate GPA of at least 3.0. Students with less than a 3.0 GPA on the last 60 units of undergraduate units attempted, but who show promise in all other aspects, may be given special consideration after petitioning for conditional admission into the program through the Director of Graduate Studies.

4. Acceptance by the University as a student with graduate standing.

5. A maximum of 9 units of graduate work at the post-baccalaureate level may be credited to a student’s program requirements upon departmental acceptance to the graduate program.

6. Submission of analytic, quantitative and verbal scores from the Graduate Record Examination (GRE) to the University.

7. Submission, through CSU Mentor, of a copy of the CSU graduate application.

8. Three letters of recommendation from persons with whom the applicant has worked and/or who have direct knowledge of the applicant’s professional and academic potential as a health educator.

9. A separate personal statement of reasons for pursuing this field of study and comments about interests and
experience that are germane to career objectives. Submit a personal resume reflecting the applicant’s education and relevant experience.

10. At least one year’s full-time (or equivalent) paid or volunteer experience in Health Education or a closely related health field. Preference will be given to those with greater experience and ability.

**Advancement to Candidacy**

1. Satisfy the general university requirements for advancement to candidacy:
   A. Fulfill the Graduation Writing Assessment Requirement (GWARS);
   B. Maintain at least a 3.0 average for all course work attempted as a graduate student;
   C. Complete the following: HSC 500, HSC 503, HSC 570

2. Approval by the Director of Graduate Studies and Associate Dean for Academic Programs of the College of Health and Human Services.

**Requirements - Comprehensive Exam Option**

1. A minimum of 42 units of approved upper-division and graduate-level courses including:
   A. 39 units of core classes including:
      - HSC 500 Principles of Epidemiology (3)
        Prerequisites: HSC 403 or equivalent.
      - HSC 503 Advanced Community Health Statistics (3)
        Prerequisites: HSC 403 or equivalent.
      - HSC 508 Administrative Relationships in Health Education Programs (3)
        Prerequisites: Undergraduate major in Health Science or related field.
      - HSC 528 Advanced Environmental Health (3)
        Prerequisites: HSC 500.
      - HSC 570 Theoretical Concepts and Issues in Health Science (3)
        Prerequisites: None.
      - HSC 581 Curriculum Dev in Health Education (3)
        Prerequisites: Undergraduate major in Health Science or related field.
      - HSC 585 Health Education Internship (3)
        Prerequisites: Advancement to candidacy or consent of instructor.
      - HSC 624 Seminar in Community Analysis and Program Planning (3)
        Prerequisites: Undergraduate major in Health Science or related field; HSC 402 or department consent.
      - HSC 625 Advanced Community Health Education (3)
        Prerequisites: Undergraduate major in Health Science or related field; HSC 624 or department consent.
      - HSC 626 Integrative Seminar in Public Health (3)
        Prerequisites: HSC 570, advancement to candidacy.
      - HSC 696 Research Methods (3)
        Prerequisites: HSC 500, HSC 503
   B. 3 units of electives at the 500/600 level;

A comprehensive written examination (see department for guidelines) or a thesis with an oral exam. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

**Requirements - Thesis Option**

A. 39 units of core classes including:
   - HSC 500 Principles of Epidemiology (3)
   - HSC 503 Advanced Community Health Statistics (3)
   - HSC 508 Administrative Relationships in Health Education Programs (3)
   - HSC 528 Advanced Environmental Health (3)
   - HSC 570 Theoretical Concepts and Issues in Health Science (3)
   - HSC 581 Curriculum Dev in Health Education (3)
   - HSC 585 Health Education Internship (3)
   - HSC 624 Seminar in Community Analysis and Program Planning (3)
   - HSC 625 Advanced Community Health Education (3)
   - HSC 626 Integrative Seminar in Public Health (3)
   - HSC 696 Research Methods (3)
   - HSC 698 Thesis (1-6)

Prerequisites: HSC 503, HSC 570, HSC 696 and advancement to candidacy.

B. 9-12 units of electives in a specialty field at the 500/600 level; A thesis with an oral exam.

**Single Subject Teaching Credential in Health Science**

For information, refer to the undergraduate section in this department.

**Courses (HSC)**

**LOWER DIVISION**

150. Medical Terminology (1)
Development of medical vocabulary emphasizing the building of terms utilizing prefixes, combining forms and suffixes. Includes medical terms for application in the interpretation of medical records.
(Lecture-discussion 1 hour) Letter grade only (A-F).

210. Contemporary Health Issues (3)
Prerequisite: GE Foundation requirements.
Develop a scientific understanding of contemporary health issues enabling one to examine, interpret, evaluate and apply to individual personal health; includes health related issues experienced throughout the life cycle and an identification of community health resources.
UPPER DIVISION

301. Orientation to Health Science (3)
Prerequisite: Open to Health Science majors and minors only.
Overview of philosophy of Health Science Department Orientation to degree requirements, career opportunities, and theoretical and practical issues of health education as a profession.
Letter grade only (A-F).

333. Latino Nutrition, Health and Chronic Disease Prevention (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses and Upper-division standing.
Explores nutrition-related and contextual factors associated with the high rates of chronic disease among diverse Latino-specific subpopulations and provide culturally-relevant strategies for prevention.
Letter grade only (A-F). Same course as NUTR 333. Not open for credit to students with credit in NUTR 333.

400. Principles of Epidemiology (3)
Prerequisite: Open to Health Care Administration and Health Science majors and minors only. Health Care Administration majors: SOC 170 or PSY 110 or STAT 108. Health Science majors: H SC 403.
Application of epidemiologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents, and geriatric problems.
Letter grade only (A-F). (Lecture 3 hours)

401. Community Health Education (3)
Prerequisite: H SC 301.
Concepts of community health education with emphasis on community organization; application of these concepts to health education activities of official, voluntary and professional health agencies.
Letter grade only (A-F).

402. Applied Concepts of Community Health Education (3)
Prerequisites: H SC 301, H SC 401 and H SC 421
Identification and application of concepts unique to community health education; includes examination of theoretical foundations, marketing and promotion techniques, and application of health education strategies.
Letter grade only (A-F).

403. Community Health Statistics (3)
Prerequisites: GE Math and SOC 170 or PSY 110 (PSY 100 prereq) or STAT 108 or HDEV 190
Representative topics are descriptive statistics, sample designs, central tendency, and variability. Statistical tools for inferential analyses include hypothesis testing and parameter estimation.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

405. Health Education Program Evaluation and Measurement (3)
Prerequisites: H SC 403 and H SC 421
Research designs, standardized measurements, data collection, analysis, and reporting are used to develop evaluation skills to assess program outcomes. Program activities promoting behavior change in communities, organizations, groups and individuals are evaluated.
Letter grade only (A-F). (Discussion 3 hours)

407. Health Equity and Health Disparities Research in the US (3)
Prerequisite: GE Foundation, one or more Exploration courses and upper-division standing.
Explores socioeconomic, biologic, environmental, and institutional factors associated with health issues and disease. Students will learn about research and interventions to affect positive health outcomes and access for underserved, underrepresented diverse populations.
Letter grade only (A-F).

411A. Health Science for Elementary Teachers (3)
Prerequisite: Upper-division standing. Corequisite: Current CPR Certification required.
Contemporary teaching of health education in elementary schools; emphasizes coordinated school health, sex education, nutrition, child abuse, violence, community and human ecology. Based upon California Health Framework, meets state credential requirements.
Not open for credit to health Science majors or minors.

411B. Health Science for Secondary Teachers (3)
Prerequisite: Upper-division standing. Corequisite: Current CPR Certification required.
Contemporary teaching of health education in secondary schools; emphasizes coordinated school health, integrating health content and instruction into other subjects, drugs, sexuality, nutrition, child abuse, violence, community and human ecology. Based upon California Health Framework, meets state credential requirements.
Not open for credit to health Science majors or minors.

420. International Health (3)
Prerequisite: GE Foundation, one or more Exploration courses, and upper-division standing.
Analysis of current health problems in the world; examination of contributing social, psychological, physical, legal and cultural factors; international programs for the improvement of world health; structure and functions of world health agencies and organizations.
Course fee may be required.

421. Health Behavior (3)
Prerequisites: Upper-division standing
Survey of contemporary research on the health effects of human behavior. Special emphasis is given to current issues of health behavior, decision-making in contemporary society, values clarification and contemporary theories of behavior change (e.g., health belief model).
Letter grade only (A-F).

422. Environmental Health (3)
Prerequisite: Upper-division standing
Examination of reciprocal relationship existing between man and his environment, with the emphasis directed toward the health related consequences of man’s actions in the environment.
Letter grade only (A-F).

423. Consumer Health (3)
Prerequisite: Upper-division standing
Effective selection of health information, products and services; medical quackery and fraudulent health practices; laws and agencies protecting the consumer; health care delivery systems; and influences of corporate control on the consumer movement in contemporary society.
Letter grade only (A-F).
425. Human Sexuality and Sex Education (3)
Prerequisite: G.E. Foundation, one or more Exploration courses, and upper-division standing. Recommended: PSY 100.
Biomedical, sociological, and psychological aspects of human sexuality, the communication of sexual information, the implementation, content and evaluation of family life and sex education in the schools.

427. Drugs and Health (3)
Prerequisite: Upper-division standing.
Study of psychoactive drugs with primary attention to alcohol, nicotine, caffeine, cannabis, hallucinogens, narcotics and other drugs; examination of trends, philosophical issues and behavioral practices associated with drug use and dependence. Includes physiological psycho-social, legal, historical, philosophical and political aspects; treatment-rehabilitation activities and programs; and drug abuse prevention education.
Not open for credit to students with credit in H SC 327.

430. School Health Program (3)
Prerequisite: H SC 301.
Intensive analysis of the philosophy, organization and legal aspects of the school health program. Includes school and community coordination for a team approach to health education for the school age individual.
Letter grade only (A-F).

435./535. Health Promotion and Risk Reduction (3)
Prerequisite: H SC 421 or consent of instructor.
Health promotion/risk reduction program content, development and implementation for use in corporate, hospital and public settings. Intended primarily for Health Science majors.
Letter grade only (A-F). (Discussion 3 hours)

440. Applied Concepts of Health Science (3)
Prerequisite: H SC 430. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Identification and application of the concepts and modes of inquiry unique to the discipline of health science; development of appropriate curriculum based upon an analysis of individual, school and community needs and interests.
Letter grade only (A-F).

485. Internship in Community Health Education (3)
Prerequisites: H SC 402 and H SC 405
Preparation for and introduction to work experience in a community health organization. A minimum of 80 hours work experience in a community health organization under direct supervision of a preceptor.
Letter grade only (A-F). (6 hours activity)

486. Internship and Careers in Community Health Education (3)
Prerequisite: Open to Health Science majors only. H SC 485 and consent of instructor.
Culminating experience in a community health setting. Assess needs, plan and implement health education programs and strategies. Evaluation of work experience in a community health organization where a minimum of 120 hours work experience required under the direct supervision of a preceptor.
Letter grade only (A-F). (6 hours activity)

490. Independent Studies in Health Science (1-3)
Prerequisite: Consent of instructor.
Students conduct independent library or laboratory research under the supervision of a faculty member and write a report of the investigation.
May be repeated to a maximum of 6 units.

497. Selected Topics in Health Science (3)
Group investigation of selected topics.
Letter grade only (A-F). May be repeated for a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

GRADUATE LEVEL

500. Principles of Epidemiology (3)
Prerequisite: HSC 403 or equivalent.
Application of epidemiologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents, and geriatric problems.
Letter grade only (A-F). (Lecture 3 hours)

503. Advanced Community Health Statistics (3)
Prerequisite: HSC 403 or equivalent.
Analysis of quantitative health related data. Topics include mean and percentage comparisons, multiple regression, logistic regression and survival analysis. Use of computers is required.
Letter grade only (A-F). (Discussion, 3 hours)

507. Health Equity and Health Disparities Research in the US (3)
Prerequisite: Undergraduate major in Health Science or related field.
Explores socioeconomic, biologic, environmental, and institutional factors associated with health issues and disease. Students will learn about research and interventions to affect positive health outcomes and access for underserved, underrepresented diverse populations.
Letter grade only(A-F).

508. Administrative Relationships in Health Education Programs (3)
Prerequisite: Undergraduate major in Health Science or related field.
Introduction to administrative theory; investigation of administrative responsibilities and functions implicit in school health or other health education programs.
Letter grade only (A-F).

528. Advanced Environmental Health (3)
Prerequisite: HSC 500.
Organization and methods for promoting human health by controlling environmental factors.
Letter grade only (A-F).

534. Advanced Latino Nutrition, Health and Chronic Disease Prevention (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields.
Explores nutrition-related and contextual factors associated with the high rates of chronic disease among diverse Latino-specific subpopulations and provides culturally relevant strategies for prevention.
Letter grade only (A-F). Same course as FCS 534. Not open for credit to students with credit in FCS 534.

535./435. Health Promotion and Risk Reduction (3)
Prerequisite: H SC 421 or consent of instructor.
Health promotion/risk reduction program content, development and implementation for use in corporate, hospital and public settings. Intended primarily for Health Science majors.
Letter grade only (A-F). (Discussion 3 hours)
537. Culturally Responsive Nutrition Promotion for Latinos (3)
Prerequisite: Open to students enrolled in graduate programs in Family and Consumer Sciences, Health Science, or related fields. 
Explores the need and methods to develop culturally and linguistically relevant nutrition education with a focus on the Latino population. Students analyze, evaluate, and create culturally competent nutrition interventions for the Latino community.
Letter grade only (A-F). Same course as FCS 537. Not open for credit to students with credit in FCS 537.

570. Theoretical Concepts and Issues in Health Science (3)
Identification and analysis of current trends, philosophies and issues in health science.
Letter grade only (A-F).

581. Curriculum Development in Health Education (3)
Prerequisite: Undergraduate major in Health Science or related field.
Principles of curriculum development; selection and evaluation of resource materials; theory and practice in measurement in health education.
Letter grade only (A-F).

585. Health Education Internship (1-6)
Prerequisite: Advancement to candidacy and department consent.
Extended applied experience under guidance of faculty and preceptors in an approved health education practice setting.
Letter grade only (A-F). (480 hours of field placement or the equivalent experience.)

590. Independent Study (1-3)
Independent research conducted under the supervision of a full-time faculty member resulting in a written report of the investigation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

597. Selected Topics in Health Science (3)
Group investigation of selected topics. Topics are announced in the Schedule of Classes.
Letter grade only (A-F). May be repeated for a maximum of 6 units with different topics in different semesters.

624. Seminar in Community Analysis and Program Planning (3)
Prerequisite: Undergraduate major in Health Science or related field; HSC 402 or department consent.
Process and techniques of community analysis and program planning.
Letter grade only (A-F).

625. Advanced Community Health Education (3)
Prerequisite: Undergraduate major in Health Science or related field; HSC 624 or department consent.
Advanced study of educational and related theory applicable to the conduct of health education programs in community and other settings. Methods of promoting change; role as program and staff director and evaluation techniques.
Letter grade only (A-F).

626. Integrative Seminar in Public Health (3)
Prerequisite: HSC 570, advancement to candidacy.
Summative critical analysis of current methodologies, research, and practices in public health and health education in particular. Synthesis of coursework, internship, and other relevant experiences in the graduate program.
Letter grade only (A-F).

696. Research Methods (3)
Prerequisite: Undergraduate major in Health Science or related field; undergraduate course in statistics.
Introduction to research methodology in the area of Health Science.
Letter grade only (A-F).

697. Directed Studies (1-3)
Prerequisite: Advancement to candidacy.
Independent investigation of research problems in health education.
Letter grade only (A-F).

698. Thesis (1-3)
Prerequisite: HSC 696, advancement to candidacy.
Planning, preparation and completion of an approved thesis.
May be repeated to a maximum of 6 units in different semesters.
Department Chair: David A. Shafer  
Department Office: Faculty Offices 2 (FO2), Room 106  
Telephone: (562) 985-4431  
Website: http://www.cla.csulb.edu/departments/history/  
Faculty: Houri Berberian, Emily Berquist, Jeff Blutinger, Patricia A. Cleary, Jane Dabel, David C. Hood, Ali Igmen, Andrew Jenks, Arnold P. Kaminsky, Marie Kelleher, Margaret Kuo, Arlene Lazarowitz, Guotong Li, Eileen Luhr, Brett Mizelle, Caitlin Murdock, Charles Ponce De Leon, Sarah Schrank, Michiko Takeuchi, Nancy L. Quam-Wickham, Hugh Wilford  
Advisors:  
Undergraduate: Ali Igmen, Jane Dabel  
Core Coordinator: Jane Dabel  
Credential: Eileen Luhr  
Graduate: Caitlin Murdock  
Office Manager: Cris Hernandez  

Career Possibilities  
Historian • Writer • Editor • Administrators in Historic and Cultural Preservation • Teacher • Museum Curator • Multimedia Specialist • Preservation and Environmental Lawyer • College Instructor • Film Maker • Environmental Review Specialist • Human Resources Manager • Advertising Analyst • Systems Analyst • Insurance Broker • Executive (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)  

Introduction  
Department advising is available to all students interested in a major, minor, or a teaching credential. Students are strongly encouraged to see an advisor early in the development of their programs. Undergraduate majors should see History department staff to fill out a work sheet before meeting with the Undergraduate Advisor. Students interested in the M.A. program should contact History department staff for application information. Graduate students should see the Graduate Advisor. Applicants for the Social Science Credential Single Subject Program must see Credential Advisors. All advisors maintain extended hours during the semester and are available at other times by appointment. The department has open advising days in the week prior to each new semester; call the department for information.  

History  
Students in the B.A. in History will demonstrate basic research skills, writing skills, and presentation skills.  
The History Department awards many scholarships and prizes to outstanding undergraduate and graduate students. For further information about these awards, given annually, inquire at the Department office no later than the beginning of the spring semester. Undergraduate and graduate students are eligible for the Department's facilitator program for which they may earn units in the major; see Department staff for applications. Graduate assistantships and readerships are also frequently available to qualified graduate and undergraduate students. The Department recruits outstanding students for Phi Alpha Theta, the national honor society for History students.  
The Department of History offers graduate study leading to the Master of Arts degree. The candidate is responsible for observation of the general requirements stated in this catalog as well as specific departmental requirements listed in the M.A. brochure, available on request from the Department office.  

General Education Requirement in United States History  
To fulfill State of California requirements, students must take three (3) units of U.S. history. This requirement can be met by HIST 172 or HIST 173 or HIST 300. Students who have taken U.S. history at another institution should check with the History Department before enrolling.  

Undergraduate Programs  

Bachelor of Arts in History (120 units)  

Requirements  
Majors must take 48 units of history: 9 lower-division and 39 upper-division.  
1. Core (15 units):  
Take the following courses with a grade of "C" or better:  
HIST 301 Methodology of History (4)  
Prerequisite: History majors only.  
HIST 302 Theory and History (4)  
Prerequisite: HIST 301. Required of all History majors. Must be taken in the semester immediately following successful completion of HIST 301.  
Take the following course:  
HIST 499 Senior Seminar (4)  
Prerequisites: HIST 301, HIST 302; 18 units of upper-division course work in History; at least two courses (6 units) of which must be in the 499 seminar's area of concentration.  
(HIST 301 MUST be taken in the first semester of upper-division course work in the major. HIST 301 is a prerequisite for HIST 302, and both courses are prerequisites for HIST 499.)  
Take one history course that fulfills the gender, race, and ethnicity requirement (from a list of approved courses available from the Undergraduate Advisor).  
2. Fields of emphasis (18 units)  
Option One: two fields of nine units each.  
Option Two: three fields of six units each.  
Select the fields from the following:  
A. Africa and the Middle East  
B. Ancient and Medieval Europe  
C. Asia  
D. Latin America  
E. Modern Europe (Including Britain)  
F. United States  
G. World  
History B.A. students with a field of concentration in Modern European history must take either HIST 330 or HIST 331.
History B.A. students with a field of concentration in United States history must have, at the minimum, one course in U.S. history numbered 372-379 or 380A or 380B, and one course in U.S. history at the 400 level.

3. Breadth (6 units):
   Take six units in a field (or fields) of history outside of their fields of emphasis.

4. Develop a portfolio (beginning with HIST 301) reflecting work in the History major. The portfolio will be evaluated as one of the requirements in the senior seminar (HIST 499). Complete 18 units of upper-division work in the major.

NOTE: History majors are strongly encouraged to include the study of foreign language and literature in their programs. Students working for a single-subject credential in secondary education must consult with the College's secondary education advisor as to the applicable credential major requirements.

**History/Social Science Teaching Specialization**

The History/Social Science teaching specialization is designed for prospective secondary History/Social Science teachers. Students receive a B.A. in History, but they complete a sequence of classes that satisfies the state-mandated requirement in subject matter competence for the Single Subject Teaching Credential. As part of the major, students in the History/Social Science Teaching Emphasis must take the following courses:

- **HIST 172 Early United States (3)**
  - Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

- **HIST 173 Recent United State History (3)**
  - Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

- **HIST 211 World History: Origins to 1500 (3)**
  - Prerequisite: GE Foundation requirements.

- **HIST 212 World History: Since 1500 (3)**
  - Prerequisite: GE Foundation requirements.

- **HIST 396 Contemporary World History (3)**
  - Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.

- **HIST 473 California History (3)**
  - Prerequisite: None

- **HIST 401 History for Secondary Social Science Teachers (4)**
  - Prerequisites: completed a majority of all coursework in the Social Science Subject Matter Program. Capstone course for students in Social Science Subject Matter Program.

In addition, students should select US History as one of their fields of emphasis in the History major.

The state-mandated subject matter competence requirement also includes several Social Science courses outside the History major. Students in the History/Social Science Teaching Emphasis must, in meeting their General Education requirements, take the following courses:

- **POSC 100 Introduction to American Government (3)**
  - (fulfills GE Category D1b: Constitution & American Ideals)
  - Prerequisite/Corequisite: GE A1 requirement.

- **ECON 300 Fundamentals of Economics (3)**
  - (fulfills GE Category D2: Social and Behavioral Sciences and History)
  - Prerequisites: GE Foundation requirements.

- **GEOG 100 World Regional Geography (3)**
  - (fulfills GE Category D2: Social and Behavioral Sciences and History)

In addition to meeting the subject matter competence requirement for the Single Subject Teaching Credential in Social Science, prospective History/Social Science teachers are also required to complete 45 units of professional preparation in the Single Subject Teaching Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all the credential program courses, except student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

Prospective students should consult with the History/Social Science Education Credential Program Advisor in the History Department to plan their program.

**Single Subject Teaching Credential in Social Science for Non-History Majors**

The core discipline in the California State History/Social Science curriculum is History, but courses in the subject matter program also align with social science majors such as Political Science, Economics, and Geography. In order for non-History majors to demonstrate subject matter competence by course work for the History/Social Science teaching credential, candidates must complete 39 units from the core requirements listed below, which may be taken as part of the BA major or as electives. Students must also complete 15 additional units in the breadth area. Prospective students should consult with the History/Social Science Credential Advisor in the History department early to plan their program.

**Requirements**

Core (40 units)

Take each of the following courses:

- **HIST 172 Early United States History (3)**
  - Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

- **HIST 173 Recent United State History (3)**
  - Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

- **HIST 211 World History: Origins to 1500 (3)**
  - Prerequisite: GE Foundation requirements.

- **HIST 212 World Since 1500 (3)**
  - Prerequisite: GE Foundation requirements.

- **HIST 396 Contemporary World History (3)**
  - Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Courses must be selected from each of the following:

- **HIST 401 History for Secondary Social Science**
- **Capstone:**
  - History/Social Science Teaching:
    - Political Science:
      - POSC 100 Introduction to American Government (3)
      - POSC 218 Global Politics (3)
    - Geography:
      - GEOG 100 World Regional Geography (3)
      - GEOG 306 United States and Canada (3)
    - Economics:
      - ECON 300 Fundamentals of Economics (3)

**Breadth Requirements (15 units)**

Courses must be selected from each of the following fields.

1. **Diversity in History**
   - Candidates must select three units from the following:

2. **United States Studies**
   - Candidates must select six units from the following:
     - AFRS 332, AFRS 400; AIS 335, AIS 485; ASAM 335, ASAM 345; ANTH 301, ANTH 332, ANTH 339; AMST 310, AMST 350; CHLS 300 (same as HIST 370)*; CHLS 350; ECON 355; GEOG 304; HIST 370 (same as CHLS 300)*; HIST 371, HIST 372, HIST 373, HIST 375, HIST 376, HIST 378, HIST 379, HIST 380A, HIST 380B, HIST 407, HIST 451, HIST 471, HIST 474, HIST 477A, HIST 477B, HIST 478, HIST 479, HIST 480, HIST 482, HIST 485A*, HIST 485B*, HIST 486*, PHIL 451; POSC 308, POSC 311, POSC 312, POSC 321, POSC 323, POSC 326, POSC 412, POSC 423, POSC 424; R/ST 302, R/ST 482; SOC 420, SOC 427; WGSS 308, WGSS 315, WGSS 318, WGSS 320.

3. **Global Studies**
   - Candidates must select six units from the following:

*Cannot be used as part of this breadth requirement if this course is chosen as part of the Diversity in History requirement.

In addition to meeting the subject matter competence requirement for the Single Subject Teaching Credential in Social Science, prospective History/Social Science teachers are also required to complete 45 units of professional preparation in the Single Subject Teaching Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all the credential program courses, except student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult with the History/Social Science Education Credential Program Advisor in the History Department to plan their program.

**Honors in History**

Students with a major in history may be admitted to the History Department honors program (option of the University Honor's Program) provided they have:

1. Completed at least 30 semester units of college- or university-level courses, including at least two history courses;
2. A minimum cumulative GPA of 3.3, and a 3.5 in history courses;
3. Submitted to the department honors committee chairperson two letters of recommendation from faculty members;
4. Received admission approval from the departmental honors committee.

Students who have the minimum GPA requirements established by the University Honors Program (3.0 overall and 3.3 in the major, but who do not meet History departmental GPA requirements above may petition the department honors committee for conditional admission to the Department Honors Program).

In order to graduate with Honors in history a student must:

1. Complete all regular requirements for the history major;
2. Complete HIST 501 Historical Thinking and the Discipline of History (3)
3. Complete HIST 498H Honors Research (3)
4. Complete HIST 499H Honors Thesis (3)
5. Complete 6 units of additional course work chosen in consultation with the Department Honors Advisor; such courses normally will require two analytical papers or a research paper on a honors level of performance;
6. Have at the time of graduation a cumulative GPA of
at least 3.3 and a GPA of at least 3.5 in history. Students admitted to the program must maintain a file in the University Honors Program which will include copies of proposals for 498H and 499H.

Oral History Program
This program, housed in the Department of History, is designed to teach and train history students in the use of materials that focus on largely unwritten sources. History majors, and social science credential students with a history concentration, are urged to take HIST 402.

Minor in History
A minimum of 21 units which must include:
Lower Division:
Take a six-unit sequence from the following:
HIST 211 World History: Origins to 1500 (3)
Prerequisite: GE Foundation requirements.
HIST 212 World Since 1500 (3)
Prerequisite: GE Foundation requirements.
or
HIST 131 Early Western Civilization (3)
Corequisite: ENGL 100 or GE Composition (Area A1).
HIST 132 Modern Western Civilization (3)
Corequisite: ENGL 100 or GE Composition (Area A1).
Upper Division:
Take a minimum of 12 units, which must include at least six units in each of two areas as defined for the major.

Minor in Jewish Studies
For requirements, see description in the Jewish Studies section of this catalog.

Minor in Middle Eastern Studies
Requirements
A minimum of 18 units.
Core
Minimum twelve (12) units:
At least three units must be in History of the Middle East (HIST 320 or HIST 432/532)
ARAB 101A, ARAB 101B, ARAB 201A, ARAB 201B,
HIST 320, HIST 394, HIST 417, HIST 432/532, I/ST 405, POSC 367, R/ST 331.
Electives
Must take a minimum of six additional units, selected with an advisor, from the following courses without repeating courses from the core:
ARAB 101A, ARAB 101B, ARAB 201A, ARAB 201B; AH 116; AH 465/565; CWL 104, CWL 402/502; GEOG 309;
HIST 320, HIST 393, HIST 394, HIST 417, HIST 418/518,
HIST 432/532, I/ST 405, POSC 367; R/ST 331
Three of these units may be taken from the following courses, which have a global and comparative perspective, without repeating courses from core:
CWL 449A, HIST 440/540; WGSS 401; R/ST 458/558, HIST 395
*Other languages of the Middle East may be substituted with the approval of the Director of the program.

Graduate Programs

Master of Arts in History
Prerequisites
1. A bachelor’s degree in history with an overall 3.0 GPA or higher or
2. A bachelor’s degree with 24 units of upper-division courses in history. These courses must be comparable to those required of a major in history at this University. Deficiencies are determined by the graduate advisor after consultation with the student and after study of transcript records.

Requirements
The Master of Arts in History is a program of 30 minimum units as defined below.
Core Courses required of all students:
HIST 501 Historical Thinking and the Discipline of History (3)
Prerequisites: Students must be first-semester candidates in the M.A. program in history, candidates in the history B.A. honors program, or M.A. students from another department with permission of the instructor.
HIST 502 Historical Research and Writing (3)
Prerequisite: Graduate standing in History or M.A. student from another department with permission of the instructor.
Co-Requisite: History 501.
HIST 590 Selected Topics in Comparative History (3)
Prerequisite: Graduate standing in History.

Fields of Study
The fields are: Africa and the Middle East, Ancient/Medieval Europe, Asia, Latin America, Modern Europe, United States, World.
All students must pursue two fields of concentration. Take 18 units of graduate-level coursework in field:
Take one 510 in each field of study to a maximum of 6 units in each field. Different instructors within a field required when repeated. Repeatable up to 12 units.
Take a Research Seminar in at least one field of concentration.
For example:
HIST 611 (Ancient/Medieval), HIST 631 (Europe),
HIST 663 (Latin America), HIST 673 (US), and
HIST 682 (East Asia)
Electives applicable to all students:
Three units of electives of graduate (500/600) coursework in History or supporting disciplines relating to the student's Fields of Concentration. Upon written approval of the Graduate Advisor, students may substitute three to six units of upper-division (300/400) coursework in History or supporting disciplines relating to the student's Fields of Concentration. Graduate students who wish to enroll in double-numbered (400/500) courses must take the 500-level course.

All Students
The courses for Special Preparation (595), Directed Study (695), Directed Research (697), and Thesis (698) may be applied to the 18 unit total only with the permission of the graduate advisor. A student may propose a field other
than those cited above with the consent of the Graduate advisor and her/his graduate committee.

A reading knowledge of one or more foreign languages may be required, depending upon the candidate’s program of study as recommended by her/his graduate committee.

**Advancement to Candidacy**

Students should see Graduate Advisor to file Advancement to Candidacy after at least 6 units but no more than 15 units of graduate coursework are completed. Must have taken 501 as well as have passed the Graduation Writing Assessment Requirement (GWAR) or appropriate designated course. The Writing Proficiency Exam (WPE) is administered several times every academic year by the University Testing Office. Must be attempted in the first semester of graduate work and passed by the time of Advancement. Exam may be waived if earned a 4.0 or higher on writing portion of GRE.

Advancement must take place at least two semesters prior to taking Comprehensive Exams, completing the Thesis, or completing the project/teaching emphasis. Comprehensive Examination Approval Form, Thesis Committee Agreement Form, or Teaching Unit Approval Form must be filed with department at time of Advancement. At this point, a student must commit to taking exams, writing a thesis, completing a project/teaching emphasis. Advancement to Candidacy is a formal contract listing courses student has taken, is taking, and will take. Changes to contract may be made in consultation with Graduate Advisor.

**Culminating Project**

Students must select one of the following three culminating projects at time of Advancement to Candidacy (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity):

1. **Comprehensive Exams in two fields,**
2. **Thesis in one field or incorporating two fields,** or
3. **Project consisting of a two-week unit of instruction** with all lesson plans, teaching materials, and assessments to be accompanied with a historiography of the scholarship of the chosen topic of student investigation.

1. Comprehensive exams require filing a Comprehensive Examination Approval Form with the department. 
2. A thesis requires filing a Thesis Committee Agreement Form and completing HIST 698 with the thesis advisor for four (4) units. All candidates for the M.A. degree in history who have selected to write a thesis must demonstrate competency in at least one foreign language. Exceptions are granted only with the approval of the chair of a graduate student's committee and the Graduate Advisor. The language competency requirement may be met in two ways:
   a. Through an examination by a faculty member with expertise in the student's language. The exam will be a translation of about a 500-word text to be completed in two hours; a dictionary is allowed.
   b. By taking the equivalent of two full years of university level foreign language courses, with an average GPA of 3.0 in those courses. If the primary concentration is in Ancient/Medieval, a student may also fulfill this requirement by taking one year of Greek and one year of Latin. All course work completed must be within five years of admission to the graduate program.

3. The project/teaching emphasis requires filing a Teaching Unit Approval Form with the department and successfully completing HIST 605.

**Single Subject Teaching Credential in Social Science**

For information, refer to the undergraduate section in this department.

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**Courses (HIST)**

**LOWER DIVISION**

101. **Facts, Evidence and Explanation (3)**
Corequisite: ENGL 100 or GE Composition (Area A1)
Explanation of facts, evidence and explanation to explore and develop habits of critical thought using a historical and global perspective. Topics include argument, inductive and deductive reasoning, the relationship of language to logic and theoretical perspectives.
Not open for credit to students with credit in HIST 201.

105. **American Indian History - Pre-1871 (3)**
Prerequisite/Corequisite: One course from GE category A1.
A survey of the histories and cultures of American Indian Peoples in North America from pre-contact to 1871 and an analysis of the political, cultural, economic, legal and military relationships that developed between the American Indians and foreign nations. Same course as AIS 105. Not open for credit to students with credit in AIS 105.

106. **American Indian History - Post-1871 (3)**
Prerequisite/Corequisite: One course from GE category A1.
Survey of histories and cultures of American Indian Peoples in North America from 1871 to present. Same course as AIS 106. Not open for credit to students with credit in AIS 106.

131. **Early Western Civilization (3)**
Corequisite: ENGL 100 or GE Composition (Area A1).
History of western civilization from its origins through the 16th century. Stresses society, culture, and political institutions of ancient Near East, classical world, the medieval West, and renaissance and reformation Europe.

132. **Modern Western Civilization (3)**
Corequisite: ENGL 100 or GE Composition (Area A1).
European society from 16th century to present. Stresses events and phenomena which reshaped political, economic and social structures of the West and their impact throughout the world. Emphasis on intellectual, social and psychological transformation of modern life.
141. Jewish Civilization (3)
Prerequisites/Corequisites: One GE Foundation course and ENGL 100 or GE Composition (Area A1).
Survey traces diversity and complexity of Jewish traditions from ancient to modern times across different regions, exploring inter-cultural and assimilationist contacts in Diaspora. Students critically engage with Jewish source texts from various eras and regions.

161. Introduction to Latin American Studies (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
Interdisciplinary overview of history, society, and culture in Latin America – Mexico, Central American, the Caribbean, and South America. Examines political, economic, social, and cultural conditions for conflict, change, and continuity over last five hundred years. Letter grade only (A-F). Same course as SOC 161 and LAS 161. Not open for credit to students with credit in SOC 161 and LAS 161.

170. United States History Laboratory (3)
Co-requisite: Eligibility for ENGL 100 or equivalent
Active learning laboratory focusing on United States history and citizenship studies.

172. Early United States History (3)
Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).
Survey of political, social, economic, and cultural development of the United States from discovery through reconstruction. Focus on the colonial era, establishment of the new nation, sectional problems, national growth, disunion, and reconstruction. Material may be covered chronologically or topically. Not open for credit to students with credit in HIST 162A.

173. Recent United States History (3)
Prerequisite/Corequisite: One GE Foundation course and ENGL 100 or GE Composition (Area A1).
Survey of political, social, economic, intellectual, and cultural development of United States from Reconstruction to present. Focuses on different social groups; movements of people; labor; women’s and minority issues; politics, protest, and war; society and culture.

211. World History: Origins to 1500 (3)
Prerequisite: GE Foundation requirements.
Survey of pre-modern World History emphasizes interactions between civilizations. Topics include role of universal religions; political, social, and gender structures; economic and demographic development; diffusion of culture and technology via migration, commerce, and imperial expansion. Not open for credit to students with credit in HIST 111.

212. World Since 1500 (3)
Prerequisite: GE Foundation requirements.
Survey of modern World History emphasizing global interactions such as economic globalization; demographic, environmental and gender transitions; intellectual, religious and cultural transformations; imperialism and resistance to empire, birth of nations; and historical origins of contemporary world. Not open for credit to students with credit in HIST 112.

250. Early World Historical Geography (4)
Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students. Examines emergence and changing nature of urban life, cultural and technological diffusions, and cross-cultural contact and exchange between cultures and civilizations over time. Same course as GEOG 250. Not open for credit to students with credit in GEOG 250.

290. Selected Topics in History (3)
Prerequisite: GE Foundation requirements. Topics of current interest in History. Applicability to major requirements will be specified in description of individual topics. Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

GENERAL
300. United States, Past and Present
301. Methodology of History
302. Theory and History
401. History for Secondary Social Science Teachers
490. Selected Topics in History
494. Practicum in History
495. Colloquium
498. Directed Studies
498H. Honors Research
499. Senior Seminar
499H. Honors Thesis

INTERDISCIPLINARY COURSES
303. Rebels and Renegades
308. Law and Civilization
309. Men and Masculinity
310. The Greek World
312. Roman World
385. India and South Asia
400. History of Western Scientific Thought
407. Japan and the United States in the 20th Century
464. Latin American Environmental History
474. The History and Culture of American Cities
482. Recent American Environmental History

AFRICA AND THE MIDDLE EAST
320. Middle East and Central Asia.
392. Contemporary Africa, 1940-Present
393. Jews of the Modern Middle East
394. Middle Eastern Women
417. Diversity and Encounters in the Middle East
418./518. Central Asia and Afghanistan, Twentieth Century
432./532. Change and Continuity in the Modern Middle East
491. Modern and Contemporary Africa

ANCIENT AND MEDIEVAL
310. The Greek World
312. Roman World
313. Ancient Greece
314. Roman History
316. Early Middle Ages
317. High Middle Ages
318. Byzantine Empire
319. Women in the Ancient and Medieval West
351. Medieval England
### ASIAN

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>382A</td>
<td>Imperial China</td>
</tr>
<tr>
<td>382B</td>
<td>Modern China</td>
</tr>
<tr>
<td>383A</td>
<td>Japan to 1850</td>
</tr>
<tr>
<td>383B</td>
<td>Modern Japan</td>
</tr>
<tr>
<td>384</td>
<td>Popular Culture and History in Contemporary Japan</td>
</tr>
<tr>
<td>385</td>
<td>India and South Asia</td>
</tr>
<tr>
<td>386</td>
<td>History of Modern SE Asia: Colonial Era to the Vietnam War</td>
</tr>
<tr>
<td>388</td>
<td>Contemporary China</td>
</tr>
<tr>
<td>406</td>
<td>Women, Gender, and Sexuality in Asia</td>
</tr>
<tr>
<td>407</td>
<td>Japan and the United States in the 20th Century</td>
</tr>
<tr>
<td>412</td>
<td>Migration and Ethnicity in Modern China</td>
</tr>
<tr>
<td>417</td>
<td>Diversity and Encounters in the Middle East</td>
</tr>
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<td>418/518</td>
<td>Central Asia and Afghanistan, Twentieth Century</td>
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### LATIN AMERICAN

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>362</td>
<td>Colonial Latin America</td>
</tr>
<tr>
<td>364</td>
<td>Latin American Nations</td>
</tr>
<tr>
<td>365</td>
<td>Brazil</td>
</tr>
<tr>
<td>366</td>
<td>Latin American History and Literature</td>
</tr>
<tr>
<td>459</td>
<td>Religion in Colonial Latin America</td>
</tr>
<tr>
<td>460/560</td>
<td>Slavery in Latin America</td>
</tr>
<tr>
<td>461</td>
<td>History of Precolombian Mexico</td>
</tr>
<tr>
<td>462</td>
<td>Mexico</td>
</tr>
<tr>
<td>463</td>
<td>Power and Violence in Latin America and the Caribbean</td>
</tr>
<tr>
<td>464</td>
<td>Latin American Environmental History</td>
</tr>
<tr>
<td>465</td>
<td>Seeing Latin America</td>
</tr>
<tr>
<td>466</td>
<td>Selected Topics in Latin American History</td>
</tr>
</tbody>
</table>

### MODERN EUROPEAN

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>304</td>
<td>The Holocaust</td>
</tr>
<tr>
<td>330</td>
<td>Early Modern Europe</td>
</tr>
<tr>
<td>331</td>
<td>History of Modern Europe, 1789 - Present</td>
</tr>
<tr>
<td>332</td>
<td>The Age of the Renaissance</td>
</tr>
<tr>
<td>333</td>
<td>Reformation Europe</td>
</tr>
<tr>
<td>334</td>
<td>Early Modern France, 1589-1789</td>
</tr>
<tr>
<td>336</td>
<td>The French Revolution and Napoleon</td>
</tr>
<tr>
<td>337</td>
<td>Europe in the Nineteenth Century</td>
</tr>
<tr>
<td>338</td>
<td>Modern European Women's History</td>
</tr>
<tr>
<td>339</td>
<td>Europe, 1890-1945</td>
</tr>
<tr>
<td>340</td>
<td>Europe Since 1945</td>
</tr>
<tr>
<td>341A</td>
<td>Foundations of Russia</td>
</tr>
<tr>
<td>341B</td>
<td>Modern Russia</td>
</tr>
<tr>
<td>343</td>
<td>Modern Eastern Europe</td>
</tr>
<tr>
<td>353</td>
<td>Tudor and Stuart England</td>
</tr>
<tr>
<td>356</td>
<td>Georgian and Victorian Britain</td>
</tr>
<tr>
<td>357</td>
<td>Recent Britain</td>
</tr>
<tr>
<td>400</td>
<td>History of Western Scientific Thought</td>
</tr>
<tr>
<td>437</td>
<td>History of Germany 1871 to Present</td>
</tr>
<tr>
<td>450/550</td>
<td>Deviance and the Social Body in Modern Europe</td>
</tr>
<tr>
<td>483</td>
<td>Women in Eighteenth-Century England and America</td>
</tr>
</tbody>
</table>

### UNITED STATES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>370</td>
<td>Chicano History</td>
</tr>
<tr>
<td>372</td>
<td>United States: Colonial Period</td>
</tr>
<tr>
<td>373</td>
<td>United States: Age of Revolution</td>
</tr>
<tr>
<td>375</td>
<td>The United States Emerges as a Nation</td>
</tr>
<tr>
<td>376</td>
<td>United States: Civil War and Reconstruction</td>
</tr>
<tr>
<td>378</td>
<td>United States History: 1877-1920</td>
</tr>
<tr>
<td>379</td>
<td>United States: Twenties, Depression, and World War II</td>
</tr>
<tr>
<td>380A</td>
<td>The Unites States in the Liberal Era 1945-1968</td>
</tr>
<tr>
<td>380B</td>
<td>The Unites States Since 1968</td>
</tr>
<tr>
<td>451</td>
<td>The United States in the World</td>
</tr>
<tr>
<td>452</td>
<td>The United States at War</td>
</tr>
<tr>
<td>468/568</td>
<td>Public Art, Monuments and Memory</td>
</tr>
<tr>
<td>470</td>
<td>American Jewish History</td>
</tr>
<tr>
<td>471</td>
<td>The American West</td>
</tr>
<tr>
<td>472</td>
<td>History of the South</td>
</tr>
<tr>
<td>473</td>
<td>California History</td>
</tr>
<tr>
<td>474</td>
<td>The History and Culture of American Cities</td>
</tr>
<tr>
<td>476</td>
<td>The History of Social Activism</td>
</tr>
<tr>
<td>477A/577A</td>
<td>American Cultural History</td>
</tr>
<tr>
<td>477B/577B</td>
<td>American Cultural History</td>
</tr>
<tr>
<td>478</td>
<td>Foreign Relations of the U.S.</td>
</tr>
<tr>
<td>479</td>
<td>U.S. Constitution: Origins and Early Development</td>
</tr>
<tr>
<td>480</td>
<td>Law and Fundamental Rights in American History</td>
</tr>
<tr>
<td>482</td>
<td>Recent American Environmental History</td>
</tr>
<tr>
<td>484</td>
<td>Religion in American History</td>
</tr>
<tr>
<td>485A</td>
<td>History of Women in the U.S. Early Period</td>
</tr>
<tr>
<td>485B</td>
<td>History of Women in the U.S. Since 1850</td>
</tr>
<tr>
<td>486</td>
<td>History of Afro-Americans in the United States</td>
</tr>
<tr>
<td>489</td>
<td>Selected Topics in Legal History of the United States</td>
</tr>
<tr>
<td>496</td>
<td>Selected Topics in U.S. History</td>
</tr>
</tbody>
</table>

### WORLD HISTORY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>345</td>
<td>Comparative Genocide</td>
</tr>
<tr>
<td>349</td>
<td>The History of Food</td>
</tr>
<tr>
<td>395</td>
<td>Gender, Sexuality and Desire in World History</td>
</tr>
<tr>
<td>396</td>
<td>Contemporary World History</td>
</tr>
<tr>
<td>435</td>
<td>History of the Francophone World</td>
</tr>
<tr>
<td>440/540</td>
<td>The Silk Roads</td>
</tr>
<tr>
<td>441/541</td>
<td>Mediterranean World</td>
</tr>
<tr>
<td>442/542</td>
<td>The Indian Ocean in World History</td>
</tr>
<tr>
<td>443/543</td>
<td>The Early Modern Atlantic World</td>
</tr>
<tr>
<td>444/544</td>
<td>Pacific Ocean in World History</td>
</tr>
<tr>
<td>451</td>
<td>The United States in the World</td>
</tr>
<tr>
<td>492/592</td>
<td>Proseminar in World History</td>
</tr>
</tbody>
</table>

### ORAL HISTORY PROGRAM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>402</td>
<td>Oral History Methods</td>
</tr>
<tr>
<td>498O</td>
<td>Directed Studies in Oral History</td>
</tr>
</tbody>
</table>

### Courses (HIST)

**NOTE:** General Education Category A must be completed prior to taking any upper-division course except upper-division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

### UPPER DIVISION

**300. The United States Past and Present (3)**

Prerequisite: GE Foundation requirements.

Upper-division survey, may not be taken for credit in the United States field. For upper-division transfer students in lieu of HIST 172 and 173.
301. Methodology of History (4)
Prerequisite: History majors only.
Introduction to historiography and methodological issues, skills and competencies exercises, research methods, research presentations, and peer review. Creation of student portfolio used in remaining upper-division courses in major and assessed in HIST 499.
Letter grade only (A-F).

302. Theory and History (4)
Prerequisite: HIST 301. Required of all History majors. Must be taken in the semester immediately following successful completion of HIST 301.
Introduction to history of historical profession, conceptual categories of historical inquiry, the ways theory shapes historical research and writing. Focuses on case studies, significant historical works, major schools of historical interpretation and recent historiographic trends.
Letter grade only (A-F). May be used to satisfy the GWAR.

303. Rebels and Renegades (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Global exploration of historical actors in "long twentieth century" who struggled against a normative framework. Class will explore those who sought progressive change and those who worked to maintain social and political status quo. Music, film, and art used extensively.

304. The Holocaust (3)
Examines the destruction of European Jews by Nazi Germany during the Second World War. Students will trace the roots of antisemitism in European history, the origins of Hitler's anti-Jewish assault, and the process from ghettoization to extermination.

305: Digital Methods in History (4)
Prerequisite: G.E. Foundation, upper-division status, HIST 301, or consent of undergraduate/graduate advisor.
This course focuses on the process, philosophy, and creation of digital history projects, using a variety of research, collection, and digital presentation methods, networked communities, bibliographic and archival tools, video, animation, and open access software.

308. Law and Civilization (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Exploration of law as an intellectual effort to define, direct, and administer human experience. Examination of theories of knowledge, language, meaning, mental processes, social organization, personal responsibility and freedom underlying legal analysis and decision-making in courts as well as in administrative/ bureaucratric settings.

309. Men and Masculinity (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Exploration of male roles from an interdisciplinary perspective focusing on men as workers, friends, lovers, and fathers. Consideration of the choices available to men under the impact of tradition, feminism, and a changing job market. Gender-oriented social and political movements.
Letter grade only (A-F).

310. The Greek World (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examines major events and ideas in society and culture of ancient Greece. Emphasis on literature, the arts, and history. Topics include Minoan civilization, Homer and the Trojan War, mytholgy and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponnesian War, and Hellenistic culture.
Same course as CLSC 310. Not open for credit to students with credit in CLSC 310.

312. Roman World (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examines major events and ideas in the society and culture of ancient Rome. Emphasis on literature, the arts, and history. Topics include genesis and growth of the Roman world, transition from Republic to Empire, imperial maturity, decay and decline, and the contributions of the Romans to the modern world.
Same course as CLSC 312. Not open for credit to students with credit in CLSC 312. Course fee may be required.

313. Ancient Greece (3)
Prerequisite: GE Foundation requirements.
History of the Greeks and the Greek world from the earliest times to the Roman conquest.

314. Roman History (3)
Prerequisite: GE Foundation requirements.
History of Rome and the Roman world from the Eighth Century B.C. to the Fifth Century A.D.

316. Early Middle Ages (3)
History of Western Civilization from the fall of the Roman Empire in the West to the Crusades. Germanization of the West, evolution of Christian institutions, Slavic expansion, Byzantinization of the Eastern Empire, Islamic civilization, Carolingian age, feudal and manorial institutions.

317. High Middle Ages (3)
History of Western Civilization from the Crusades to the end of the Middle Ages. Revival of trade, growth of towns and of capitalism, origins of modern political institutions, and medieval learning and art.

318. Byzantine Empire (3)
History of the Byzantine Empire from the 4th century AD to Constantiople's fall in 1453; the cultural heritage of the Roman Empire in the eastern Mediterranean; religious controversies and development of eastern Christianity; relations with Islam and medieval Europe.

319. Women in the Ancient and Medieval West (3)
Prerequisite: ENGL 100 or GE Composition (Area A1).
Examines roles and experiences of women in Western Europe from prehistory to the sixteenth century. Themes may include: construction of gender roles, relation between symbols and reality, interaction of private/public life, access to power/opportunity; the possibility of a "women's culture."

320. Middle East and Central Asia (3)
Prerequisite: Upper division standing.
Explores historical roots of contemporary Middle East and Central Asia from Late Antiquity to present day, with a special emphasis on the early modern and modern period within a global context.
330. Early Modern Europe (3)
Examines the multiple political and cultural reinventions of Europe between the Italian Renaissance and French Revolution. Studies the transformation of Europe as a society based around the Mediterranean to one defined by its relationship to the Atlantic world and overseas empires.

331. History of Modern Europe, 1789 – Present (3)
Prerequisite: GE Foundation requirements.
Introduces the social, political, cultural, and economic changes that have transformed European societies from the French Revolution to the present.
Letter grade only (A-F).

332. The Age of the Renaissance (3)
Examines remarkable transformation of Europe during the Renaissance period (1350-1550), including themes of humanism and artistic and literary developments; humanism and politics; religion in the "Age of Reason." Particular emphasis on relationship between power and culture in Italian civilization.
Course fee may be required.

333. Reformation Europe (3)
Examination and analysis of the "long 16th century," from the beginning of the Italian Wars (1494) to the Peace of Westphalia (1648). Emphasis on economic, institutional, intellectual and religious crises, and on their resolutions in the post-Reformation period.

334. Early Modern France, 1589-1789 (3)
Spanning French history from the advent of the Bourbon monarchy until its demise with the French Revolution. Exposes students to the political, social, economic, and cultural developments that attended domestic and international expansion of the French state.

335. The French Revolution and Napoleon (3)
End of the Old Regime and the French Revolution. Decline of the feudal monarchy, failure of enlightened despotism, the rise of revolutionary thought, French Revolution, and Napoleonic imperialism.

336. Europe in the Nineteenth Century (3)
Prerequisite: GE Foundation requirements.
Comprising with Napoléon's empire and concluding with the fin-de-siècle, examines industrialization and its repercussions; popular protest and revolution; nationalism; class consciousness; feminism; imperialism; and emergent ideologies (conservatism, liberalism, socialism; communism).

337. Modern European Women's History (3)
Investigates how European history has impacted on women, and how women and women's issues have shaped historical events. Issues covered are: industrialization, the family, wars and revolutions, protest and revolution; nationalism; class consciousness; feminism; and social movements. Course fee may be required.

338. Tradition and Crisis: The Jews of Modern Europe (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Explores the history of modern European Jewry, from the breakdown of traditional Jewish society to the efforts to create new national, religious, and cultural frameworks for Jewish identity.

339. Modern Eastern Europe (3)
Prerequisite: GE Foundation or consent of instructor.
Explores modern Eastern Europe from the emergence of nation states, to nationalism, world wars, fascism, Communism, conformity, dissent, and revolution. We will explore the role of Eastern Europe as a place and as an idea in modern Europe.

340. Europe Since 1945 (3)
Examines the political, social, economic, and cultural history of Europe since the end of World War II. Themes include post-war recovery, the Cold War, decolonization, the fall of communism, the transformation of Central Europe, and the European Union.

341A. Foundations of Russia (3)
Prerequisite: GE Foundation requirements.
Evolution of the state structure, diverse cultural patterns, and social structures associated with ancient Kiev Russia: rise of Moscow, origins of autocracy and serfdom; westernization and modernization as problems during the imperial period to 1801. Particular emphasis on social history.

341B. Modern Russia (3)
Prerequisite: GE Foundation requirements.
Interaction with the West from 1801: era of great reforms and revolutionary movements; downfall of Imperial Russia; establishment of the Soviet regime; chief political, social, economic and cultural developments in the Soviet era; role of the Soviet Union in world affairs.

342. The Age of the Renaissance (3)
Examines remarkable transformation of Europe during the Renaissance period (1350-1550), including themes of humanism and artistic and literary developments; humanism and politics; religion in the "Age of Reason." Particular emphasis on relationship between power and culture in Italian civilization.
Course fee may be required.

343. Modern European Women's History (3)
Investigates how European history has impacted on women, and how women and women's issues have shaped historical events. Issues covered are: industrialization, the family, wars and revolutions, protest and revolution; nationalism; class consciousness; feminism; and social movements. Course fee may be required.

344. Comparative Genocide (3)
Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Explores the modern phenomenon of mass killings of targeted populations in order to achieve a particular demographic, political, or cultural goal. Examines a series of case studies - including the Armenian Genocide, the Holocaust, Cambodia, and Rwanda - to understand not only how and why genocides occur, but also to look at the possibilities of preventative action.

345. The History of Food (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Religious and secular role of food; connections to identity; significance of securing reliable food sources as central to political, economic, and military agendas; and the significance of food and cultural development throughout history. Course fee may be required.

350. Medieval England (3)
Analysis of English political institutions, society, religion and economy in the Anglo-Saxon, Norman, Plantagenet, and late medieval eras.

351. The History of Food (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Religious and secular role of food; connections to identity; significance of securing reliable food sources as central to political, economic, and military agendas; and the significance of food and cultural development throughout history. Course fee may be required.

352. Tudor and Stuart England (3)
Social, cultural, religious, political, and dynastic history of England from 1485 to 1714. Renaissance and Reformation; Crown and Parliament; civil war and revolution; the pre-industrial economy; relations with Scotland, Ireland, Europe, and America.

353. Georgian and Victorian Britain (3)
Social, cultural, religious, political, and constitutional history of Britain from 1714 to 1901. Changes in agriculture, commerce, industry, and population; Parliamentary democracy; Irish problems; relations with America, India, Europe, and the world.
357. Recent Britain (3)
Social, cultural, economic, and political history of 20th century Britain. Governments and people; labor, party politics, and the welfare state; two world wars; problems with Ireland and Europe; the end of Empire; race relations; mass media and popular culture; contemporary developments.

362. Colonial Latin America (3)
Prerequisite: GE Foundation requirements.
Iberian preparation for overseas expansion, discovery and conquest in America, evolution of colonial institutions, dynamic 18th century developments, wars of independence.

364. Latin American Nations (3)
Prerequisite: GE Foundation requirements.
Political, economic, social and intellectual evolution of Latin America in the 19th and 20th Centuries.

370. Chicano History (3)
Prerequisite: GE Foundation requirements.
Chicanos in the settlement and development of the Southwest and in contemporary U.S. society; Chicano experience as a U.S. minority group; emerging civil rights movement of La Raza.
Letter grade only (A-F). Same course as CHLS 300. Not open for credit to students with credit in CHLS 300.

372. United States: Colonial Period (3)
Discovery and settlement of the new world; European institutions in a new environment; development of colonial government, economy and social institutions; European dynastic rivalry and colonial America.

373. United States: Age of Revolution (3)
Clash between British attempts to control and tax the colonies and colonial distaste for both; growth of an independent spirit; the American Revolution; problems of the new nation; the constitution.

375. The United States Emerges as a Nation (3)
An analysis of the political, economic, social, and intellectual forces from the adoption of the constitution through the 1840s.

376. United States: Civil War and Reconstruction (3)
Sectional rivalry, manifest destiny, mid-century divisive forces, Civil War and reconstruction.

378. United States History: 1877-1920 (3)
Development of the U.S. as an urban, industrial, multicultural society; progressive reform movements at the city, state, and national level; rise of U.S. as a world power; WWI.

379. United States History: 1877-1920 (3)
The conflict-ridden 1920s; the Depression years, and the beginnings of welfare democracy; the United States in World War II.

380A. The United States in the Liberal Era 1945-1968 (3)
The political, social, cultural, and economic history of the United States between World War II and the late 1960s, an era when American involvement in the Cold War helped both sustain and eventually undermine the liberal anti-communist order.
Not open to students with credit in HIST 380.

380B. The United States Since 1968 (3)
Explores the Vietnam War, deindustrialization, suburbanization, consumerism, conservatism, the "new" Cold War, globalization, and the "war on terror." Uses music, film, fiction, and contemporary historical scholarship to address political, economic, and social issues; examines the connections between politics and culture.

382A. Imperial China (3)
Prerequisites: GE Foundation requirements; upper-division standing.
Introduction to Chinese civilization from prehistory to modern times stressing foundations of Chinese philosophy and material culture, and the causation of Chinese problems: production, reproduction, and population.

382B. Modern China (3)
Prerequisite: GE Foundation requirements.
Not open for credit to students with credit in HIST 482B.

383A. Japan to 1850 (3)
Prerequisite: GE Foundation requirements.
Japan from prehistory to the nineteenth century; emphasis on social and cultural developments, the evolution of political institutions, and the development of early modern society.

383B. Modern Japan (3)
Prerequisite: GE Foundation requirements.
Japan from 1850 to 1945; collapse of the Tokugawa bakufu and rise of the Meiji state; industrialization, social change, and protest; “Taisho democracy” and the Pacific War.

384. Popular Culture and History in Contemporary Japan (3)
Japan since 1945; impact of Hiroshima and Nagasaki; American occupation of Japan; Japan’s “economic miracle,” social change and social criticism in literature and film; Japan’s role in the contemporary world; conflict with the U.S.

385. India and South Asia (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
An interdisciplinary examination of the Indian subcontinent and the South Asian region from its historic roots through the founding and consolidation of the Great Mughal empire, to the beginnings of Western imperialism and the establishment of the British Raj, ending with nationalism and the course of events in post-Independence India, Pakistan and Bangladesh.

386. History of Modern Southeast Asia: Colonial Era to the Vietnam War (3)
Survey of political and cultural history of modern Southeast Asia from 1800: Expansion of European influence, growth of nationalism and process of decolonization, and the post-WWII configuration of the area. Both mainland and insular Southeast Asia will be surveyed.

388. Contemporary China (3)
China from 1949 to the present. The political, economic and cultural factors that shaped its continuity and change and the impact of its transformation on Greater China, including Hong Kong and Taiwan.

391. The Making of Modern Africa, 1800-1939 (3)
Survey of sub-Saharan Africa from the early 19th through the mid-20th centuries. Examines the European conquest and the entrenchment of colonialism. Emphasis will be on how Africans perceived these processes, how they adjusted to them, and the continuing relevance of these experiences today.

392. Contemporary Africa, 1940-Present (3)
Surveys history of African continent during transition from colonialism to national independence and post-colonialism. The current political, economic, social and intellectual trends of Africa will be considered in historical context. African actions and perspectives will be prioritized.
393. Jews of the Modern Middle East (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Explores history, culture, and transformations of important Jewish communities in Middle East. Examines effects of modernization and colonialism on these disparate communities, including the Jewish colonization of other Jews and impact of exclusivist nationalisms on Jewish identities.

394. Middle Eastern Women (3)
Prerequisites: Upper division standing.
Explores a wide range of roles played by Middle Eastern women throughout history, seek to understand their multi-faceted thoughts and activities, and discuss the most important issues related to women and gender in Middle Eastern history.
Not open for credit to students with credit in W/ST 394 or WGSS 394.

395. Gender, Sexuality and Desire in World History (3)
Prerequisite: Upper-division status
An introductory survey of the colonial and post-colonial world history regarding human gender, sexuality and desire. It examines the European colonial era and the twentieth century constructions of sexual identities in conjunction with class, race, ethnicity, colonialism, and nationalism.
Letter grade only (A-F).

396. Contemporary World History (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
World historical approach to the study of the twentieth century. Themes include: the changing global economy and environment; the advance and retreat of empires; colonialism and post-colonialism; contending ideologies; the intensification of globalization at the end of the century.

400. History of Western Scientific Thought (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Introduction to history of science for scientists and non-scientists. Evolution of scientists' views of means and ends of their activities; ways science is affected by and affects contemporary cultures.

401. History for Secondary Social Science Teachers (4)
Prerequisites: completed a majority of all coursework in the Social Science Subject Matter Program. Capstone course for students in Social Science Subject Matter Program.
Examination of World and American history to promote global perspective and deeper knowledge of historical content within California History-Social Science Framework and Standards, historiography and historical thinking, methodology related to teaching and learning history. Emphasis on imbedding interdisciplinary approaches from social sciences in teaching and learning of history.
A grade of "B" or better is required for advancement to student teaching. Letter grade only (A-F).

402. Oral History Methods (1-3)
Through a series of workshops and through field experiences, skills in oral history will be developed which will enable students to use oral history either for their own personal use in family history or for class projects.
Not open for credit to students with credit in C/LA 485.

406. Women, Gender, and Sexuality in Asia (3)
Prerequisite: Upper division standing.
Exploration of gender history in Asia from prehistory to the present. Major themes include gender traditions, women's contributions to social, cultural and political change, and the complex relationship between feminism and nationalism in the modern period. Same course as WGSS 406.
Not open for credit to students with credit in HIST 406A, A/ST 406A, WGSS 406A.

407. Japan and the United States in the 20th Century (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Examination of relationships between Japan and the United States, emphasizing cultural, economic, and political conflict and cooperation.

412. Migration and Ethnicity in Modern China (3)
Prerequisite: Upper-division status. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
The global story of Chinese emigration and internal migration, a process that is integral to the history of state and society in China since the seventeenth century. Chinese settlers faced diverse challenges and opportunities in the colonial and postcolonial states of Southeast Asia, in the settler societies of the Americas and Oceania, and in Europe. It examines major factors that have shaped Chinese emigration/migration in the modern period as well as its impact on world history.

417. Diversity and Encounters in the Middle East (3)
Prerequisite: Completion of GE Foundation, Upper-division status or consent of undergraduate/graduate advisor.
The course examines diversity and encounters in early modern and modern Middle Eastern history within a global context with an emphasis on the historical relationships among diverse populations, states, and societies.

418. Central Asia and Afghanistan, Twentieth Century (3)
Prerequisite: Upper-division standing.
Introductory survey of history of change and continuity in Afghanistan and Turkestan (currently Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) during the Twentieth Century.

432./532. Change and Continuity in the Modern Middle East (3)
Prerequisite: Completion of GE Foundation, Upper-division status or consent of undergraduate/graduate advisor.
The course covers most important themes and episodes from the 19th century transformations to the 21st Century, including the Arab Uprisings, within their global context. Emphasizes modernity, colonialism, imperialism, decolonization, reform, revolution and other forms of resistance, women’s rights, state building, nationalism, and Islamism.

434. Medieval Spain: Conflict and Coexistence (3)
Prerequisites: Upper-division standing; students must have scored 11 or higher on the GWAR Placement Examination or approval of advisor.
A research seminar on the history of medieval Spain, with emphasis on conflict and coexistence between Muslim, Christian, and Jewish cultures. Themes include: the Islamic invasions and the culture of al-Andalus; Jews and Muslims in Christian Iberia; Spain in Mediterranean and Atlantic contexts; the Inquisition.

435. History of the Francophone World (3)
Prerequisites: HIST 132, HIST 212, or approval of advisor.
Commencing with a study of the history of French language, explores methods by which France expanded its global presence. Themes to be covered include French colonialism, resistance to French overseas expansion and issues relative to race and identity.
437. History of Germany 1871 to Present (3)
History of Germany from unification: the First World War, the Weimar Republic, the National Socialist Reich, and the post-war recovery.

440./540. The Silk Roads (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Examines the Silk Roads from the first century BCE to the end of the fifteenth century CE from a world historical perspective. Emphasis is on economic integration, cultural diffusion, exchange and syncretism, and comparative demographic and political development.

441./541. Mediterranean World (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor
Focuses on pre-modern Mediterranean world up to geographical shift of political power and wealth to the Atlantic world with an emphasis on the exchange and interaction of peoples and ideas. Letter grade only (A-F).

442./542. The Indian Ocean in World History (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Examines the Indian Ocean from 600 CE to the nineteenth century from a world historical perspective. Emphasis is on how the Indian Ocean connected diverse regions, societies and polities, and facilitated the circulation and modification of commodities, cultural practices and ideas.

443./543. The Early Modern Atlantic World (3)
Prerequisite: HIST 211 or HIST 132 or consent of undergraduate/graduate advisor
Examines early modern Atlantic from a world historical perspective emphasis on cultural encounter/exchange, environmental interaction, and comparative colonial development from early Iberian maritime expansion through Atlantic revolutions and wars of independence. Letter grade only (A-F).

444./544. The Pacific Ocean in World History (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor
Examines the Pacific World from the pre-modern period to the twentieth century from a world historical perspective. Emphasis is on how the Pacific Ocean connected diverse regions, societies and polities, and facilitated the circulation and modification of commodities, cultural practices and ideas. Letter grade only (A-F).

451. The United States in the World (3)
Prerequisites: Upper-division standing.
A survey of American history from the colonial period to the present day framed within a world history context, focusing on comparisons and connections between national and international developments.

452. United States at War (3)
Prerequisites: GE Foundation requirements. Explores the United States experience of modern warfare. Examines discourse about the morality of war, the objectives of conflict, and the consequences of global warfare. Incorporates the study of the home front and domestic images of war.
Not open to students with credit in HIST 377.

459. Religion in Colonial Latin America (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
Explores history of religion in Latin America from the pre-Hispanic period through Independence, with a focus on the social, cultural, and political implications of European, Indigenous and African religious traditions.

460./560. Slavery in Latin America (3)
GE Foundation requirements, one or more Exploration courses and upper division standing.
Systems of forced labor in Latin America since European arrival; the slave trade; slavery in economic context; resistance and negotiation; plantations and urban slavery; slaves into the independence wars; manumission and slavery abolition; Afro-latino Americans post slavery.

462. Mexico (3)
Spanish conquest of Indian Mexico; settlement and exploration; colonial life and institutions; the achievement of independence from Spain; reform, foreign intervention, dictatorship in the 19th century; the Revolution of 1910 and after; contemporary Mexico.

463. Power and Violence in Latin America and the Caribbean (3)
Prerequisites: I/ST 200 or instructor consent. “Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).”
This course examines the history and cultural politics of dictatorship, revolution, and violence in Latin America and the Caribbean. Uses literature, film, history, and political theory to examine how power and violence intersect with race, ethnicity, gender, and nationalism.
Same course as I/ST 476. Not open for credit to students with credit in I/ST 476.
Letter grade only (A-F).

464. Latin American Environmental History (3)
Prerequisite: Upper-division standing. GE Foundation requirements, 3 units Latin American survey (HIST 161 or HIST 364 or equivalent) or consent of instructor.
Explores the environmental history of Latin America from an interdisciplinary perspective, with a focus on the production of nature and society and the transformation of the relationship between human societies and the natural world from pre-European contact to the 21st century.

465. Seeing Latin America: Visual Culture and History in the Latin American World (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
History of Latin America from Conquest through today using visual medium as historical documentation; understanding cultural, social, and political change through painting, fashion, architecture, street art, archaeology, murals, film; interdisciplinary art history methods tailored to historical analysis.
Letter grade only (A-F).

466. Selected Topics in Latin American History (3)
Topics will vary from semester to semester.
May be repeated to a maximum of 9 units with different topics. Topics announced in Schedule of Classes.

468./568. Public Art, Monuments, and Memory (3)
Prerequisite: G.E. Foundation requirements. Upper-division standing
Historical examination of the role of public art and monuments in shaping civic identity and public memory in the United States. Traces the creative ways that artists and citizens alike have challenged official representations of American history and culture.
469. Ethnic Groups in Urban America (3)
Prerequisite: Upper division standing
An examination of the origin, migration, settlement and assimilation problems various ethnic groups in major American cities since the late 19th century. Emphasis on the economic, social, political and educational problems encountered by different groups in adjusting to urban life.
GRD C/NC, 3 hours lecture activity

470. American Jewish History (3)
Chronological and thematic approach to American Jewish history. Covers Sephardic, German, Eastern European, and recent Jewish immigration. Emphasis on experiences immigrants brought with them. Critical examination of assimilation, transformation of traditions, women, anti-Semitism, development of denominations, mobility, leadership of Diaspora.
Letter grade only (A-F).

471. The American West (3)
Examination of the impact of American expansion on the West: Euro-American exploration and migration, ethnic conflict and conquest, gender and family roles on the frontier, environmental changes in the West, development of economic institutions, and urbanization of the region.

472. History of the South (3)
Explores development of the South, including examination of regional culture, traditions, and social crisis in the Antebellum period; conflict and social change; economic transformations; role of women in the region; and the interaction of racial groups in the Modern South.

473. California History (3)
Survey of California from the 1500s to the present. Emphasis on migration, cultural diversity, and significant social, political, and economic developments.

474. The History and Culture of American Cities (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary exploration of the history and cultural life of American cities from the nineteenth century to the present.

476. The History of Social Activism (3)
Prerequisite: GE Category A must be completed prior to taking any upper-division course.
Social movements are collective efforts to change society. At many times in history they have had dramatic consequences and they continue to be a focus of controversy, conflict, and change today.

477A/.577A. American Cultural History (3)
Development of American way of life treated in terms of values, behavior and institution, themes of individualism, community, ethnic diversity and social reform.

477B/.577B. American Cultural History (3)
Development of American way of life treated in terms of values, behavior and institutions, themes of individualism, community, ethnic diversity and social reform.

478. Foreign Relations of the U.S. (3)
Incorporates a global perspective and considers the influence of such issues as domestic politics, bureaucratic rivalry and decision-making, economics, ideology, race, and the role of special interest groups in the making of foreign policy.
Same course as I/ST 478. Not open for credit to students with credit in I/ST 478.

479. U.S. Constitution: Origins and Early Development (3)
European sources of constitutional thought, colonial background, impact of the American Revolution, the framing period and the rise of a judicial approach to constitutional interpretation. Emphasis throughout: the evolution of constitutionalism as a basic principle in American thought and institutions.

480. Law and Fundamental Rights in American History (3)
Selected variable topics on civil liberties issues addressing the historical development of constitutional guarantees in the areas of freedom of expression, privacy, church and state, due process, and equal protection.

482. Recent American Environmental History (3)
An examination of the impact of industrialization and urban growth on the American environment, the emergence of ecological consciousness and green politics, and the creation of the idea of Nature in American culture in the U.S. since the 1860s.

483. Women in Eighteenth-Century England and America (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing.
Representations and realities of women's lives, 1668-1800, using critical methodology of history and literature; analysis of literary and historical texts to explore law and economics; religion; education and culture; marriage, sex, and health; politics and revolution.

484. Religion in American History (3)
Prerequisite: GE Foundation requirements.
Explores American religion from European settlement to present. Focuses on interconnections between American religion, politics, and culture—including literature, film, music, moral crusades, and built environment. Examines how beliefs structured interactions between social groups.
Not open to students with credit in HIST 371.

485A. History of Women in the U.S. Early Period (3)
Prerequisite: GE Foundation requirements.
Survey of roles and activities of American women from colonial period to 1850, with focus on slavery, immigration, family, economy, law, and politics.
Only 3 units of 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as WGSS 485A. Not open for credit to students with credit in W/ST 485A or WGSS 485A.

485B. History of Women in the U.S. Since 1850 (3)
Prerequisite: GE Foundation requirements.
Examines the changing roles and status of women's economic, political, and social roles. Explores the suffrage movement, the role played by women in WW II and the changes brought forth during the "second wave" of feminism.
Only 3 units of HIST 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as WGSS 485B. Not open for credit to students with credit in W/ST 485B or WGSS 485B.

486. History of Afro-Americans in the United States (3)
Examines the roots and culture of Afro-Americans from African origins to the present. We will explore the transformation from slavery to freedom; segregation and racial conflict; emigration patterns, societal interactions, and the experiences of women.

489. Selected Topics in Legal History of the United States (3)
Case studies in American law from colonial times to the present: English common law heritage, puritan and frontier influences, the legal profession, judicial traditions, formative stages in criminal law, torts and contracts, and modern trends in legal thought.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.
490. Selected Topics in History (1-3)
Topics of current interest in history selected for intensive development.
May be repeated to a maximum of 6 units with different topics in different semesters, but no more than 3 units may be used to satisfy the requirements for the major. Topics announced in the Schedule of Classes.

491. Modern and Contemporary Africa (3)
Conquest of Africa by European states, contrasting colonial systems as they evolved, anti-colonial movements and progress towards self-government or independence, problems of economic and political development, and race tensions in areas of white settlement.

492./592. Proseminar in World History (3)
Prerequisite: Consent of the instructor.
Discussion and analysis of recently published historical works and materials from a world history perspective.
May be repeated to a maximum of 6 units.

493. Practicum in History (1-3)
Prerequisites: Consent of instructor and department chair.
Field work in History, supplemented by reading and tutorials under direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by supervising faculty member.
May be repeated to a maximum of 6 units, but no more than 3 units may be applied to the major in History.

494. Selected Topics (3)
Prerequisites: HIST 301 and nine additional units of upper division History.
Seminar level course exploring a specific historical field or issue chosen by instructor; students expected to analyze and interpret primary and secondary sources in a paper presented to the class.
Part of core requirements for students declaring a major before summer 2001; students declaring a major after spring 2001 will be required to take HIST 499 as a core requirement, not 495.

495. Selected Topics in the United States History (3)
Variable topics in U.S. history from the 17th century to the present. Some background in U.S. history is strongly encouraged.
May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

496. Selected Topics in Asian History (3)
Prerequisite: Consent of instructor.
Selected topics in Asian History.
May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

498. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.
May be repeated to a maximum 6 units.

498H. Honors Research (3)
Research for and writing of a senior thesis under the direction of a departmental advisor.

498O. Directed Studies in Oral History (1-6)
Prerequisite: Consent of instructor.
Directed study on a research topic using the methodology of oral history.
May be repeated to a maximum of 6 units. Not open for credit to students with credit in C/LA 498

501. Historical Thinking and the Discipline of History (3)
Prerequisite: Students must be first-semester candidates in the M.A. program in history, candidates in the history B.A. honors program, or M.A. students from another department with consent of the instructor.
Introduces students to skills and dispositions required to succeed in M.A. program. Examines history of profession, professional dispositions of discipline, and key historical thinking skills including historiography, cause and consequence, evidence and interpretation, comparison, agency, and periodization.
A minimum “B” grade is required to continue in the graduate program. Letter grade only (A-F).

502. Historical Research and Writing (3)
Prerequisites: Graduate standing in History or M.A. student from another department with permission of the instructor.
Corequisite: HIST 501.
Introduces research, analytical, and writing skills necessary in History discipline and M.A. program. Focuses on development of skills pertaining to analysis of sources, use of theoretical and conceptual approaches, conduct of research, and presentation of oral reports and written work.
A minimum “B” grade is required to continue in the graduate program. Letter grade only (A-F).

510. Selected Topics in the Literature of History (3)
Reading and discussion of major works and intensive study of bibliography and bibliographical aids. Includes a comparative history component.
Letter grade only (A-F). May be repeated for a maximum of 6 units per field of concentration. Different instructors within a field required when repeated. Repeatable up to 12 units. Topics announced in the Schedule of Classes.

512. Migration and Ethnicity in Modern China (3)
Prerequisite: Graduate standing.
Examines Chinese emigration and internal migration since the seventeenth century, in Southeast Asia, the Americas and Oceania, and Europe. Explores factors that have shaped Chinese emigration and migration in the modern period, as well as impact on world history.
Letter grade only (A-F).
518. Central Asia and Afghanistan, Twentieth Century (3)
Prerequisite: Upper Division Standing.
Introductory survey of the history of change and continuity in Afghanistan and Turkistan (currently Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) during the Twentieth Century.
Letter grade only (A-F).

532/432. Change and Continuity in the Modern Middle East (3)
Prerequisite: Graduate standing.
The course covers most important themes and episodes from the 19th century transformations to the 21st Century, including the Arab Uprisings, within their global context. Emphasizes modernity, colonialism, imperialism, decolonization, reform, revolution and other forms of resistance, women’s rights, state building, nationalism, and Islamism.
Grading: Letter grade only (A-F)

540/440. The Silk Roads (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Examines the Silk Roads from the first century BCE to the end of the fifteenth century CE from a world historical perspective. Emphasis is on economic integration, cultural diffusion, exchange and syncretism, and comparative demographic and political development.

541. Mediterranean World (3)
Prerequisite: Graduate standing in History.
Focus on pre-modern Mediterranean world up to geographical shift of political power and wealth to the Atlantic world with an emphasis on the exchange and interaction of peoples and ideas.
Letter grade only (A-F).

542/442. The Indian Ocean in World History (3)
Prerequisite: Graduate Standing
Examines the Indian Ocean from 600 CE to the nineteenth century from a world historical perspective. Emphasis is on how the Indian Ocean connected diverse regions, societies and polities, and facilitated the circulation and modification of commodities, cultural practices and ideas.
Letter grade only (A-F).

543. The Early Modern Atlantic World (3)
Prerequisite: Graduate standing in History.
Examines early modern Atlantic from a world historical perspective with an emphasis on cultural encounter and exchange, environmental interaction, and comparative colonial development from early Iberian maritime expansion through the Atlantic revolutions and wars of independence.
Letter grade only (A-F).

544/444. The Pacific Ocean in World History (3)
Prerequisite: HIST 211 or HIST 131 or consent of undergraduate/graduate advisor.
Examines the Pacific World from the pre-modern period to the twentieth century from a world historical perspective. Emphasis is on how the Pacific Ocean connected diverse regions, societies and polities, and facilitated the circulation and modification of commodities, cultural practices and ideas.
Letter grade only (A-F).

560/460. Slavery in Latin America (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper division standing.
Systems of forced labor in Latin America since European arrival; the slave trade; slavery in economic context; resistance and negotiation; plantations and urban slavery; slaves in the independence wars; manumission and slavery abolition; Afro-latino Americans post slavery.

568/468. Public Art, Monuments, and Memory (3)
Prerequisite: GE Foundation requirements, Upper-division standing
Historical examination of the role of public art and monuments in shaping civic identity and public memory in the United States. Traces the creative ways that artists and citizens alike have challenged official representations of American history and culture.

577A/477A. American Cultural History (3)
Development of American way of life treated in terms of values, behavior and institutions, themes of individualism, community, ethnic diversity and social reform.
Letter grade only (A-F).

577B/477B. American Cultural History (3)
Development of American way of life treated in terms of values, behavior and institution, themes of individualism, community, ethnic diversity and social reform.
Letter grade only (A-F).

590. Selected Topics in Comparative History (3)
Prerequisite: Graduate standing in History.
Selected themes in history involving cross-cultural and comparative approaches.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

592/492. Proseminar in World History (3)
Prerequisite: Graduate standing in History.
Discussion and analysis of recently published historical works and materials from a world history perspective.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

595. Special Preparation (3)
Prerequisite: Graduate standing; consent of Graduate Advisor.
Special preparation for the M.A. examinations under faculty direction.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

605. Research in History Teaching, Learning, and Cognition (3)
Prerequisite: Graduate standing in History
Examines the extensive recent scholarship in history teaching, learning, and cognition, with an emphasis upon the significance and implementation of historical methodology and thinking in the classroom.
Letter grade only (A-F).

611. Seminars in Ancient and Medieval History (3)
Prerequisite: Graduate standing in History.
Selected topics in ancient or medieval history.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

631. Seminars in European History (including Britain and Russia) (3)
Prerequisite: Graduate standing in History.
Directed reading and research in the political, economic, social and cultural history of Europe.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

663. Seminar in Latin American History (3)
Directed reading and research in history, focusing on selected topics in Latin American history.
May be repeated for a maximum of six units in different semesters. Letter grade only (A-F).
673. Seminars in United States History (3)
Prerequisite: Graduate standing in History.
Topics in domestic or international affairs from colonial times to present.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

682. Seminars in Asian History (3)
Prerequisites: Six units of upper division Asian history or consent of instructor.
Selected topics in Asian history.
May be repeated to a maximum of 6 units in different semesters.
Letter grade only (A-F).

695. Directed Readings (1-3)
Prerequisites: Consent of instructor.
Readings on an individual basis.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Research on an individual basis.
Letter grade only (A-F).

698. Thesis (1-4)
Planning, preparation and completion of non-curricular work in history for the master’s degree.
HOSPITALITY MANAGEMENT

College of Health and Human Services
Department of Family and Consumer Sciences

Department Chair: Wendy Reiboldt
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Program Director: Lee Blecher
Baccalaureate Program Coordinator: Richard V. Tuveson
Graduate Coordinator: Virginia Gray
Administrative Support Coordinators: Mikal Lok, Marina Bendersky, Andrew Redmayne
Instructional Support Technician: Bonnie Rice

Career Possibilities
Restaurant Manager • Hotel Manager • Catering Director • Foodservice Manager in College, University or Corporate Setting • Manager in a Bed and Breakfast Facility • Healthcare Hospitality Director • School Foodservice Director • Club Manager • Manager in Senior Nutrition Programs, Stadiums or Amusement Parks • Food Purchaser or Broker. (For more information, see www.careers.csulb.edu.)

Undergraduate Programs

Bachelor of Science in Hospitality Management (120 units)
The program is accredited by the Accreditation Commission for Programs in Hospitality Administration. This program provides a broad-based foundation and includes hands-on practical experience. It prepares students for entry into a multi-ethnic and multi-cultural domestic and international job market.

In addition to general education requirements (48 units), complete a minimum of 40 units from the major department, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this university and it is accepted by this university.

Requirements
Take all of the following required courses:
- ACCT 201 Elementary Financial Accounting (3)
  Prerequisites: None.
- CAFF 321 Family and Consumer Resource Management (3)
  Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
- ECON 101 Principles of Microeconomics (3)
- FCS 299 Introduction to FCS (1)
  Prerequisites: None.
- FCS 499 Professionalism and Leadership in FCS (1)
  Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
  Not open for credit to students with credit in FCSE 299.
- HFHM 170 Introduction to Hospitality Management (3)
  Prerequisites: None.
- HFHM 173 Applied Foodservice Sanitation (1)
  Prerequisites: None.
- HFHM 176 Fundamentals of Food Preparation (3)
  Prerequisites: None.
- HFHM 179 Orientation to the Hospitality Management Major (1)
  Prerequisites: Major in Hospitality Management.
- HFHM 274 International Hospitality Development (3)
  Prerequisites: ENGL 100 or GE Composition (Area A1).
- HFHM 276 Food Production and Service in Hospitality Management (3)
  Prerequisites: HFHM 173, HFHM 176.
- HFHM 277 Cost Control in Hospitality Management (3)
  Prerequisites: HFHM 176.
- HFHM 370 Exploring a Sustainable Food System (3)
  Prerequisites: Completion of the GE Foundation and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
- HFHM 371 Human Resources in Hospitality Management (3)
  Prerequisites: HFHM 170 and upper division standing; or consent of instructor.
- HFHM 372 Hotel and Lodging Management (3)
  Prerequisites: HFHM 170.
- HFHM 373 Hotel and Restaurant Information Technology (3)
  Prerequisites: HFHM 170 or consent of instructor.
- HFHM 376 Hospitality Marketing and Service Management (3)
  Prerequisites: HFHM 170.
- HFHM 378 Legal Issues in Hospitality Management (3)
  Prerequisites: Upper division standing or consent of instructor.
- HFHM 379 Professional Integration into Hospitality Management (2)
  Prerequisites: HFHM 179, Hospitality Management Major.
- HFHM 471 Hotel & Lodging Property Management (3)
  Prerequisites: HFHM 372 or consent of instructor.
- HFHM 476 Hotel and Restaurant Financial Management (3)
  Prerequisites: ACCT 201 and HFHM 170.
HFHM 479 Leadership and Strategic Management in Hospitality (3)
Prerequisites: HFHM 371.

HFHM 492J Internship in Hospitality Management (3)
Prerequisites: Student must be a major or minor in Hospitality Management; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Hospitality Management; and HFHM 276 or 372, 379, and 800 hours of approved work experience, or consent of instructor. Each prerequisite course must be completed with a grade of "C" or better.

NUTR 132 Introductory Nutrition (3)
Prerequisites/Corequisites: One Foundation course.

Take 12 units from the following for enhanced depth of knowledge in the industry:
HFHM 374 Meeting Planning in Hotels and Restaurants (3)
Prerequisites: HFHM 170

HFHM 375 Food Production Systems II (3)
Prerequisites: HFHM 276.

HFHM 472 Advanced Hotel Administration (3)
Prerequisites: HFHM 372.

HFHM 473 Beverage Management (3)
Prerequisites: For Hospitality Management majors: HFHM 276, senior standing; Nutrition and Dietetics majors: HFHM 343, senior standing.

HFHM 477 Restaurant and Dining Management (3)
Prerequisites: HFHM 276

FCS 497 Directed Studies (1-3)
Prerequisites: Upper division standing, consent of instructor.

Not open for credit to students with credit in FCSE 497.

Each course on the student's program planner must be completed with a grade of a "C" or better. In addition, a course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in a course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with the approval of the student's faculty advisor.

HFHM 492J requires 800 hours of approved work experience as a prerequisite for this degree. Field study hours in HFHM 379 can be used toward meeting the 800 hours.

Minor in Hospitality Management

The 19-unit Minor in Hospitality Management is available to any non-Hospitality Management major.

Take all of the following:
HFHM 170 Intro to Hospitality Management (3)
Prerequisites: None.

HFHM 173 Applied Foodservice Sanitation (1)
Prerequisites: None.

Take 15 units selected from the following:
HFHM 176, HFHM 274, HFHM 276 or HFHM 343, HFHM 277, HFHM 371, HFHM 372, HFHM 373, HFHM 374, HFHM 375, HFHM 376, HFHM 378, HFHM 471, HFHM 472, HFHM 473, HFHM 476, HFHM 447 or HFHM 477, HFHM 479, and HFHM 492J.

Students are responsible to adhere to all prerequisites of courses as designated in the catalog. Certain combinations of classes could require additional units. Please see an advisor for help in making these decisions.

Minor in Event Planning Management

For requirements, see description in the Recreation and Leisure Studies section of this catalog.

Hospitality Management Courses (HFHM)

LOWER DIVISION

170. Introduction to Hospitality Management (3)
Introduction to the hospitality industry and historical overview of field. Careers in hospitality management defined. Explore relationship of careers to community and foodservice and hotel/lodging industry. Overview of organization and current forces shaping foodservice and hotel operations.
Not open for credit to students with credit in HFHM 270. (Lecture-discussion 3 hours)

173. Applied Foodservice Sanitation (1)
Principles of sanitation and safety; the causes and controls of food borne illnesses, sanitary practices with purchasing, receiving, storing and preparing food, principles HACCP, sanitary maintenance of kitchen, dining room and equipment, personal hygiene, and safety of the food handler.
Letter grade only (A-F). (Lecture-discussion 1 hour)

176. Fundamentals of Food Preparation (3)
Covers basic scientific principles related to various foods and food preparation methods from the perspective of the restaurant and foodservice industry. Fundamental skills and techniques used for handling and preparing foods to maintain quality and safety are covered.
Letter grade only (A-F). Course fee may be required. (Lecture-discussion 2 hours, laboratory 3 hours).

179. Orientation to the Hospitality Management Major (1)
Prerequisite: Major in Hospitality Management
Provides students with an orientation into the major emphasizing the identification of career goals and the activities and behaviors needed for successful degree completion and transition into the workforce. Resources available on campus are also included.
Letter grade only (A-F). (2 hours activity)

235. Principles of Food Preparation (3)
Application of scientific principles in the preparation of selected food products emphasis on physical and chemical properties of food; methods and techniques of food preparation; factors that contribute to quality of prepared foods.
Letter grade only (A-F). (Lecture-discussion 2 hours, Laboratory 3 hours) Course fee may be required.

274. International Hospitality Development (3)
Prerequisites: ENGL 100 or GE Composition (Area A1).
International hospitality foodservice and hotel management. Issues and problems in the hotel and restaurant industry from a global perspective. Dynamics of human interaction in a multi-ethnic and multi-cultural global job market.
(Discussion 3 hours)
275. Food Production Systems I (3)
Prerequisites: NUTR 132 and HFHM 235.
Factors which influence individual, family and quantity foodservice. Menu planning and food selection, preparation and service in relation to management of time, energy and money. Foodservice practices for regular meals and special occasions. Course fee may be required. (Lecture-discussion 2 hours, lab 3 hours)

276. Food Production and Service in Hospitality Management (3)
Prerequisites: HFHM 173, HFHM 176 or HFHM 235. Fundamentals of planning, organizing, preparing, and serving of meals as applicable to the hospitality industry. Preparations relative to provision of quality food and beverage services included. Letter grade only (A-F). Course fee may be required. (Lecture-discussion 2 hours, laboratory 3 hours)

277. Cost Control in Hospitality Management (3)
Prerequisites: HFHM 176.
Financial management of food, labor, supplies, and other operational costs; procedures for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; inventory and security management; computer applications; and analysis of financial reports. Letter grade only (A-F). Not open to students with credit in HFHM 474. (Lecture - discussion 3 hours)

UPPER DIVISION

343. Food Production Systems for Nutrition and Dietetics Professionals (3)
Prerequisites: HFHM 176 and NUTR 132. Explores components of food production systems including menu writing, standard recipe adjustments, purchasing, receiving, storage and inventory control, sanitation and safety, food production planning, and meal delivery and service. Letter grade only (A-F).

345. Foodservice Operations for Nutrition and Dietetics Professionals (2)
Prerequisites: HFHM 343, CA Food Handler’s card valid for at least one year. Students observe and experience quantity style food production and apply principles of menu planning, purchasing, costing, recipe development, service, and sanitation and safety. Facility design, equipment, and resource conservation are included. Letter grade only (A-F). (1 hour seminar and 3 hours lab) Course fee may be required.

370. Exploring a Sustainable Food System (3)
Prerequisites: Completion of the GE Foundation and upper division. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
An interdisciplinary service-learning writing intensive course that addresses sustainability in the food industry through the study of environmental science and environmental sociology. Letter grade only (A-F). (20 hours of service learning.)

371. Human Resources in Hospitality Management (3)
Prerequisites: HFHM 170 and upper division standing; or consent of instructor. Application of human resources management in the hospitality industries. Includes recruitment, selection, training and development, organizing a workforce, supervision, performance leadership, workplace safety, labor relations, and related legal issues. Letter grade only (A-F).

372. Hotel and Lodging Management (3)
Prerequisite: HFHM 170. Organization and management of hotel and lodging facilities. Covers functions of various operational departments and how they interrelate. Importance of assuring quality guest service emphasized. Fieldtrips may be required. (Lecture - discussion 3 hours)

373. Hotel and Restaurant Information Technology (3)
Prerequisites: HFHM 170 or consent of instructor. Management of information systems found in hotel & restaurant industry. Includes applications of technology and computer systems facilitating front office, sales and marketing management, restaurant management, customer service, and communications in hotel and restaurant operations. Letter grade only (A-F). (Lecture activity 3 hours)

374. Meeting Planning in Hotels and Restaurants (3)
Prerequisites: HFHM 170. Planning, organizing, and implementing meetings in the hotel and restaurant industry. Factors necessary to provide food, lodging, and facility services for meetings and special functions are included. Letter grade only (A-F). (Lecture/Discussion 3 hours)

375. Food Production Systems II (3)
Prerequisite: HFHM 276. Quantity food operations utilized providing production and operational experiences: menu planning, costing, standardizing recipes, serving, merchandising, sanitation and safety. Commercial and non-commercial settings are used. Letter grade only (A-F). (Lecture-discussion 2 hours, Lab 3 hours)

376. Hospitality Marketing and Service Management (3)
Prerequisites: HFHM 170. Application of marketing principles, methods and techniques to the hospitality service product. Components of customer service management, guest behavior, market research, promotion and marketing strategies are discussed. Letter grade only (A-F). Fieldtrips and off-campus activities required. (Lecture-activity 3 hours)

378. Legal Issues in Hospitality Management (3)
Prerequisite: Upper division standing or consent of instructor. Examine evolving laws of foodservice and lodging both historically and as they exist today. (Lecture discussion 3 hours)

379. Professional Integration Into Hospitality Management (2)
Prerequisites: HFHM 179, Hospitality Management Major. Provides students with an opportunity to integrate into the professional work environment through field experience, exposure to industry professionals, and participation in directed activities to enhance career development and success. Letter grade only (A-F). May be repeated to a maximum of 6 units. (Seminar 1-3 hours)

447. Foodservice Administration for Nutrition and Dietetics Professionals (3)
Prerequisites: HFHM 343. Explore principles of organization, administration, and leadership in commercial and non-commercial foodservice operations. Topics include organizational management, human resource management, productivity, marketing, financial management, and quality assurance as applied to the foodservice industry. Letter grade only (A-F).
471. Hotel and Lodging Property Management (3)
Prerequisites: HFHM 372 or consent of instructor.
Management principles and practices applied to maintenance of hotel and lodging facilities. Strategies for maintaining hotels to ensure customer safety and satisfaction are included.
Letter grade only (A-F). (Lecture activity 3 hour) Field trips required.

472. Advanced Hotel Administration (3)
Prerequisites: HFHM 372.
Principles of organization, administration, and leadership in hotel and lodging operations. Topics include organizational management, human resource management, productivity, marketing, financial management, and quality service management.
Letter grade only (A-F). (Lecture activity 3 hour) Field trips required.

473. Beverage Management (3)
Prerequisites: For Hospitality Management majors: HFHM 276, senior standing; Nutrition and Dietetics majors: HFHM 343, senior standing.
Overview of the beverage industry. Identification, use, and service of wines and other alcoholic and non-alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising, and bar management.
Field trips required. (Discussion 3 hours)

476. Hotel and Restaurant Financial Management (3)
Prerequisites: ACCT 201 and HFHM 170.
Managerial and financial analysis of numerical data and reports used for planning, controlling, and decision making in the hotel and restaurant industry. Topics include ratio analysis, internal control, sales, revenue and cost management, cash control, budgeting, and feasibility studies as applied to the hotel and restaurant operations.
Letter grade only (A-F). (Lecture Activity 3 hours).

477. Restaurant and Dining Management (3)
Prerequisite: HFHM 276
Explore organization and administration in commercial and non-commercial foodservice operations. Includes food purchasing, receiving, storage, inventory control, marketing, organizational management, human resource management, productivity, financial management, and quality management.
Letter grade only (A-F). Fieldtrips required. (Discussion 3 hours)

479. Leadership and Strategic Management in Hospitality (3)
Prerequisites: HFHM 371.
Explore principles of organization, administration, and leadership in the hospitality industry. Topics include leadership, organizational theory, strategic management, team building, motivation, communication, and quality improvement as applied to the hospitality industry.
Letter grade only (A-F).

492J. Internship in Hospitality Management (3)
Prerequisites: Student must be a major or minor in Hospitality Management; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Hospitality Management; and HFHM 276 or 372, 379, and 800 hours of approved work experience, or consent of instructor. Each prerequisite course must be completed with a grade of "C" or better.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
Letter grade only (A-F). May be repeated for 6 units maximum. (Seminar 3 hours)
HUMAN DEVELOPMENT
College of Liberal Arts

Chair: Carl Fisher
Department Office: Liberal Arts 3 (LA3) - 202
Telephone: (562) 985-4344
FAX: (562) 985-4237
Website: http://www.clas.csulb.edu/departments/hdev/
Faculty: Jeffrey P. Davis, Christine El Ouardani, Shelley J. Eriksen, Kimberly Kelly, H. Isabella Lanza, Beth Manke, Pamela Roberts, Heather Rae-Espinoza, Emily Schryer, Judith Stevenson
Administrative Support Coordinator: Wendy Lopez
Undergraduate Advisor: Rachna Soni

Career Possibilities
Elementary or Secondary School Teacher • Occupational Therapist • Physical Therapist • Parent Educator • Health Educator • Student Services • School Administration • Social Worker • Program Evaluator • Human Resources • Consumer Research • Health Administrator • Educational Counseling • Admissions or Academic Advising • Youth Program Specialist • Recreation Specialist • Community Organization Worker • Child Life Specialist • Training and Development Specialist • Senior Citizen Center Director • Gerontologist • Victim Witness Case Worker • Peace Corps Worker • Personnel Specialist • Teacher • Adoption Counselor • Marriage and Family Counselor • School Psychologist (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The field of Human Development studies lifespan development within societal and cultural contexts. Accordingly, Human Development is interdisciplinary, examining development primarily from the perspectives of its component disciplines: Anthropology, Biology, Psychology and Sociology.

The department offers a B.A. in Human Development and supervises the Human/Child Development concentrations in the Liberal Studies Program. The B.A. allows students to choose from a wide variety of Foundation Area courses. Careful selection of Foundation courses allows students to make significant progress in a minor or certificate while completing the major. In addition to academic training, students are taught to apply their knowledge through a semester Practicum.

The faculty of Human Development are active researchers, who regularly include interested students in their research programs. Students who are considering graduate school have the opportunity to work as research assistants on a variety of projects and can help present the findings of those projects at professional conferences. Research experience of this type enhances the likelihood that students will be accepted into a graduate program.

The Human Development Student Association (HDSA) is an active student club open to all students enrolled in Human Development courses and has regularly scheduled meetings. HDSA activities are posted outside the department office.

For more information, visit the office (LA3-202) or visit the department website. Students who wish to major in Human Development should seek early advising from the Undergraduate Advisor.

Bachelor of Arts in Human Development
(120 units)

Requirements
Lower Division:
Take 9 units from the following:
* "C" or better required
  HDEV 180 Lifespan Human Development (3)
  Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
  ANTH 120 Introduction to Cultural Anthropology (3)
  * "C" or better required
  Prerequisite/Corequisite: Any GE Foundation course.
  PSY 100 General Psychology (3)
  * "C" or better required
  Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.
  SOC 100 Principles of Sociology (3)
  * "C" or better required
  Prerequisite/Corequisite: A GE Foundation course.

Core Courses (27 units):
Take all of the following courses:
  HDEV 190 Elementary Statistics in Social and Behavioral Sciences (4)
  Prerequisites: Eligible to take a General Education Mathematics Course.
  HDEV 307 Approaches to Childhood (3)
  Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.
  HDEV 320 Research Methods in Human Development (4)
  Prerequisite: HDEV 190 or PSY 110 or SOC 170 or BIOL 260 with a "C" or better; and HDEV 307 with a "C" or better; and HDEV 357 with a "C" or better. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
  HDEV 357 Approaches to Adulthood Through Aging (3)
  Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.
  HDEV 470 Seminar/Practicum (4)
  Prerequisites: HDEV 320 with a "C" or better and HDEV 340 or HDEV 360 with a "C" or better; or consent of the instructor.

Take one of the following courses:
  HDEV 340 Families and Work: Life Course Processes (3)
  Prerequisites: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; or HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better.
  HDEV 360 Cultural Foundations for Human
Development (3)  
Prerequisites: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; 3 of HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better

Take one of the following courses:  
HDEV 402 Development of Thought: Structure, Process and Cultural Influences Across the Life Span (3)  
Prerequisite: HDEV 320 with a "C" or better and HDEV 340 or HDEV 360 with a "C" or better; or consent of the instructor.

HDEV 403 The Acquisition of Culture: Socialization in Cross-cultural Perspective (3)  
Prerequisites: HDEV 320 with a "C" or better, and HDEV 340 or HDEV 360 with a "C" or better; or consent of the instructor.

HDEV 404 Living and Dying in a Digital Age (3)  
Prerequisite: HDEV 320 with a 'C' or better, and HDEV 340 or HDEV 360 with a 'C" or better, or consent of instructor.

HDEV 407 Cultural Perspectives on Child & Adolescent Mental Health (3)  
Prerequisites: HDEV 320 with a 'C' or better, and HDEV 340 or HDEV 360 with a 'C' or better, or consent of instructor.

Take 3 more upper division units in HDEV earning a "C" or better.

Take 3 units from each of the following foundation areas:

**Biological:**

**Psychological:**
- CDFS 311, CDFS 411, GERN 400, GERN 430, HDEV 300, HDEV 327, HDEV 375, PSY 350, PSY 351, PSY 354, PSY 356, PSY 362, PSY 363, PSY 370, PSY 378, SOC 335.

**Sociocultural:**
- ANTH 351, ANTH 412, ANTH 419, ANTH 421, ANTH 454, ANTH 475, ASAM 340, ASAM 381, CDFS 413, CHLS 340, CHLS 350, CHLS 415, CWL 315, GERN 400, GERN 469, GERN 474, HDEV 300, HDEV 327, HDEV 340, HDEV 360, HDEV 375, LING 329, LING 379, LING 470, LING 472, SOC 320, SOC 325, SOC 340, SOC 345, SOC 346, SOC 423, SOC 464, SOC 466, WGSS 320, WGSS 375, WGSS 401, WGSS 416, WGSS 420, WGSS 475.

Students must earn a grade of at least "C" in all upper division major courses.

**Minor in Human Development**

The minor in Human Development may be combined with any major at CSULB except Human Development and Liberal Studies, Track II - Human Development Concentration. The minor in Human Development offers students an opportunity to supplement their education with an interdisciplinary study of lifespan development within societal and cultural contexts.

**Requirements**

A minimum of 7 courses, chosen in consultation with the Human Development Department Advisor.

Take one of the following courses:

- HDEV 180 Lifespan Human Development (3)  
  Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).

- ANTH 120 Introduction to Cultural Anthropology (3)  
  Prerequisite/Corequisite: Any GE Foundation course.

- PSY 100 General Psychology (3)  
  Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

- SOC 100 Principles of Sociology (3)  
  Prerequisite/Corequisite: A GE Foundation course.

Take all of the following courses:

- HDEV 190 Elementary Statistics in Social and Behavioral Sciences (4)  
  "C" or better required  
  Prerequisites: Eligible to take a General Education Mathematics Course. All students who complete another course as part of their major that is equivalent to a Human Development course (such as a statistics course equivalent to HDEV 190) must substitute another HDEV course for that one and earn a "C" or better.

- HDEV 307 Approaches to Childhood (3)  
  "C" or better required  
  Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.

- HDEV 320 Research Methods in Human Development (4)  
  Prerequisite: HDEV 190 or PSY 110 or SOC 170 or BIOL 260 with a "C" or better; and HDEV 357 with a "C" or better; and HDEV 357 with a "C" or better. *Students in the HDEV Minor may substitute one of the following methods classes in their major for HDEV 320 and instead take 3 more upper division units in HDEV and earn a "C" or better. These classes include ANTH 440, 458; PSYCH 220; SOC 354, 355.

- HDEV 357 Approaches to Adulthood Through Aging (3)  
  "C" or better required  
  Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.

Take one of the following:

- HDEV 340, Families and Work: Life Course Processes (3)  
  Prerequisite: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; 3 of HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better.

- HDEV 360 Cultural Foundations for Human Development (3)  
  Prerequisites: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; 3 of HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better.

Take 3 more upper division units in HDEV earning a "C" or better. All students in this minor must take at least 6 courses in Human Development.
### Courses (HDEV)

#### LOWER DIVISION

**180. Lifespan Human Development (3)**  
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).  
Introduction to the cognitive, social, emotional and physical development of humans within their ecological niches. Differing worldviews (anthropology, sociology, psychology, and biology) will be used to compare and contrast developmental milestones and issues from conception to death.

**190. Elementary Statistics in Social and Behavioral Sciences (4)**  
Prerequisites: Eligible to take a General Education Mathematics Course.  
Introduction to descriptive and inferential statistics and their applications in social and behavioral science research; performance of statistical exercises by interactive computer. Emphasis upon knowledge of which statistical tests to use and how to interpret their results.

Not open for credit to students with credit in ANTH 202, PSY 110, 210, SOC 170 or HDEV 190. (Lec 3 hrs, lab 2 hrs.)

**215. From Cradle to Crypt: Representations of the Lifespan (3)**  
Prerequisites: ENGL 100 or GE Composition (Area A1)  
Prerequisites/Corequisites: ANTH 120 or HDEV 180 or PSY 100 or SOC 100  
This course explores representations of the lifespan, from birth to death, highlighting interdisciplinary approaches to understanding literary and cultural texts in comparative and global contexts.  
Same course as CWL 215. Not open for credit to students with credit in CWL 215.

#### UPPER DIVISION

**300. Death and Dying (3)**  
Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100. Not open for credit to students with credit in HDEV 400.  
Exploration of social, cultural and individual aspects of death experience examined from historical, biological, legal, religious and ethical perspectives. Deathwork, the dying experience, survivorship, ritual and grief examined in light of life-span, cultural and gender diversity.

**307. Approaches to Childhood (3)**  
Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.  
Biological, psychological, and sociocultural aspects in the growth of the individual from conception through early adolescence will be considered. Relevant topics and theoretical issues will be treated in an interdisciplinary manner.  
Not open for credit to students with credit in NRSG 307.

**320. Research Methods in Human Development (4)**  
Prerequisite: HDEV 190 or PSY 110 or SOC 170 or BIOL 260 with a "C" or better; and HDEV 307 with a "C" or better, and HDEV 357 with a "C" or better. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.  
Research methods in human development including methods and models from anthropology, biology, psychology and sociology.  
Letter grade only (A-F). (3 hours seminar; 3 hours activity)

**327. Approaches to Adolescence and Emerging Adulthood (3)**  
Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100.  
Biological, psychological, and sociocultural aspects in the development of the individual from pubescence through emerging adulthood will be examined. Relevant topics and theoretical issues will be treated in an interdisciplinary manner.

**340. Families and Work: Life Course Processes (3)**  
Prerequisites: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; 3 of HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better.  
This course provides a framework for understanding families, work and their changing relationship. It examines historical transformations in Western and non-Western societies in the nature of work and how these changes have helped to reshape family forms, relationships and processes.

**357. Approaches to Adulthood Through Aging (3)**  
Prerequisites: GE Foundation requirements, upper-division standing, ANTH 120 or HDEV 180 or PSY 100 or SOC 100 with a "C" or better.  
Biological, psychological and sociocultural aspects in the development of the individual from late adolescence or youth until death. Relevant topics and theoretical issues are treated in an interdisciplinary manner.

Not open for credit to students with credit in NRSG 357.

**360. Cultural Foundations for Human Development (3)**  
Prerequisites: HDEV 307 with a "C" or better and HDEV 357 with a "C" or better; 3 of HDEV 180, ANTH 120, PSY 100, or SOC 100 with a "C" or better.  
Examination of the human life cycle from a global and cross-cultural comparative perspective. Consideration of how the phases of human development (and the transitions between them) are conceptualized and dealt with in a variety of sociocultural settings worldwide.

Not open for credit to students with credit in HDEV 401.

**375. Everyday Ruptures: Risk & Resilience in Human Development (3)**  
Prerequisites: HDEV 307 and HDEV 357 with a "C" or better.  
Across the lifespan, similar experiences may be interpreted differently based on biological, social, cultural, or psychological vulnerabilities and protective factors. This class asks when are adverse life events seen as part of everyday life and when are they seen as ruptures.

**402. Development of Thought: Structure, Process and Cultural Influences Across the Life Span (3)**  
Prerequisite: HDEV 320 with a “C” or better and HDEV 340 or HDEV 360 with a “C” or better, or consent of the instructor.  
Examination of theories and current research on the development of thought and problem solving across the lifespan and cross-culturally using a multidisciplinary approach. Specific topics include cognition, problem solving, intelligence, language and thought, understanding numbers, literacy and educational implications.

**403. The Acquisition of Culture: Socialization in Cross-cultural Perspective (3)**  
Prerequisites: HDEV 320 with a “C” or better and HDEV 340 or HDEV 360 with a “C” or better, or consent of the instructor.  
Examination of socialization as both a universal and culturally specific phenomenon. Topics include cross-cultural variations in teaching and learning; socialization of children and adult novices; socialization as key aspect of social and cultural reproduction and source of innovation and change.  
Letter grade only (A-F).
404. Living and Dying in a Digital Age (3)
Prerequisites: HDEV 320 with a "C" or better, and HDEV 340 or 360 with a "C" or better, or consent of instructor.
Psychological, social, and cultural transformations associated with the use of digital communication and media devices. We will examine in light of generational change, individual age, and other variables such as identity, cognition, communication, community, civics, human rights, and legacy.

407. Cultural Perspectives on Child & Adolescent Mental Health (3)
Prerequisites: HDEV 320 with a "C" or better, and HDEV 340 or 360 with a "C" or better; or consent of instructor.
This course is designed to examine child and adolescent psychopathology from an interdisciplinary perspective, using anthropological, sociological, psychological, and biological theories to look at some of the contemporary controversies in the study of children's mental health.

470. Seminar/Practicum (4)
Prerequisites: HDEV 320 with a "C" or better and HDEV 340 or HDEV 360 with a "C" or better; or consent of the instructor.
Provides for a sequence of observations and supervised participation with individuals in a variety of community agencies and/or educational settings. Practicum is supplemented by topical seminar discussions for two hours each week.
(Seminar 2 hrs, practicum 6 hrs.)

490. Selected Topics in Human Development (3)
Prerequisites: GE Foundation requirements, upper-division standing and consent of instructor.
Topics of current interest in human development selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

499. Independent Study (1-3)
Prerequisite: Consent of instructor and chair.
Student conduct independent laboratory, field, or library research and write a report of the research.
May be repeated to a maximum of 6 units.
Department Chair: H. Michael Chung  
Department Office: College of Business Administration (CBA) 426  
Telephone: (562) 985-4993 (O) 985-5543 (F)  
Website: www.csulb.edu/colleges/cba/is/  
Administrative Support Coordinator: Gordon Thompson  
For MBA with Specialization in Information Systems, see Business Administration, Graduate Programs.  

Career Possibilities  
Business Application Developers • Business Analysts • Database Designers • Web and E-Commerce Developers and Administrators • Webmasters • Wireless and Mobile Application Developers • Business Intelligence Analysts • Data Mining Specialists • Network and Security Specialists • Network Administrators • Social Media Specialists • Information Systems Consultants  
(For more information, see www.careers.csulb.edu.)

Undergraduate Programs  

Bachelor of Science in Business Administration  

Admission Under Impaction  
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.  

Requirements  
In order to graduate with a business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.  
All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.  

1. Lower Division:  
Take all of the following:  
ACCT 201 Elementary Financial Accounting (3)  
* C or better  
Prerequisite: None  
ACCT 202 Managerial Accounting (3)  
* C or better  
Prerequisites: ACCT 201  
ECON 100 Principles of Macroeconomics (3)  
* C or better  
Prerequisites: MATH 103 or higher; one GE Foundation course.  
ECON 101 Principles of Microeconomics (3)  
* C or better  
Prerequisite/Corequisite: MATH 103 or higher.  
MATH 115 Calculus for Business (3)  
* C or better  
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.  

Choose one of the following:  
STAT 118 Intro to Business Statistics (3)  
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.  
MATH 114 Finite Mathematics (3)  
Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 11.  

Students planning business options should take STAT 118.  

2. Critical Thinking Requirements  
Any critical thinking course (GE category A3); IS 100 is recommended.  

3. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:  
A. Passing score (70%) on the Computer Proficiency Examination (CPE).  
B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr).  
Prerequisite: None  
C. Transfer equivalent course with a "C" or better grade.  

4. Upper Division:  
A. Take all of the following:  
CBA 300 International Business (3)  
Prerequisite: None  
FIN 300 Business Finance (3)  
Prerequisite: None  
BLAW 320 Legal and Regulatory Environment of Business (3)  
Prerequisite: None  
IS 300 Management Information Systems (3)  
Prerequisite: IS 233 or equivalent.  
IS 301 Business Communications (3)  
Prerequisite: None  
IS 310 Business Statistics (3)  
Prerequisite: STAT 118 or MATH 114.  
HRM 360 Organizational Behavior (3)
Information Systems Courses (IS)

LOWER DIVISION

100. Critical Thinking and Information Technology Literacy (3)
Critical thinking and information literacy skills through information needs assessment, information gathering, diagnosis, synthesis, deductive and inductive reasoning, and reporting and presentation using information technologies.
Letter grade only (A-F).

233. Introduction to Computer Systems and Applications (3)
Introduction to using Internet and e-mail, Windows, word processing, spreadsheet, and database applications; basic computer literacy.
Credit/No Credit grading only.

UPPER DIVISION

300. Management Information Systems (3)
Prerequisite: IS 233 or equivalent.
Information systems concepts and components, contemporary organizational applications, development and management of information systems, and future trends. Computer-based team projects requiring integration and application of conceptual and skills-oriented information systems knowledge in business environment.
Letter grade only (A-F).

301. Business Communications (3)
Analysis of principles of collecting, organizing, analyzing, and presenting business information. Written and oral communications involving problem solving in the business management process.
Letter grade only (A-F).

301L. Business Communication Writing (3)
Prerequisite: Consent of instructor.
A writing intensive course format emphasizing concepts and practice for development of writing skills necessary for successful professional practice. This course may be used to satisfy the GWAR requirement. May be repeated to a maximum of 6 units in different semesters. May be used to satisfy the GWAR.

310. Business Statistics I (3)
Prerequisite: STAT 118 or MATH 114.
Application of statistics to business problems. Data collection and organization, probability theory, measures of central tendency and dispersion, hypothesis testing and estimation, simple regression, and correlation. Use of statistical software.
Letter grade only (A-F).

320. Spreadsheet Modeling for Business and Management (3)
Prerequisites: IS 233; STAT 118 or MATH 114.
Using spreadsheet to solve business and management problems. Complete coverage of spreadsheet topics including problem formulation, formula, functions, pivot table, macro, solver, spreadsheet forms and VBA, what-if analysis, dimensional analysis, optimization, and quantitative modeling. Data analysis and visualization using spreadsheet.
Letter grade only (A-F).

331. Professional and Workplace Communication (3)
Techniques, skills, and theories of empowering communication for entering and succeeding in the workplace and professional setting. Principles and professional practices of leading at work, interpersonal and collaborative workplace relationships, specialized writing and presentations, and workplace wellness are emphasized.
Letter grade only (A-F).
340. Business Application Programming (3)
Introduction to business application development. Programming concepts, variables, data types, operators, methods, conditionals and recursion. Classes, objects, encapsulation, inheritance, and polymorphism. User interface and database access. Program design, debug and test.
Letter grade only (A-F).
355. Introduction to Business Telecommunications (3)
Introduction to concepts and technology of telecommunications and networking in business and organizations. Basics of voice, data, image, and video transmission. Fundamentals of networking, use of Internet technology and telecommunication regulation and standards.
Letter grade only (A-F).
380. Database Management (3)
Introduction to database requirements, analysis and specification. SQL query formulation. Database implementation using relational database management system software, such as Oracle. Design of computerized business forms and reports.
Letter grade only (A-F).
385. Systems Analysis and Design (3)
Prerequisite: None
Introduction to current and emerging practices, concepts and methods of systems analysis and design. Development process models, requirements analysis and system modeling, conceptual and physical design, systems implementation and maintenance, project management and teamwork, roles and responsibilities of systems analysts.
Letter grade only (A-F).
445./545. Internet Applications Development (3)
Prerequisites: IS 340.
Design, management, and applications of Internet-based electronic business transaction systems. Special emphasis on Web home page design and database-driven Web application development.
Letter grade only (A-F). Lecture, hands-on software project and case studies.
455. Local Area Networks (3)
Prerequisites: IS 355.
Technology and system development of local area networks. Network requirement analysis, design, implementation, and operation from user and network administrator perspectives. Network server management, wide area network and Internet connectivity, and network security and control.
Letter grade only (A-F).
456. Systems Integration and Security (3)
Prerequisites: IS 355.
Technology, application, operating system, infrastructure, and systems integration in internetworking and enterprise networking. Interoperability, mobile system, multimedia, distributed and collaborative systems, network management, fault tolerance, security and middleware. Case studies and hands-on activities.
Letter grade only (A-F).
457. Wireless Systems and Mobile Applications (3)
Prerequisites: IS 340.
Letter grade only (A-F).
464./564. Network Modeling and Simulation (3)
Prerequisites: IS 310.
Fundamentals of simulation methodology for performance and feasibility study of business models. Basic probability distributions, random number generation, model formulation, evaluating results, validations, waiting-line simulation, and computer network performance measurement via simulation and use of computer software simulation packages.
Letter grade only (A-F).
470. Business Intelligence (3)
Prerequisites: IS 310.
Extract useful information (business intelligence BI) from large volumes of data or internet using BI software. Theories and applications in business intelligence, data mining, and business analytics. Topics include recommender system, collaborative filtering, classification, clustering, web mining, social network analysis.
Letter grade only (A-F).
480. Advanced Database Management (3)
Prerequisites: IS 380.
Advanced approaches such as object-oriented, data warehousing, and client/server methods to database applications and development. Use of entity-relationship analysis to identify objects. Development of relational database systems for a business. Application software development project using cutting-edge database technology.
Letter grade only (A-F).
482. Enterprise Systems (3)
Prerequisites: IS 340, IS 380.
Introduction to theories and application of enterprise systems. Issues and management of enterprise systems adoption. Understanding and hands-on experience of major business processes in enterprise systems. Enterprise systems configuration and customization with back-end programming language.
Letter grade only (A-F).
483. Business Applications Using Java (3)
Prerequisites: None
Development of business application using Java language. Tools and technologies including data types, program control, objects, classes and relationship, class inheritance, interfaces, polymorphism, inner classes, the relationship between super-classes and sub-classes, event-driven programming and socket-bases communication in Java.
Letter grade only (A-F).
484./584. eBusiness: Applications and Management (3)
Prerequisites: None
Letter grade only (A-F).
485. Information Systems Project (3)
Prerequisites: IS 301, IS 380.
A comprehensive systems project of moderate complexity for a client-server environment using a team approach for requirements analysis, system design, and prototype creation. Project planning and management techniques.
Letter grade only (A-F).
495. Selected Topics in Information Systems (1-3)
Prerequisites: Consent of instructor and GPA of 3.0 or higher in major.
Topics of current interest in the field.
May be repeated to a maximum of 6 units with different topics.
Topics announced in the Schedule of Classes.

497. Directed Studies (1-3)
Prerequisites: Consent of instructor and department chair; student must be on Dean's List with a GPA of 3.0 or higher in Management Information Systems.
Individual projects, research, or study in the option.
Director: Terrence H. Witkowski
Phone: (562) 985-4766
Website: www.csulb.edu/colleges/cba/ib/

Career Possibilities
Import/Export Agent • Foreign Sales Representative • Trade Broker • Buyer • Bank Manager • Financial Manager • Foreign Currency Investment Advisor • International Management Consultant • Relocation Consultant • Customs Broker

Undergraduate Programs

Bachelor of Science in Business Administration

Admission Under Impaction
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.

Requirements
In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

1. Lower Division:
Take all of the following:
- ACCT 201 Elementary Financial Accounting (3)
  * C or better
  Prerequisite: None
- ACCT 202 Managerial Accounting (3)
  * C or better
  Prerequisite: ACCT 201.
- ECON 100 Principles of Macroeconomics (3)
  * C or better
  Prerequisites: MATH 103 or higher; one GE Foundation course.
- ECON 101 Principles of Microeconomics (3)
  * C or better
  Prerequisite/Corequisite: MATH 103 or higher.
- MATH 115 Calculus for Business (3)
  * C or better
  Prerequisite: Appropriate ELM score, 3ELM exemption, or MAPB 11.
Choose one of the following:
- STAT 118 Intro to Business Statistics (3)
  Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
- MATH 114 Finite Mathematics (3)
  Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 11.

Students planning business options should take STAT 118.

2. Critical Thinking Course Requirements
Any critical thinking course (GE category A3); IS 100 is recommended.

3. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:
   A. Passing score (70%) on the Computer Proficiency Examination (CPE).
   B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr).
      Prerequisite: None
   C. Transfer equivalent course with a "C" or better grade.

4. Upper Division:
A. Take all of the following:
   - CBA 300 International Business (3)
     Prerequisite: None
   - FIN 300 Business Finance (3)
     Prerequisite: None
   - BLAW 320 Legal and Regulatory Environment of Business (3)
     Prerequisite: None
   - IS 300 Management Information Systems (3)
     Prerequisite: IS 233 or equivalent.
   - IS 301 Business Communications (3)
     Prerequisite: None
   - IS 310 Business Statistics (3)
     Prerequisite: STAT 118 or MATH 114.
   - HRM 360 Organizational Behavior (3)
     Prerequisite: None
   - MGMT 300 Principles of Management (3)
     Prerequisite: None
   - MKTG 300 Marketing (3)
     Prerequisite: None

B. The following Capstone course must be taken at CSULB as a senior and after the upper-division prerequisite core courses have been completed:
   - MGMT 425 Business Strategy and Policy (3)
     Prerequisites: ACCT 202 or 320; MGMT 300, MKTG 300, FIN 300 and IS 301.

C. Completion of option requirements.

5. Elective courses to total 120 units. Student are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.
Option in International Business
(120 units)

This option prepares students for an increasingly competitive and interdependent international business world and offers information about how international business practices and customs differ from those in the U.S. Students need some familiarity with a language other than English as well as knowledge of culture and world geography.

Requirements

1. Take all of the following:
   - ACCT 465 International Accounting (3)
     Prerequisites: ACCT 201, ACCT 202, IS 301.
   - FIN 490 International Finance (3)
     Prerequisites: FIN 300
   - MKTG 480 International Marketing (3)
     Prerequisite: MKTG 300, IS 301.

2. Take one of the following:
   - MGMT 405 International & Comparative Management (3)
     Prerequisites: MGMT 300, IS 301.
   - MGMT 406 International Business Policy (3)
     Prerequisite: MGMT 300, IS 301, CBA 300.

3. Take two of the following courses:
   - BLAW 424, CBA 493 (subject to approval of the Program Director), CBA 494 (A or B), HRM 458, MKTG 481, and MGMT 405 or MGMT 406 (whichever was not taken in satisfaction of requirement #1)

3. Nine units of upper-division GE capstone must be chosen from a list of courses with strong global or international emphasis. This list is available at the CBA Student Center for Success (CBA 100), from the Director of the International Business Program, and online at www.csulb.edu/colleges/cba/ib/majors/.

Minor in International Business

This minor designed to provide students with international business skills and cultural knowledge, which can be an advantage for job seeking and career building, as well as a source of personal enrichment. Students accepted for admission must have at least a 2.0 GPA with junior standing.

This minor requires 18 units.

Requirements

For Non-Business students only, CBA students are not eligible. (NOTE: The IS 301 prerequisite requirement is waived for minors.)

1. Take both of the following courses:
   - CBA 300 International Business (3)
     Prerequisite: None.
   - COMM 330 Intercultural Communication (3)
     Prerequisite: None.

2. Choose one of the following Tracks:
   - International Management Track
     - MGMT 300 Principles of Management (3)
       Prerequisite: None.
     - MGMT 405 International & Comparative Management (3)
   - International Marketing Track
     - MKTG 300 Marketing (3)
       Prerequisite: None.
     - MKTG 480 International Marketing (3)
       Prerequisites: MKTG 300, IS 301.
     - MKTG 481 International Marketing in Selected Markets (3)
       Prerequisites: MKTG 300, IS 301.
**INTERNATIONAL STUDIES**

College of Liberal Arts

**Director/ Professor:** Richard R. Marcus  
**Program Office:** LA-3 100  
Telephone: (562) 985-5236  
**Program Secretary:** Kandis Pogoda  
Telephone: (562) 985-5236  
Website: [http://www.cla.csulb.edu/departments/ist/](http://www.cla.csulb.edu/departments/ist/)

**Faculty:** Laura Ceia (French), Norma Chinchilla (Sociology), Kenneth Curtis (History), Barbara Grossman-Thompson, Angela Hawk (International Studies), Arlene Lazarowitz (History) Richard Marcus (International Studies), Caitlin Fouratt (International Studies), Unna Lassiter (Geography), Kimberley Walters.

**Career Possibilities**

International Development Officer • Program Officer • Foreign Service Officer • Researcher • Teacher • Intelligence Analyst • Social Service Worker • Lawyer • Community Organizer • Journalist • Administrator • Trade and International Business • Immigration Specialist • Reporter • Non-profit Management (Some of these, and other careers, require additional education or experience. For more information, see International studies website www.careers.csulb.edu or an International Studies advisor.)

**Bachelor of Arts in International Studies (120 units)**

The Bachelor of Arts in International Studies is an interdisciplinary degree program that marries a strong liberal arts education with a foundation in transecting international studies theories and a professionally-oriented skillset necessary for success in internationally-related careers. Students receive direct international experience through classroom-based international interactions and by participating in a foreign study program or an internationally related internship in this country.

International Studies students are curious global citizens who want to make their mark on the world. The major program provides them the tools and guidance to focus their interests and accomplish their goals. It prepares CSULB graduates for high demand jobs in fields like international trade and business, non-profits, international development, international affairs, education, and law.

International Studies uses an outcomes-oriented approach to higher education leading students to develop strong analytical and writing skills while teaching students how to integrate a wide variety of disciplinary methods, language competencies, and cross-cultural understandings into the study of global issues.

All International Studies majors are required to develop a program of study in consultation with the program advisor. Majors should choose their foreign language, foreign study or internship experience, and senior seminar research project to reflect this emphasis.

**The Dual Major Track:**

Students pursuing the Bachelor of Arts in International Studies can choose to instead enroll in the Dual Major Track. The Dual Major Track synthesizes the goals and outcomes of the International Studies major with the goals and outcomes of a second major. It differs from the standard International Studies major in that it allows students to replace the eighteen units of professional and regional development in the major with professional and regional development from the student’s second major. The student develops an interdisciplinary, international, intercultural knowledge base and skills, critical thinking skills, analytical reasoning skills, writing skills, and oral argument skills through the remaining International Studies coursework and uses the two advanced courses to integrate the two majors through an experiential learning paper and a senior research paper. Though students will overlap 18 units of coursework between the two majors advisor approval is necessary and students must complete both majors within 120 percent of the 120 units required for the Bachelor of Arts degree. Students are advised on strategies for integrating the two majors, language acquisition, and either study abroad or an internship in a timely, efficient, and rewarding manner.

**Requirements**

A minimum of 48 units in a program approved by the International Studies advisor.

**Requirements Not Included in Major**

Foreign Language:  
Three years of college level study or equivalent proficiency demonstrated in a language appropriate to the program of study and geographic area concentration selected.

**Major Requirements**

**Lower Division (15 units):**

Complete each of the following courses:

- I/ST 100 Global Citizenship (3)  
  Prerequisite/Corequisite: one GE A1 course
- I/ST 200 Introduction to International Studies (3)  
  Prerequisite: GE Foundation requirements.
- I/ST 222 Skills and Methods for Global Leadership (3)  
  Prerequisite: GE Foundation requirements.
- ECON 101 Principles of Macroeconomics (3)  
  Prerequisites: MATH 103 or higher and one GE Foundation course.
- ECON 101 Principles of Microeconomics (3)  
  Prerequisites/Corequisite: MATH 103 or higher.

**Upper Division: minimum of 33 units**

A course can only be counted towards one category in the major. All upper division courses counting towards the major except for I/ST 492 must be taken for a Letter Grade and must be completed with a grade of "C" or better.

**Category 1: Core Courses**

Complete three of the following core courses (9 units):

- I/ST 317, I/ST 319, I/ST 320, I/ST 339, I/ST 399, I/ST 419, I/ST 463.
Category 2: Professional Development Area
Complete three courses in any one of the following professional development areas (9 units):

(1) International Development:
- ANTH 307; ECON 310, ECON 311, ECON 372, ECON 366, ECON 464, ECON 465, ECON 470, ECON 471; GEOG 319, GEOG 452; HDEV 360; I/ST 319, I/ST 350, I/ST 419; POSC 461.

(2) Culture and Identity:

(3) Citizenship and Migration:
- ANTH 444, CHLS 335, HIST 412, I/ST 320, I/ST 399, SOC 358.

(4) Politics, International Relations, and Social Movements:
- AFRS 430; GEOG 470; HIST 345, HIST 478; I/ST 317, I/ST 318, I/ST 350, I/ST 478, JOUR 312; PHIL 351; POCS 353, POSC 362, POSC 367, POSC 371, POSC 376, POSC 450, POSC 455; SOC 317, SOC 318, SOC 449; WGSS 401, WGSS 402, WGSS 424, WGSS 425.

(5) International Environmental and Natural Resource Issues:
- ECON 464; ENGR 302; GEOG 340, GEOG 355, GEOG 440; HIST 464; I/ST 355.

Category 3: Geographic Area Concentration
Complete three courses in any one of the following geographic areas (9 units):

Europe Area Concentration:
- CHLS 450; CWL 330A-B, CWL 344, CWL 438; ENGL 359, ENGL 459, ENGL 466; FREN 440, FREN 456; GEOG 316; GERM 370, GERM 380; HIST 304, HIST 332, HIST 333, HIST 334, HIST 338, HIST 339, HIST 340, HIST 343, HIST 357, HIST 435, HIST 437; PHIL 414; RGR 314, RGR 315, RGR 346; RUSS 310, RUSS 428; SPAN 428, SPAN 446, SPAN 449, SPAN 430.

South Asia Area Concentration:

East Asia Area Concentration:

Latin America and the Caribbean Area Concentration:
- ANTH 432; CHLS 430, CHLS 450, CHLS 450A; GEOG 321; HIST 362, HIST 364, HIST 460, HIST 462, HIST 463, HIST 464, HIST 465; I/ST 476; POSC 358, POSC 481; SPAN 445, SPAN 450, SPAN 455, SPAN 460.

Middle East/North Africa Area Concentration:
- GEOG 309; HIST 393, HIST 394, HIST 417, HIST 432; I/ST 405, POSC 367, SOC 405.

North America Area Concentration:
Category 3: Advanced Coursework
I/ST 492 International Studies Internship/Foreign Study (3)
An internship or foreign study program related to the course of study selected, as approved by the Study Abroad and Internship Advisor.
Prerequisites: Consent of I/ST advisor; completion of a minimum of 15 upper division units required for the major in International Studies.
I/ST 490 Senior Research Seminar in International Studies (3)
Prerequisites: Senior standing or consent of the International Studies advisor and instructor.

Minor in International Studies
Requirements
This minor consists of a minimum of 18 units together with at least three years of college level of study (or equivalent proficiency) in a language (other than English) relevant to the student's program of study in International Studies.

Requirements Not Included in Major
Foreign Language:
Three years of college level study or equivalent proficiency demonstrated in a language appropriate to the program of study.

Lower Division (9 units):
Take the following courses:
I/ST 100 Global Citizenship (3)
Prerequisite/Corequisite: one GE A1 course
I/ST 200 Introduction to International Studies (3)
Prerequisite: GE Foundation requirements.
I/ST 222 Skills and Methods for Global Leadership (3)
Prerequisite: GE Foundation requirements.

Upper Division (9 units):
Nine units selected from the courses grouped in the International Studies Core as this group is defined for the Bachelor of Arts degree in International Studies.

International Studies Courses (I/ST)
General Education Foundation must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

LOWER DIVISION
100. Global Citizenship (3)
Prerequisite/Corequisite: one GE A1 course
An introduction to International Studies for majors and non-majors. Develops the ability to distinguish fact from judgment; to analyze, criticize and advocate ideas; to reach well-supported conclusions about global/local trends and impacts.
Letter grade only (A-F).

200. Introduction to International Studies (3)
Prerequisite: GE Foundation requirements.
Analyses of “the international.” Theoretical, political, social and cultural perspectives on contemporary globalization, modern European colonialism, and the historical and contemporary relationship of the United States to global relations and processes.

222. Skills and Methods for Global Leadership (3)
Prerequisite: Completion of GE Foundations
Develops applied intercultural competencies, scope and methods, and practical skills requisite for success in international studies and international affairs related fields.
Letter grade only (A-F).

UPPER DIVISION
317. Problems in International Social Conflict (3)
Prerequisites: GE Foundation requirements, one Exploration course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Topics may include ethnocentrism; nationalism; globalization; trade; aid; economic development; poverty; inequality; the environment; war; ideological, ethnic, gender, and religious conflict; democratization; social movements; new forms of civil society and social solidarity.
Letter grade only (A-F). Same course as SOC 317. Not open for credit to students with credit in SOC 317.

318. Cases in International Social Conflict (3)
Prerequisites: GE Foundation requirements, one Exploration course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Case studies will focus on globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest; human rights; democratization; global citizenship; environmental sustainability.
Letter grade only (A-F). Same course as SOC 318. Not open for credit to students with credit in SOC 318.

319. International Development (3)
Prerequisites: GE Foundation requirements, one Exploration course, upper-division standing.
Theoretical and practical analysis of social, political, and economic development and alternative developmental models. Contemporary and historical comparisons of how “developed” and “developing” areas of the world have confronted various economic, social, and political challenges.
Same course as GEOG 319. Not open for credit to students with credit in GEOG 319.

320. Migration and Modernity (3)
Prerequisite: Completion of all GE Foundation courses. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Examines global migration from 1700s-present, putting U.S. immigration history in context and emphasizing recent and contemporary trends around the world. Uses history, politics, and culture to consider migration’s intersections with race, ethnicity, and nationalism.
Letter grade only (A-F).

339. Global Feminisms (3)
Prerequisites: GE Foundations
What kind of feminist movement is possible when women across the globe have such different visions of what it means to thrive? This course examines the lives, activism, and movements these different visions engender, arguing for solidarity across diversity. Same course as: WGSS 401. Not open for credit to students with credit in WGSS 401.
Letter Grade Only (A-F)
350. Water: People, Politics, and Processes (3)
Prerequisites: GE Foundation requirements.
Explores the impact of water resources management on society, economy, and governance through socio-political and hydrological overviews as well as both domestic and international case studies.
Letter grade only (A-F). Same course as ENGR 350. Not open for credit to students with credit in ENGR 350. (Lecture-Problems 3 hours.)

355. International Environmental Issues (3)
Prerequisites: GE Foundation requirements, one Exploration course, and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examines the deterioration, destruction, maintenance and restoration of environmental systems and resources. Identifies and analyzes major environmental problems that have international dimensions. Investigates ongoing and potential efforts to resolve them.
Same course as GEOG 355. Not open for credit to students with credit in GEOG 355.

399. Contemporary Global Divisions of Labor (3)
Prerequisites: GE Foundations
Course Description: Examines divisions of labor across the globe and modern global connectivity. Explores how and why types of work and workers differ around the world. Investigates trends in global labor such as sweatshops, tech cities, job outsourcing and brain drain.
Same course as WGSS 339. Not open for credit to students with credit in WGSS 339
Letter Grade Only (A-F).

405. Un-Imaging the Middle East (3)
Prerequisites: Completion of GE Foundation requirements; I/ST 200, SOC 100, or consent of instructor. Student must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Excavates the roots of contemporary issues in the Middle East by rethinking interplay between the region and the global economy. It looks at how global political economic structures and regional social movements influenced each other's evolution in the 20th century. Letter grade only (A-F).

419. Applied International Development (3)
Prerequisite: I/ST 319 recommended.
Provides applied skills for practice of international development at local, national, regional and global levels. Development policy, applied tools and methodologies to pursue careers with United Nations system, development-oriented state agencies, non-profit organizations, bilateral and multi-lateral agencies, and private foundations.
Letter grade only (A-F).

449. Feminism and International Human Rights (3)
Prerequisite: Upper division status or consent of the instructor
Analyzes contemporary women's international human rights issues and social movements as influences on contemporary international human rights system. Covers international law, human rights treaty system, World Conferences, current issues, landmark cases, local/global activism, feminist intellectual debates.
Letter grade (A-F).

463. Nationalism and National Identities (3)
Prerequisites: POSC 100 and GE Foundation requirements. Consideration of the impact of nationalism on contemporary world politics with special attention to the role of national identities in the rise of political violence, national liberation movements, and the struggle for democracy. Close investigation of multiple historical and contemporary cases.
Same course as POSC 463. Not open for credit to students with credit in POSC 463.

476. Power and Violence in Latin America and the Caribbean (3)
Prerequisites: I/ST 200 or instructor consent. “Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).”
This course examines the history and cultural politics of dictatorship, revolution, and violence in Latin America and the Caribbean. Uses literature, film, history, and political theory to examine how power and violence intersect with race, ethnicity, gender, and nationalism.
Letter grade only (A-F). Same course as HIST 463. Not open for credit to students with credit in HIST 463.

478. Foreign Relations of the U.S. (3)
Incorporates a global perspective and considers the influence of such issues as domestic politics, bureaucratic rivalry and decision-making, economics, ideology, race, and the role of special interest groups on the making of foreign policy.
Same course as HIST 478. Not open for credit to students with credit in HIST 478.

480. Foreign Coursework in the Curriculum (1-12)
Upper Division college level coursework completed at a university outside the United States. All coursework must be provided by a recognized university or institution and must be preapproved by the International Studies Program.
Letter grade only (A-F). May be repeated to a maximum of 12 units, with different topics in same or different semesters.

490. Senior Research Seminar in International Studies (3)
Prerequisites: Senior standing or consent of the International Studies advisor and instructor.
Capstone research seminar for I/ST majors. Classroom preparation for directed research on a topic of choice integrating international economics and politics, cross-cultural communication, development studies, contemporary belief systems, language skills, and a geographic area.
Letter grade only (A-F).

492. International Studies Internship/Foreign Study (3)
Prerequisites: Consent of I/ST advisor; completion of a minimum of 15 upper division units required for the major in International Studies.
A study abroad program or an internship with internationally-oriented, governmental, non-governmental, and for-profit organizations required of I/ST majors. Internship conducted under joint supervision of program sponsor and CSULB faculty. Final report required for internships.
Credit/No Credit grading only.

493. Selected Topics in International Studies (1-6)
Prerequisite: Consent of instructor.
Analysis of contemporary issues and problems in International Studies.
Topics announced in the Schedule of Classes.
499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Individually directed studies of special problems in International Studies.
May be repeated to a maximum of 6 units with consent of program director. May not be credited toward the major in I/ST without written department consent in advance of enrollment. (Supervised) Letter grade only (A-F).
ITALIAN
College of Liberal Arts
Department of Romance, German, Russian Languages and Literatures

Department Chair: Markus Muller
Program Director and George L. Graziadio Chair for Italian Studies: Clorinda Donato
RGRLL Language Coordinator: Cedric Oliva
Single Subject Coordinator for L.O.T.E.: Cynthia Leathers
Department Office: Academic Services, Room 309
Telephone: (562) 985-4317
http://www.cla.csulb.edu/departments/rgrll/
Faculty: Clorinda Donato, Enrico Vettore
Center Coordinator: Manuel Romero
Major/Minor/Graduate Advisor: Clorinda Donato
Administrative Support Coordinator: Alessandro Russo

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

Career Possibilities
Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Italian Program exists thanks to an agreement between the Italian American community in Southern California and CSULB. This collaboration led to the establishment of the program itself as well as the Center for Italian Studies, named in honor of Mr. George L. Graziadio. The Center offers scholarships to study in Italy and regularly organizes workshops on Italian teaching. Its program of events is often shaped in collaboration with Italian and Italian American institutions and organizations in the area.

Bachelor of Arts in Italian Studies (120 units)
This program offers two concentrations: Italian Language and Culture and Interdisciplinary Italian Studies. Regular consultation with advisor is highly recommended.

Students are strongly encouraged to study abroad through the CSU International Program in Florence, Italy or semester-long options in Rome and Venice. In addition, there are program internship opportunities at Italian and Italian-American institutions in the area.

Once students have met the first- and second-year general language requirements, in the third year they take a common set of core courses in the target language. In the fourth year they choose between the two concentrations: students intending to earn the teaching credential select Italian Language and Culture; students interested in a more interdisciplinary approach select Interdisciplinary Italian Studies. Both tracks share a common core.

Requirements
Lower Division:
Competency in the Italian Language (14 to 16 units of lower division Italian). Take all of the following:
ITAL 101A Fundamentals of Italian (4)
Prerequisite/Corequisite: Any Foundation course.
or
ITAL 100A Fundamentals of Italian for Spanish Speakers (4)
Prerequisites: Two semesters of college Spanish or 3 years of high school Spanish; or be a native or heritage speaker of Spanish.
ITAL 101B Fundamentals of Italian (4)
Prerequisite/Corequisite: ITAL 101A or ITAL 100A or two years of high school Italian or equivalent. Any Foundation course.
or
ITAL 100B Fundamentals of Italian (4)
Prerequisites: ITAL 100A; or ITAL 101A with 2 semesters of college Spanish or 3 years of high school Spanish; or be a heritage or native speaker of Spanish.
ITAL 201A Intermediate of Italian (4)
Prerequisite: ITAL 101B, 100B, or three years of high school Italian or equivalent.
Prerequisite/Corequisite: Any Foundation course.
ITAL 201B Intermediate of Italian (4)
Prerequisite: ITAL 201A or four years of high school Italian or equivalent. Prerequisite/Corequisite: Any Foundation course.
or
ITAL 201 Intermediate Italian (6)
Prerequisites: ITAL 101B, 100B or a minimum of 3 years of high-school Italian.
or
ITAL 200 Intermediate Italian for Spanish Speakers (6)
Prerequisites: ITAL 101B or ITAL 100B, or 3 years of high school Italian and 2 years of college Spanish or be a native or heritage Spanish speaker.

Some of these courses may be waived for students who have completed sufficient high-school Italian or have proved intermediate-level proficiency. Native speakers of Italian may not enroll in ITAL 100A, ITAL 100B, ITAL 101A, ITAL 101B, ITAL 200, ITAL 201, ITAL 201A, or ITAL 201B.

Upper Division (minimum 33 units):
Basic Core (24 units):
ITAL 310 Introduction to Analysis of Italian Literature (3)
Prerequisite: Upper division standing in Italian or equivalent.
ITAL 312A Advanced Italian I (3)
Prerequisite: Upper division standing in Italian or equivalent.
ITAL 312B Advanced Italian II (3)
Prerequisite: Upper division standing in Italian or equivalent.
ITAL 314 Advanced Conversation (3)
Prerequisite: ITAL 214 or consent of the instructor.
ITAL 335 Survey of Italian Literature I: Middle Ages-Eighteenth Century (3)
Prerequisites: Upper division standing in Italian or consent.
of instructor.
ITAL 336 Survey of Italian Literature I: Nineteenth and Twentieth Centuries (3)
Prerequisites: Upper division standing in Italian or consent of instructor.
ITAL 340 Italian Civilization (3)
Prerequisite: Upper division standing in Italian or consent of instructor.
ITAL 482 The Building of the Italian Nation (3)
Prerequisites: ITAL 310, 335, 336 or consent of instructor.

Concentration I - Italian Language and Culture

Electives (9 units): ITAL 411, ITAL 414*, ITAL 430, ITAL 433, ITAL 454, ITAL 462, ITAL 473, ITAL 476, ITAL 478, ITAL 490, ITAL 494, ITAL 499, RGR 490.

Two years of a second foreign language.
* Candidates who intend to teach Italian language are required to take ITAL 414.

Concentration II - Interdisciplinary Italian Studies

Electives (9 units): AH 423, AH 424; CWL 422, CWL 430, CWL 432, HIST 332; ITAL 345, ITAL 411, ITAL 414, ITAL 430, ITAL 454, ITAL 462, ITAL 473, ITAL 476, ITAL 478, ITAL 490, ITAL 494, ITAL 499; RGR 314, RGR 315, RGR 346, RGR 400, RGR 490.

Electives and Other Courses

Close work with the advisor will enable majors to design a comprehensive study plan for their entire CSULB experience and for life-long learning. General Education courses and electives should be chosen to coordinate with the major.

Single Subject Teaching Credential in Italian

Completion of Concentration I (Language and Culture) of the Italian major meets the subject matter competence requirement for the Single Subject Teaching Credential in Italian. Prospective students should consult the undergraduate Italian Advisor and the Languages Other Than English (LOTE) Credential Program Advisor early to plan their program.

In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective teachers of Italian are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of professional preparation requirements, courses, and application procedures.

Requirements

Same as the BA in Italian, Concentration I (Italian Language and Culture).

Minor in Italian

Requirements: 18 to 34 units, depending on language competency.

Language Competency:
Students must achieve intermediate competency in Italian equivalent to either ITAL 200, 201 or 201B prior to enrolling in upper division coursework. The total number of lower-division units depends on the student's existing language competency and can range from 0 to 16 units depending on placement. Students should consult with the undergraduate advisor regarding demonstration of existing language competency.

Upper Division Requirements

Minimum of 18 upper division units.

Take all of the following courses:
ITAL 312A Advanced Italian I (3)
Prerequisite: Upper division standing in Italian or equivalent.
ITAL 312B Advanced Italian II (3)
Prerequisite: Upper division standing in Italian or equivalent.
ITAL 314 Advanced Conversation (3)
Prerequisite: ITAL 214 or consent of the instructor.

Take 9 units chosen from the following courses:
ITAL 310, ITAL 335, ITAL 336, ITAL 340, ITAL 345, ITAL 411, ITAL 414, ITAL 454, ITAL 462, ITAL 476, ITAL 478, ITAL 482, ITAL 490, ITAL 494, ITAL 499.

Master of Arts in Italian Studies

Prerequisites

1. A bachelor of arts degree in Italian, Italian Studies or:
2. A minor degree in Italian Studies with a minimum of 18 upper-division units in Italian Studies plus 6 units in related humanities and social science fields. These courses must be comparable to those required of a major in Italian Studies at this University. Deficiencies will be determined by the advisor after consultation with the student and study of transcript records.

Advancement to Candidacy

1. Approval of the graduate program by the graduate advisor, the faculty advisor and/or departmental committee, and the College of Liberal Arts Associate Dean of Graduate Studies.
2. The candidate should file for advancement upon completion of 6 units and preferably no more than 9 units on the program. A 3.0 GPA is required.
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).

Requirements

1. Completion of a minimum of 30 units of approved graduate courses, with a minimum of 15 units in courses that are exclusively for graduate students in the 500 and 600 series in Italian Studies and related fields;
2. Specifically required courses include:
ITAL 600 Italy and the Idea of Europe (3)
Prerequisite: Graduate standing required
ITAL 650 Research Methodology and Critical Theory (3)
Prerequisite: Graduate standing required;
3. Two years of one of the following languages: French, German, Portuguese, Russian or Spanish, or pass an examination at intermediate level in one of those languages. Major or minor in a second foreign language may be used to fulfill this requirement in consultation with the Graduate Advisor. For other languages, consult the Graduate Advisor;
4. Maintain a GPA of at least “B” (3.0) in the program;
5. Pass comprehensive examinations on the Graduate Reading List in three areas to be selected by student upon consultation with Graduate Advisor, or complete a Masters Thesis (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.);
6. No more than six units of transfer graduate credits are allowed, subject to approval by the Graduate Advisor. No more than six units of International Programs course work may be credited toward the 30-unit Italian requirement for the MA at this university;
7. Teaching Associates must take RGR 601, Teaching Methodology. These units do not count toward the required 30 units for completion of the MA.

### Italian Courses (ITAL)

#### LOWER DIVISION

**100A. Fundamentals of Italian for Spanish Speakers (4)**
Prerequisites: Two semesters of college Spanish or 3 years of high school Spanish; or be a native or heritage speaker of Spanish.
Introductory course on the fundamental skills of speaking, reading, writing and comprehending Italian with an emphasis on the structural similarities between Italian and Spanish.
Not open to heritage speakers or native speakers of Italian. Not open for credit to students with credit in ITAL 101A or ITAL 102A.

**100B. Fundamentals of Italian for Spanish Speakers (4)**
Prerequisites: ITAL 100A; or ITAL 101A with 2 semesters of college Spanish or 3 years of high school Spanish; or be a heritage or native speaker of Spanish.
Introductory course on the fundamental skills of speaking, reading, writing and comprehending Italian with an emphasis on the structural similarities between Italian and Spanish.
Not open to heritage or native speakers of Italian. Not open for credit to students with credit in ITAL 101B or ITAL 102B.

**101. Fundamentals of Italian (6)**
Prerequisite/Corequisite: Any Foundation course.
Two semesters of fundamental Italian are covered in one semester in this intensive hybrid (blended) course.
Not open to heritage or native speakers of Italian. Not open to students who have completed ITAL 101A, ITAL 101B, ITAL 100A or ITAL 100B. (4 hrs. in class, 2 hrs. online)

**101A. Fundamentals of Italian (4)**
Prerequisite/Corequisite: Any Foundation course.
Introduction to fundamental skills of speaking, oral comprehension, reading, and writing. For those who are beginning the study of Italian or who have had one year of high school Italian.
For non-native speakers only. Not open to heritage speakers or native speakers of Italian. Course fee may be required.

**101B. Fundamentals of Italian (4)**
Prerequisite/Corequisite: ITAL 101A or two years of high school Italian or equivalent. Any Foundation course.
Fundamental skills of speaking, oral comprehension, reading and writing.
For non-native speakers only. Not open to heritage speakers or native speakers of Italian. Course fee may be required.

**200. Intermediate Italian for Spanish Speakers (6)**
Prerequisites: ITAL 100B or ITAL 101B, or ITAL 100B or 3 years of high school Italian and 2 years of college Spanish or be a native or heritage Spanish speaker.
Two semesters of Intermediate Italian are covered in one semester in this intensive hybrid (blended) course designed for students who are either native or heritage speakers of Spanish or have at least intermediate- to advanced-level proficiency in Spanish (see prerequisites).
Not open to heritage speakers or native speakers of Italian. Not open to students with credit in ITAL 201A or ITAL 201B.

**201. Intermediate Italian (6)**
Prerequisites: ITAL 101, ITAL 101B, ITAL 100B or a minimum of 3 years of high-school Italian.
Prerequisite/Corequisite: Any Foundation course.
Two semesters of Intermediate Italian are covered in one semester in this intensive hybrid (blended) course.
Not open to heritage or native speakers of Italian. Not open to students who have completed ITAL 200, ITAL 201A or 201B. (4 hrs. in class, 2 hrs. online)

**201A. Intermediate Italian (4)**
Prerequisite: ITAL 101B or three years of high school Italian or equivalent.
Prerequisite/Corequisite: Any Foundation course.
Continued development of speaking, oral comprehension, reading, and writing skills.
For non-native speakers only. Not open to heritage speakers or native speakers of Italian. Course fee may be required.

**201B. Intermediate Italian (4)**
Prerequisite: ITAL 201A or four years of high school Italian or equivalent.
Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading, and writing skills.
For non-native speakers only. Not open to heritage speakers or native speakers of Italian. Course fee may be required.

**214. Intermediate Conversation (3)**
Prerequisite: ITAL 101B.
Prerequisite/Corequisite: ITAL 201A or ITAL 201B.
Designed to develop basic conversational skills and to prepare for more advanced work in ITAL 314.

#### UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

**310. Introduction to Analysis of Italian Literature (3)**
Prerequisite: Upper division standing in Italian or equivalent.
Imparts literary terminology and the study of the primary genres in Italian literature through an analysis of exemplary texts. A brief overview of methodologies will also be introduced, i.e., structuralism, sociological, gender studies, formalism and deconstruction.

**312A. Advanced Italian I (3)**
Prerequisite: Upper division standing in Italian or equivalent.
Review of grammatical principles with regular exercises and composition work for the development of increased mastery of the written language.
312B. Advanced Italian II (3)
Prerequisite: Upper division standing in Italian or equivalent. Review of grammatical principles with regular exercises and composition work for development of increased mastery of written language.

314. Advanced Conversation (3)
Prerequisite: ITAL 214 or consent of the instructor. Continuation of ITAL 214. More advanced use of spoken Italian to establish strong basis for correct and fluent proficiency in oral idiom.

335. Survey of Italian Literature I: Middle Ages–Eighteenth Century (3)
Prerequisites: Upper division standing in Italian or consent of instructor. Introductory study of the most important Italian literary works, authors, and movements of Italian literature from the Middle Ages to the Eighteenth Century.

336. Survey of Italian Literature II: Nineteenth Century to Present (3)
Prerequisites: Upper division standing in Italian or consent of instructor. Introductory study of the most important Italian literary works, authors, and movements of Italian literature from the Nineteenth and Twentieth Centuries.

340. Italian Civilization (3)
Prerequisite: Upper division standing in Italian or consent of instructor. Multidisciplinary study of Italian culture from unification (1861) to present, special emphasis on last thirty years. Crucial historical moments analyzed for social and cultural impact on Italian customs, and ways of thinking. Taught in Italian.

345. Italian American Culture (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone. Italian-American Culture addresses migration, cultural conflict, and ethnic identity formation in the context of the Italian American experience. Interdisciplinary in nature with an emphasis on Human Diversity, the course examines the historical and cultural legacy of labor exploitation, discrimination, women's roles, interethnic relations, religion, food, family, and media representation. Taught in English.

411. Advanced Syntax, Grammar, and Stylistics (3)
Prerequisite: ITAL 312B. Provides an in depth study of Italian syntax in order to improve skills for written Italian. Vocabulary development and analysis and imitation of writing styles and forms will be emphasized.

414./514. History of the Italian Language (3)
Prerequisite: Upper division standing or consent of instructor. Examines the main developments in the transformation from Latin to Italian, and the debates on what constitutes the Italian language (questione della lingua) 1200 – present, including the contributions of Dante Alighieri, Machiavelli, Alessandro Manzoni, the Italian diaspora and recent immigration. Letter grade only (A-F).

430. Dante's Divine Comedy
Prerequisites: Upper division standing or consent of instructor. In-depth study of Dante's Divine Comedy and Vita nuova. Students are exposed to the author's worldview through close reading and cultural context. Classical interpretations as well as the latest critical views will be studied. Taught in Italian or English.

433. Italian Literature as Historical Memory (3)
Prerequisites: Upper division standing in Italian or consent of instructor. Select texts of Italian literature are analyzed as sources for the understanding of Italian history and culture 1300-1800. Letter grade only A-F).

454./554. Italian Cinema (3)
Prerequisites: Upper division standing. Overview of main movements and directors in the history of Italian cinema. Socio-political and aesthetic analysis will be adopted in reading films from the post-war period to the present. Letter grade only (A-F). Same course as FEA 454. Not open for credit to students with credit in FEA 454 (2 hrs. seminar, 2 hrs activity.)

462./562. Italian Women Writers (3)
Prerequisite: Upper division standing or consent of instructor. Studies roles of women writers within history of Italian literature from Middle Ages through Renaissance to contemporary literature. Letter grade only (A-F). Not open for credit to students with credit in ITAL 424.

473./573. Masterpieces of Italian Renaissance Literature (3)
Prerequisites: Upper division standing or consent of instructor. Readings in Italian Quattro- and Cinquecento thought to explore its evolution toward "the new learning of humanism" and the valorization of human ability, worldly matters, and secular culture. Letter grade only (A-F).

476./576 The Modern Italian Short Story (3)
Prerequisite: Upper division standing or consent of instructor. Selected Italian short stories of the 19th and 20th Centuries are analyzed as sources for the understanding of Italian history, culture, anthropology and politics. Letter grade only (A-F).

478. The Italian Novelistic Tradition (3)
Prerequisites: ITAL 335 and ITAL 336 or consent of instructor. Historical overview of the Italian novelistic tradition with in-depth study of representative Italian novels. Letter grade only (A-F). May be repeated to a maximum of 6 units, with different topics in different semesters.

482./582. The Building of the Italian Nation (3)
Prerequisites: Upper division standing or consent of instructor. Explores the literature, the ideas and the cultural artifacts that promoted the creation and building of Italian nation from the Middle Ages to the present. Letter grade only (A-F).

490. Selected Topics in Italian (3)
Prerequisite: Upper division standing in Italian or consent of instructor. Study of a particular topic or aspect of Italian literature, language or culture. May be repeated to a maximum of 12 units with different topics. Topics announced in the Schedule of Classes. Course fee required if topic is offered abroad.

494. Internship in Italian (1-3)
Prerequisites: Consent of instructor and department chair. Field work in Italian, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directs by a supervising faculty member. May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in Italian.
499. Directed Studies (1-3)
Prerequisite: Consent of instructor and department chair. Independent study under the supervision of a faculty member. May be repeated to a maximum of 6 units.

GRADUATE LEVEL

514./414. History of the Italian Language (3)
Prerequisite: Graduate Standing
Examines the main developments in the transformation from Latin to Italian, and the debates on what constitutes the Italian language (questione della lingua) 1200 – present, including the contributions of Dante Alighieri, Machiavelli, Alessandro Manzoni, the Italian diaspora and recent immigration.
Letter grade only (A-F).

520. Dante’s Divine Comedy
Prerequisites: Graduate standing.
In-depth study of Dante’s Divine Comedy and Vita Nuova. Students are exposed to the author’s worldview through close reading and cultural context. Classical interpretations as well as the latest critical views will be studied. Taught in Italian or English.
Letter grade only (A-F).

533./433. Italian Literature as Historical Memory (3)
Prerequisites: Graduate standing in Italian or consent of instructor.
Select texts of Italian literature are analyzed as sources for the understanding of Italian history and culture 1300-1800.
Letter grade only (A-F).

554./454. Italian Cinema (3)
Prerequisite: Graduate Standing
Overview of main movements and directors in the history of Italian cinema. Socio-political and aesthetic analysis will be adopted in reading films from the post-war period to the present.
Letter grade only (A-F). (2 hrs. seminar, 2 hrs. activity)

562./462. Italian Women Writers (3)
Prerequisite: Graduate Standing
Studies roles of women writers within history of Italian literature from Middle Ages through Renaissance to contemporary literature.
Letter grade only (A-F).

573/473. Masterpieces of Italian Renaissance Literature (3)
Prerequisite: Graduate Standing
Readings in Italian Quattro- and Cinquecento thought to explore its evolution toward the “new learning of humanism and the valorization of human ability, worldly matters, and secular culture.
Letter grade only (A-F).

576./476. The Modern Italian Short Story (3)
Prerequisite: Graduate level standing.
Selected Italian short stories of the 19th and 20th Centuries are analyzed as sources for the understanding of Italian history, culture, anthropology and politics.
Letter grade only (A-F). May be repeated to a maximum of 6 units, with different topics in different semesters.

578./478. The Italian Novelistic Tradition (3)
Prerequisites: ITAL 335 and ITAL 336 or consent of instructor.
Historical overview of the Italian novelistic tradition with in-depth study of representative Italian novels.
Letter grade only (A-F).

599. Directed Study (3)
Prerequisite: Graduate standing and consent of instructor. Independent study under the supervision of a faculty member. May be repeated to a maximum of 6 units with different topics in different semesters.

602./482. The Building of the Italian Nation (3)
Prerequisite: Graduate Standing
Explores the literature, the ideas and the cultural artifacts that promoted the creation and building of Italian nation from Middle Ages to present.
Letter grade only (A-F).

650. Italy and the Idea of Europe. Nation, State, Culture, Economy; 1861-Present (3)
Prerequisite: Graduate Standing
This course covers the evolution of the idea of Europe as seen against the backdrop of the cultural and economic history of the Italian nation.
Letter grade only (A-F).

660. Research Methods and Critical Theory (3)
Prerequisite: Graduate standing
Introduction to methods of research/critical theory. Course familiarizes students with techniques and terminology of critical theory in the Italian tradition and how to apply them to film and literary texts. This course may be taught in Italian or English.
Letter grade only (A-F). (Seminar 3 hours)

688. Seminar in Italian Literature or Culture (3)
Prerequisite: Graduate Standing
In-depth study of a specific author, movement or aspect of Italian literature or culture. Students are exposed to both classical interpretations as well as the latest critical views of the selected topic.
Letter grade only (A-F). May be repeated to a maximum of 6 units, with different topics in different semesters. Topics to be announced in the Schedule of Classes.

697. Directed Research (1-3 units)
Prerequisite: Graduate Standing and Consent of Instructor.
Directed research under the supervision of a faculty member in preparation of the Comprehensive Exam.
May be repeated to a maximum of 6 units in different semesters.

698. Thesis (3)
Prerequisite: Graduate Standing and Consent of Instructor.
Planning, preparation, and completion of thesis in Italian Studies for the master’s degree.
Letter grade only (A-F) May be repeated to a maximum of 6 units in the same semester.
Planning a Program of Study

The student and undergraduate advisor should plan a coherent program that both fulfills the requirements of the major and covers the student’s areas of interest in allied fields outside the Japanese language.

Requirements

A minimum of 36 units is required. JAPN 201 and 202 are prerequisite to the major and may be satisfied by appropriate high school preparation or by examination.

Lower Division (3 units):

Take all the following courses:

- AAAS 100 Asian Eats (3)
  - Prerequisites: None

Upper Division (33 units):

Take all the following courses:

- JAPN 301 Advanced Japanese (3)
  - Prerequisites: JAPN 202 or equivalent as determined by instructor.
- JAPN 302 Advanced Japanese (3)
  - Prerequisites: JAPN 301 or equivalent as determined by instructor.
- JAPN 311 Advanced Spoken Japanese (3)
  - Prerequisites: JAPN 202 or equivalent as determined by instructor.
- JAPN 312 Advanced Spoken Japanese (3)
  - Prerequisites: JAPN 311 or equivalent as determined by instructor.
- AAAS 492 Senior Research Seminar (3)
  - Prerequisites: Upper-division standing in Asian Studies, Japanese, Chinese Studies or Asian American Studies

Bachelor of Arts in Japanese (120 units)

The Bachelor of Arts program in Japanese at CSULB is designed to provide students with linguistic and cultural preparation supported by international perspectives and understanding of humanities for personal, social, intellectual and cognitive development as well as development of skills for economic self-sufficiency in the ever-intertwining world of global economy. It emphasizes pragmatic language studies aiming for acquisition of communication skills through communication based instruction, and providing knowledge of language and culture to develop appropriate understanding and attitudes for intercultural communication.

Planning a Program of Study

The student and undergraduate advisor should plan a
## Single Subject Teaching Credential in Japanese

The Japanese Subject Matter Credential Program at CSU, Long Beach is designed to provide students with linguistic and cultural preparation and understanding of humanities for personal, social, intellectual and cognitive development as well as development of skills for economic self-sufficiency in the ever-intertwining world of global economy. It is intended to produce educators prepared in teaching Japanese with the communication proficiency, critical thinking skills, and sociocultural understanding essential for effective intercultural communication as well as pedagogical knowledge and training in teaching Japanese to diverse populations in our society.

The program requires a minimum of 30 semester units of upper-division courses in Japanese as listed below under the four subject categories: Language, Linguistics, Culture, and Literature. Students should take 21 units of core courses and 9 units of electives. All upper division courses are conducted in the target language and require completion or equivalent of the four semesters of lower division Japanese language courses.

All upper-division language courses are designed to develop competency in four skills and content. However, JAPN 311 and 312 emphasize spoken Japanese at advanced level, while JAPN 301 and 302 emphasize reading and writing at advanced level. The content courses represent three areas of study - Japanese culture, linguistics, and literature. The culture courses provide an overview of Japanese history from the prehistoric times to contemporary Japan, and an insight into Japanese culture and society. The linguistics courses introduce the sound, meaning, syntactic and discourse structure of language, and offer a comparison of Japanese and English as well as other languages. The literature course introduces selected major literary works, which will provide sources to cultivate literary appreciation and to develop cultural understanding of Japan.

A grade of "C" or better is required in all courses accepted for the Japanese program. The exit requirement is "Advanced" level Japanese language proficiency.

In addition to meeting the subject matter competence requirement for the teaching credential, prospective teachers of Japanese are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of professional preparation requirements, courses, and application procedures. Prospective students should consult the Japanese Education Advisor and the Languages Other Than English (LOTE) Program Advisor early to plan their program.

The Japanese Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

### Core Requirements

24 upper division units selected from the following areas:

1. **Language:**
   - JAPN 301 Advanced Japanese (3)
     - Prerequisites: JAPN 202 or equivalent as determined by instructor.
   - JAPN 302 Advanced Japanese (3)
     - Prerequisites: JAPN 301 or equivalent as determined by instructor.
   - JAPN 311 Advanced Spoken Japanese (3)
     - Prerequisites: JAPN 202 or equivalent as determined by instructor.
   - JAPN 312 Advanced Spoken Japanese (3)
     - Prerequisites: JAPN 311 or equivalent as determined by instructor.

2. **Linguistics:**
   - JAPN 461 Structure of the Japanese Language (3)
     - Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.

3. **Literature:**
   - JAPN 471 Readings in Modern and Contemporary Japanese Literature (3)
     - Prerequisite: JAPN 302 and JAPN 312, or equivalent as determined by instructor.

4. **Culture:**
   - JAPN 451 Japanese Civilization (3)
     - Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.

**Electives:**

Take a total of 6 units selected from at least two different areas in consultation with a program advisor based on the student's background, interest, and teaching plans.

- Language: JAPN 421, JAPN 422
- Linguistics: JAPN 462, JAPN 463, JAPN 481
- Literature: JAPN 371
- Culture: JAPN 350; JAPN 492

**Variable Subjects:** JAPN 490; JAPN 497

### Japanese Courses (JAPN)

#### LOWER DIVISION

101. **Fundamentals of Japanese (4)**

- Prerequisite: One GE Foundation (may be taken concurrently) or formal prerequisites and/or competency equivalent for JAPN 101.
- Introduction to pronunciation, reading, writing, conversation, and structure of the Japanese language.
- Native speakers of Japanese who have completed compulsory education in Japan may not enroll.
102. Fundamentals of Japanese (4)
Prerequisites: JAPN 101; one GE Foundation course (may be taken concurrently) or formal prerequisites and/or competency equivalent for advanced study in Japanese.
Introduction to pronunciation, reading, writing, conversation, and structure of the Japanese language.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

201. Intermediate Japanese (4)
Prerequisites: JAPN 102; GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
Continuation of first year Japanese. Further development of listening, speaking, reading, writing, and communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

Prerequisites: JAPN 201; GE Foundation requirements, or formal prerequisites and/or competency equivalent for advanced study in Japanese.
Continuation of first year Japanese. Further development of listening, speaking, reading, writing, and communication.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

250. Japanese Anime and Manga (3)
Students examine, analyze, and discuss selected topics in Japanese culture and modern society by analyzing Japanese animation (anime) and printed cartoons (manga). Familiarity with Japanese language is desirable but not required.

UPPER DIVISION
General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

301. Advanced Japanese (3)
Prerequisites: JAPN 202 or equivalent as determined by instructor.
Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

302. Advanced Japanese (3)
Prerequisites: JAPN 301 or equivalent as determined by instructor.
Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

311. Advanced Spoken Japanese (3)
Prerequisites: JAPN 202 or equivalent as determined by instructor.
Advanced study in modern spoken Japanese and Japanese conversation.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

312. Advanced Spoken Japanese (3)
Prerequisites: JAPN 311 or equivalent as determined by instructor.
Advanced study in modern spoken Japanese and Japanese conversation.
Native speakers of Japanese who have completed compulsory education in Japan may not enroll.

350. Japanese Language, Culture, and Communication (3)
Study of Japanese language and culture through sociolinguistic perspectives. Exploration of the interrelationship between the language and culture by focusing on verbal and nonverbal communicative behaviors. Taught in English and Japanese.
Letter grade only for Japanese majors.

371. Survey of Japanese Literature (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Presents a survey of the major literary works from Kojiki to contemporary Japanese authors. Students reflect on the predominant movements, genres, rhetorical devices, literary techniques, and writers of the works.
Conducted in Japanese and English. Letter grade only (A-F).

385. Japanese Language and Culture for Heritage Learners (3)
Prerequisite: Consent of instructor or a placement test.
Designed to address the particular needs of students of Japanese as a heritage language, the course emphasizes individual learning to improve formal use of the language in listening, speaking, reading and writing, and cultural knowledge.
May be repeated to a maximum of 6 units in different semesters. Letter grade only (A-F).

421./521. Selected Readings/Writing in Japanese (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Readings from a selection of contemporary materials including literary works, magazines, newspapers, websites, instructional and technical materials.
Letter grade only for Japanese majors.

422./522. Technical Japanese (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Development of receptive and productive skills using authentic materials drawn from business, humanities, sciences, and others that will be selected according to students' interest.
Letter grade only (A-F).

451./551. Japanese Civilization (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Introduction and exploration of characteristic features of Japanese civilization and culture through studying selected topics and themes in fields such as arts, humanities, sciences, and social sciences. Conducted in Japanese.
Letter grade only (A-F) for Japanese majors.

452. Japan: Its Land, People and Culture (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Students will study the land of Japan and learn how the land's physical features have influenced its people and culture, including history, way of life, and language. Taught in Japanese.
Letter grade only (A-F).

453. Japanese Culture as Social Process (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as determined by instructor.
Major features of Japanese culture and society are analyzed. Key characteristics of contemporary Japanese society are compared with Western society, emphasizing processes in common. Taught in Japanese and English.
Letter grade only (A-F).
461./561. The Structure of the Japanese Language (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Introduction to phonology, morphology, syntax, semantics and
discourse of modern Japanese. Conducted in Japanese with some
readings in English.
Letter grade only for Japanese majors.

462./562. Contrastive Analysis of English and
Japanese (3)
Prerequisites: JAPN 302 and JAPN 312 or equivalent as
determined by instructor.
Contrastive analysis of phonological, morphological, syntactic
and discourse aspects of English and Japanese. Conducted in
Japanese with some readings in English.
Letter grade only for Japanese majors.

463./563. Acquisition of Japanese as a Second/Foreign
Language: Theory and Practice (3)
Prerequisites: LING 101 or LING 170 or JAPN 461; together with
JAPN 302 and JAPN 312, or Placement Test for JAPN 302 and
312.
Theoretical and practical background of language acquisition
of Japanese as a second/foreign language. Aims at building
knowledge of current research and its pedagogical implications.
Conducted in Japanese with some readings in English.
Letter grade only for Japanese majors.

471. Readings in Modern and Contemporary Japanese
Literature (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as
determined by instructor.
Readings of representative works of modern and contemporary
Japanese literature including short stories, novellas, diaries,
memoirs, poetry, and excerpts from novels and plays. Taught in
Japanese.
Letter grade only for Japanese majors.

481./581. Principles and Practice of Teaching Japanese
(3)
Prerequisites: JAPN 302 and JAPN 312, and at least one 400-level
course or equivalent as determined by the instructor.
Introduces Japanese language pedagogy in the U.S. with
principles of second language acquisition, and explores linguistic/
pedagogical/sociocultural issues. Conducted in Japanese with
some readings in English.
Letter grade only for Japanese majors.

482/582. Pedagogical Grammar (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
This course analyzes Japanese grammar from a pedagogical
perspective.
Students will analyze specific areas of phonology and syntax.
Conducted entirely in Japanese.
Letter grade only (A-F) for Japanese majors. Both grading options
for non-majors

483/583. Curriculum and Materials Development (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as
determined by the instructor.
This course introduces the principles and practical application
of curriculum design and instructional material development for
advanced Japanese courses. Conducted in Japanese with some
readings in English.
Letter grade only (A-F) for Japanese majors. Both grading options
for non-majors.

490. Selected Topics in Japanese (3)
Prerequisite: Consent of instructor.
Select topics related to advanced Japanese study.

May be repeated to a maximum of 6 units with different topics. Topics
announced in the Schedule of Classes.

492./592. Japanese Internship (3-6)
Prerequisites: Consent of instructor; completion of a minimum of 15
upper division units required for the major in Japanese.
Independent study under the direction of faculty mentor.
Credit/No Credit grading only.

497. Directed Studies (1-6)
Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member.

GRADUATE LEVEL

521./421. Selected Readings/Writing in Japanese (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Readings from a selection of contemporary materials including literary
works, magazines, newspapers, instructional and technical materials.
Letter grade only (A-F).

522./422. Technical Japanese (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Development of receptive and productive skills using authentic
materials drawn from business, humanities, sciences, and others that
will be selected according to students’ interest.
(Lecture) Letter grade only (A-F).

551./451. Japanese Civilization (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Introduction and exploration of characteristic features of Japanese
civilization and culture through studying selected topics and themes in
fields such as arts, humanities, sciences, and social sciences.
Conducted in Japanese.
Letter grade only (A-F).

561./461. The Structure of the Japanese Language (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor.
Introduction to phonology, morphology, syntax, semantics and
discourse of modern Japanese. Conducted in Japanese with some
readings in English.
Letter grade only (A-F).

562./462. Contrastive Analysis of English and Japanese (3)
Prerequisites: JAPN 302 and JAPN 312 or equivalent as determined by
instructor.
Contrastive analysis of phonological, morphological, syntactic
discourse aspects of English and Japanese. Conducted in Japanese
with some readings in English.
Letter grade only (A-F).

563./463. Acquisition of Japanese as a Second/Foreign
Language: Theory and Practice (3)
Prerequisites: LING 101 or LING 170 or JAPN 461, together with
JAPN 302 and JAPN 312, or Placement Test.
Theoretical and practical background of language acquisition
of Japanese as a second/foreign language. Aims at building
knowledge of current research and its pedagogical implications. Conducted in
Japanese with some readings in English.
Letter grade only (A-F).

581./481. Principles and Practice of Teaching Japanese (3)
Prerequisites: JAPN 302 and JAPN 312, and at least one 400-level
course or equivalent as determined by the instructor.
Introduces Japanese language pedagogy in the U.S. with principles
of second language acquisition, and explores linguistic/pedagogical/
sociocultural issues. Conducted in Japanese with some readings in
English.
Letter grade only (A-F).
582/482. Pedagogical Grammar (3)
Prerequisites: JAPN 302 and JAPN 312, or consent of instructor
This course analyzes Japanese grammar from a pedagogical perspective.
Students will analyze specific areas of phonology and syntax.
Conducted entirely in Japanese.
Letter grade only (A-F).

583/483. Curriculum and Materials Development (3)
Prerequisites: JAPN 302 and JAPN 312, or equivalent as determined by the instructor.
This course introduces the principles and practical application of curriculum design and instructional material development for advanced Japanese courses. Conducted in Japanese with some readings in English.
Letter grade only (A-F).

592./492. Japanese Internship (3-6)
Prerequisites: Consent of instructor; completion of a minimum of 15 upper division units required for the major in Japanese.
Independent study under the direction of a faculty mentor.
Credit/No Credit grading only.

681. Practicum (3)
Prerequisites: Two of the following three courses (JAPN 463/ JAPN 563, JAPN 481/ JAPN 581, JAPN 483/JAPN 583) or consent of instructor
Independent study under the direction of a faculty mentor.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

695. Directed Readings (1-6)
Prerequisites: Consent of graduate advisor.
Readings in Japanese on an individual basis.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

697. Directed Research (1-6)
Prerequisites: Consent of graduate advisor.
Research in Japanese on an individual basis.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.
JEWISH STUDIES
College of Liberal Arts

Director: Jeffrey Blutinger
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Faculty: Houri Berberian (History), Jeffrey Blutinger (History), Carl Fisher (Comparative Literature and Classics), Ali Igmen (History), Arlene Lazarowitz (History), David Stewart (Religious Studies)

Bachelor of Arts in Modern Jewish Studies

The Bachelor of Arts in Modern Jewish Studies is an interdisciplinary major that consists of courses in a variety of disciplines. Students will gain an understanding of Jewish civilizations, as the result of interactions of Jewish culture, history, and religion. Students will explore the constants and diversity of the Jewish experience in different eras and geographical settings, and will study and grapple with Jewish beliefs and texts. Students must demonstrate a Novice-midlevel proficiency in Hebrew (as defined by the American Council for the Teaching of Foreign Languages guidelines), either by successfully completing a semester of beginning Hebrew (HEBW 101A or HEBW 101B), a semester of Biblical Hebrew (RST 318 or RST 319), or by passing a language test arranged by the Director of the program.

Requirements (40 units minimum)

Core (30 units)

Take the following course:
* HIST 141 Jewish Civilization (3)
  Prerequisites/Corequisites: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

*Culture and Society (6 units):
  CWL 342 and 344.

*History area (9 units) chosen from the following:
  HIST 304, HIST 344, HIST 345, HIST 393, HIST 432, HIST 434, HIST 470.

*Religion and Thought (9 units) chosen from the following:

*Capstone Course (3 units):
  To be determined by Program Advisor.

*Electives (10 units):
  GEOG 309, POSC 367, HEBW 101A or HEBW 101B, HEBW 210, or courses listed above in excess of core requirements or other courses as determined by advisor.

Minor in Jewish Studies

The Minor in Jewish Studies consists of a minimum of 18 units. Jewish Studies encourages undergraduate students to acquire the academic breadth and depth to comprehend the major issues, themes, and concepts of a culture and heritage that has had a distinct impact on world civilization. The interdisciplinary minor consists of courses in a variety of disciplines, including literature, history, religion, geography, Hebrew language, and politics. Students will expand their understanding of the broader dynamics of the Jewish experience through different eras and geographic settings, both in Israel and the Diaspora.

Requirements

1. Required core course:
   HIST 141 Jewish Civilization (3)
   Prerequisites/Corequisites: One GE Foundation course and ENGL 100 or GE Composition (Area A1).

2. Culture and Society (3 units):
   CWL 342, CWL 344.

3. History area (3 units):
   HIST 304, HIST 344, HIST 345, HIST 393, HIST 432, HIST 470.

4. Religion and Thought (3 units):

5. The remaining six units to complete the minor may be satisfied through any of the courses listed above, or any of the following: GEOG 309, POSC 367, HEBW 101A, HEBW 101B or HEBW 210.

6. In the event that no course is available to satisfy a requirement of the minor, the missing course or courses may be substituted through a directed study, as determined by the advisor.

Hebrew Courses (HEBW)

101A. Fundamentals of Hebrew (4)
Prerequisite/Corequisite: Any Foundation course.
Designed for non-native speakers, introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.
For non-native speakers only. Not open to heritage speakers or native speakers of Hebrew.

101B. Fundamentals of Hebrew (4)
Prerequisite/Corequisite: HEBW 101A.
Continuation of HEBW 101A. Introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels. For non-native speakers only. Not open to heritage speakers or native speakers of Hebrew.

210. Introduction to Midrash (3)
Prerequisite: Completion of one GE Foundation Course and ENGL 100 or equivalent.
An introduction to Rabbinic literature interpreting the Hebrew Bible and its development, with an emphasis on analyzing sources and exploring how the tradition derived meaning from them.
Letter grade or credit/no credit
Department Chair: Emma Daugherty
Office: Liberal Arts 4 (LA4) Room 106
Telephone: (562) 985-4981 FAX: (562) 985-5300
Website: http://www.cla.csulb.edu/departments/journalism/
Faculty: Lee Brown (Emeritus), Christopher Burnett, Emma Daugherty, Daniel Garvey (Emeritus), Jennifer Fleming, Heloiza Herscovitz, Christopher Karadjov, Wayne Kelly (Emeritus), Gary Metzker, Danny Paskin, Nesha Saucer, Gwen Shaffer, John Shadrer, Barbara Kingsley-Wilson, Whitney Mandel
Administrative Support Coordinator: Carolyn LaPalio
Administrative Support Assistant: Teri LeGault
Technology Coordinator: Dan Olsen
Academic Advisors: Jennifer Fleming, Danny Paskin
Librarian: Carol Perruso

Career Possibilities
Journalist * Public Relations Specialist * Editor * Online Journalist * Marketing Communications Professional * Multimedia Journalist * Publicist * Editor * Photojournalist * Reporter * Television Producer * Sports Writer * Designer * Photographer * Special Events Coordinator * Newscaster * Copy Writer * Critic * Technical Writer * Proofreader * Communications Manager * Public Information Officer * Magazine Writer * Radio Announcer (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Journalism and Mass Communication offers undergraduate programs that prepare students for careers in journalism and public relations. Students take courses that provide both a strong theoretical foundation and real-life, hands-on training in the skills they need to pursue careers in communications. Journalism graduates become reporters, editors, bloggers, broadcasters, designers and managers at media organizations and are trained in multimedia storytelling and communicating across multiple platforms, including newspapers, magazines, online media, social media, radio, and television.

Public relations graduates become public relations professionals in corporations, nonprofit organizations, and communication firms and specialize in employee relations, media relations, community relations, multicultural relations, consumer relations, marketing communications, public affairs, and special event management. In their classes, students learn how to use both traditional and digital forms of media, including social media, to communicate with target audiences. Advanced students become skilled in strategic planning and campaign development.

Throughout their coursework, journalism and public relations students have the opportunity to work as staff writers, editors, designers and photographers at campus media affiliated with the department: the Daily 49er, the campus newspaper; DIG Magazine, the campus monthly magazine; the online editions of both the Daily 49er and DIG Magazine; K-Beach Radio, the campus radio station; and College Beat TV. Students also serve as account supervisors, creative directors, art directors, copywriters, event planners, and social media managers on the Bateman Case Study Competition team. The Bateman Case Study Competition is the prestigious national collegiate contest for public relations students. All students working with department-affiliated media and the Bateman team work closely with department faculty members who serve as advisors for each group.

The department is home to four active student organizations: National Association of Black Journalists, National Association of Hispanic Journalists, Public Relations Student Society of America, and Society of Professional Journalists. The department also sponsors annual events for students: the Student Success Orientation, Journalism & Public Relations Day, and the Journalism and Public Relations Awards Ceremony and Reception.

All students are required to complete an internship in journalism or public relations either on or off campus. The department maintains a comprehensive directory of placements, and internship opportunities are abundant in Southern California, one of the nation’s largest media markets. All majors and minors are strongly encouraged to meet with one of the department’s two academic advisors once a semester to plan their coursework.

Bachelor of Arts in Journalism
(120 units)

General Requirements
The major consists of 48 units. Majors can pick between two pathways: a traditional journalism pathway or a specialization in public relations. By default, students are placed in the journalism program. Students wishing to pursue the specialization in public relations should meet with a department advisor to officially declare it. All majors are strongly encouraged to pursue a minor in a discipline outside of journalism or public relations.

Bachelor of Arts in Journalism

Journalism Pathway Requirements

Lower Division:
Take all of the following courses:
JOUR 110 Mass Media and Society (3)
Prerequisite/Corequisite: None.
JOUR 120 News Writing and Ethics (3)
* "C" or better
Prerequisite: None
JOUR 240 Multimedia Storytelling (3)
* "C" or better
Prerequisite/Corequisite: JOUR 120.
Upper Division:
Take all of the following courses:

- JOUR 311 News Reporting and Ethics (3)
  * "C" or better
  Prerequisites: JOUR 120 with a grade of "C" or better.

- JOUR 340 Advanced Multimedia Journalism (3)
  Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better.

- JOUR 418 Journalism: Past, Present, and Future (3)
  Prerequisites: Upper division standing and GE Foundation requirements.

- JOUR 430 Communication Law and Policy (3)
  Prerequisite: Upper division standing.

- JOUR 498 Internship (3)
  Prerequisite: Senior standing or consent of instructor.

Upper Division:
Take one course from the following:

* "C" or better

- JOUR 305 Media Design (3)
  Prerequisite: JOUR 120 with a grade of "C" or better.

- JOUR 321 Broadcast Writing and Reporting (3)
  Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better.

- JOUR 331 Editing for Print and Online (3)
  Prerequisite: JOUR 120 with a grade of "C" or better.

Choose six units from the following:

- JOUR 405 Advanced Media Design (3)
  Prerequisites: JOUR 120 and JOUR 305 with a grade of "C" or better.

- JOUR 420 In-Depth Reporting for the Daily 49er (3)
  Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.

- JOUR 480 Magazine Writing and Editing (3)
  Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.

- JOUR 482 Television News Production and Performance (3)
  Prerequisite: JOUR 120 and JOUR 321 with a grade of "C" or better.

- JOUR 495 Enterprise Reporting in Diverse Communities (3)
  Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.

Choose five courses from the following:

- JOUR 104, JOUR 160, JOUR 240, JOUR 270, JOUR 300, JOUR 310, JOUR 312, JOUR 315, JOUR 316, JOUR 318, JOUR 360, JOUR 374, JOUR 375, JOUR 380, JOUR 382, JOUR 412, JOUR 415, JOUR 431, JOUR 440, JOUR 470, JOUR 471, JOUR 478, JOUR 485, JOUR 490, JOUR 494 and JOUR 499

Minor in Journalism
Requirements
Take the following:

- JOUR 110 Mass Media and Society (3)
  Prerequisite/Corequisite: None.

- JOUR 120 News Writing and Ethics (3)
  * "C" or better
  Prerequisite: None

- JOUR 270 Principles of Public Relations (3)
  * "C" or better
  Prerequisite: None.

Minor in Public Relations
The Minor in Public Relations is available to any CSULB student, except for those who are majors in journalism. A minimum of 18 units is required. The minor is composed of three required core courses (9 units) and three elective courses (9 units).
Students must take the following:
JOUR 120. News Writing and Ethics (3)
JOUR 270. Principles of Public Relations (3)
JOUR 478. Public Relations Case Studies (3)

Students must take three courses (9 units) from the following:
JOUR 104. Social Media Communication (3)
JOUR 305. Media Design (3)
JOUR 374. Written Communication for Public Relations (3)
JOUR 375. Strategic Communication for Public Relations (3)
JOUR 470. The Digital Public Relations Toolbox (3)
JOUR 471. Public Relations Management and Campaigns (3)
JOUR 485. Public Relations Agency (3)
JOUR 494. Research Methods (3)
JOUR 498. Internship (3)

JOUR 101. English for Media Writers (1)
Intensive review of grammar, word usage, spelling, and the principles of clear and concise writing for student writers who seek careers in the mass media.
Letter grade only (A-F). (1 hour skills.)

104. Social Media Communication (3)
Students examine how social media (Facebook, Twitter and others) influence interpersonal and professional communications. The course is grounded in the history, development and theories of social media, while providing students opportunities to analyze personal use of social media.

110. Mass Media and Society (3)
Prerequisite/Corequisite: One GE Foundation.
Origins, development and contemporary role of newspapers, magazines, radio, television, books, new media and films, and such related fields as advertising and public relations.
Letter grade only (A-F). (Lecture/Discussion 3 hours)

120. News Writing and Ethics (3)
This introductory course focuses on the fundamentals of news writing. Students develop news judgment, and they practice writing different types of news stories, adhering to AP style and meeting deadlines. Legal and ethical issues in journalism are also addressed.
Letter grade only (A-F).

160. Understanding News Media (3)
Prerequisite: GE Foundation requirements.
Develop critical thinking through the examination of news media in the United States including print, television and online news sources, news narratives, journalistic methodologies, ownership patterns, value systems, thought processes, effects and trends.
Not open for credit to students with credit in JOUR 220.

240. Multimedia Storytelling (3)
Prerequisite or Corequisite: JOUR 120
This course is designed to develop basic skills in multimedia storytelling. Techniques and tools used in creating blogs, photo slideshows and podcasts as well as shooting and editing video will be covered. Legal and ethical considerations will also be examined.
Letter grade only (A-F).

270. Principles of Public Relations (3)
Students learn the theories, concepts, history and terminology of public relations. The stages of the public relations practice—research, planning, communication and evaluation—are studied. Diversity, ethics, social responsibility and global perspectives in public relations are also examined.
Not open for credit to students with credit in JOUR 370.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Photojournalism (3)
Prerequisite: None.
Techniques of photojournalism for newspapers, magazines, corporate communications, new media and public relations.
Course covers types of photos needed for all aspects of editorial photography, including lighting, use of filters, working with subjects and the photo picture page.

305. Media Design (3)
Prerequisite: JOUR 120 with a grade of "C" or better.
Gives students experience in design of printed and online materials. Examines theories, principles and techniques of contemporary media design. Covers historical roots of media design and acquaints students with use of photographs, illustrations, graphs, type and color in visual communication.

310. Writing for the Daily 49er (3)
Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better, or consent of instructor.
Students cover a beat and/or write general assignment stories as well as produce multimedia packages for the Daily 49er newspaper and website.

311. News Reporting and Ethics (3)
Prerequisites: JOUR 120 with a grade of "C" or better.
This course covers newsgathering and writing for newspapers, magazines and websites. Students will conduct interviews, and write both hard news and feature stories—with an emphasis on covering government and public affairs. The course also focuses on journalism ethics.
Letter grade only (A-F).

312. Global News Media (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper-division standing.
Analysis of world’s news media with an emphasis on structure, ownership, social and political roles and the degree of government pressure and control. Particular attention paid to economic, political and mass media globalization and its effects on developing countries.
Letter grade only (A-F). Course fee may be required.

315. Literary Journalism (3)
Prerequisites: Upper division status and completion of GE Foundation; Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Study and practice of literary reportage. Includes analysis of styles and methods employed by British pioneers, contemporary American, European and Latin American journalists. Discussion and application of ethical guidelines that keep literary journalists from crossing the line between fact and fiction.
316. Freelance and Feature Writing (3)
Prerequisites: Upper division status and completion of GE Foundation; Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Students learn to develop story ideas and report and write feature stories. Students also learn how to successfully pitch and sell stories to publications, work with editors and establish a career as a freelance writer.

318. Sports Journalism (3)
Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better.

Students explore the state and practice of sports journalism. Students learn the history of sports reporting, and they participate in all aspects of the sports journalism process from reporting and interviewing to writing, editing and producing.

321. Broadcast News Writing and Reporting (3)
Prerequisites: JOUR 120 and JOUR 240 with a grade of "C" or better.

Students learn and practice television and radio news writing and reporting. Students become familiar with script formats, and they create audio and video stories on deadline. While the focus is on television, the skills developed are applicable to other platforms.

331. Editing for Print and Online (3)
Prerequisite: JOUR 120 with a grade of "C" or better.

Students learn editing and proofreading skills for print and online media. Students also gain practice in assigning and assessing stories, fact-checking, determining a story lineup and working with writers.

340. Advanced Multimedia Journalism (3)
Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better.

Students learn the theory and practice of creating cutting edge digital content with a journalism emphasis. Instruction in social media, coding/HTML, web design, animations and other trends and topics in digital journalism could be included.

360. Culture and Politics of the Internet (3)
Prerequisites: Upper division standing and GE Foundation requirements.

This interdisciplinary course is focused on the culture and politics of the Internet. It introduces students to the regulations governing both broadband and mobile Internet services, as well as explores how these policies are shaped.

374. Written Communication for Public Relations (3)
Prerequisites: JOUR 120 and JOUR 270 with a grade of "C" or better.

Students learn to communicate with specific audiences. Students write and edit news releases, feature stories, biographical profiles, fact sheets, media alerts, pitch letters, blogs and other materials. Ethical and legal issues in public relations are also addressed.

Letter grade only (A-F).

375. Strategic Communication for Public Relations (3)
Prerequisite: JOUR 120 and JOUR 270 with a grade of "C" or better.

Students strategize and create programs using theoretical, ethical and practical models of public relations. Students develop backgrounder, position papers, proposals, speeches, crisis plans and other materials in response to an analysis of audience demographics, psychographics and cultural perspectives.

Letter grade only (A-F).

380. Advanced Photojournalism (3)
Prerequisite: JOUR 120 with a grade of "C" or better, JOUR 300. This course provides an in-depth study of photojournalism with an emphasis on creating story ideas, essays and features with photos. Students shoot and edit photos. They also create photo layouts for newspapers, magazines and online media.

382. Radio News Production (3)
Prerequisite: Upper division standing.

Students report, write and edit news and feature stories for radio. Special emphasis is on radio production and management techniques.

405. Advanced Media Design (3)
Prerequisites: JOUR 120 with a grade of "C" or better, JOUR 305. Students learn advanced skills in media design, including typography, color, art and white space. They further develop design skills for media outlets.

May be repeated to a maximum of 6 units in different semesters.

412. Theories of Mass Communication (3)

Contemporary theories of mass communication. An overview of development of communication theory as it relates to mass media. Evaluation of theories of communication process through analysis of original research upon which theories were founded. Source, message and audience effects of communication process.

Letter grade only (A-F).

415. Gender, Class, and Ethnicity in the Media (3)
Prerequisite(s): Upper division standing and GE Foundation requirements.

Students examine the relationship between media and the marginalization, misrepresentation and discrimination of individuals and groups in the United States. Framing, symbolic representation, critical/cultural and other theories will be used to identify and challenge depictions of gender, race, and ethnicity.

418. Journalism: Past, Present, and Future (3)
Prerequisite(s): Upper division standing and GE Foundation requirements.

This course brings history into the present by exploring journalism in the age of conglomeration, digitization and mobile communication. It provides an overview of major figures, technologies, paradigms and events that have shaped the practice of journalism in the United States.

420. In-Depth Reporting for the Daily 49er (3)
Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.

Students produce in-depth profiles and enterprise and investigative stories. Work is published in the Daily 49er in print and/or online.

May be repeated to a maximum of 6 units in different semesters.

422. Senior Media Production (1)

Advanced work on Forty-Niner Publications as editors. Credit/No Credit grading only. May be repeated for a maximum of 3 units in different semesters with consent of instructor.

430. Communication Law and Policy (3)

Advances in the study of communication law with an emphasis on constitutional guarantees of a free press. Students analyze how laws are applied in contemporary situations and learn to make distinctions between ethical and legal issues.
431. Mass Media Ethics (3)
Prerequisite: Upper division standing and GE Foundation requirements.
This course focuses on ethical codes and value systems used in mass media. Students explore philosophical foundations of moral theory and various approaches to ethical decision making for journalists, public relations professionals and other media practitioners.

440. Trends in Online Media (3)
Prerequisite: JOUR 120 and JOUR 240 with a grade of "C" or better.
Students learn the theory and practice of state-of-the-art digital content for journalism and public relations. Topics may include viral marketing, mobile media applications, data visualizations, web animations and other new applications.

470. The Digital Public Relations Toolbox (3)
Prerequisite: JOUR 120 and JOUR 270 with a grade of "C" or better.
This course covers challenges and opportunities presented to public relations practitioners in the digital age, how social media are changing the communication landscape, and best practices in digital public relations including social media strategies, search engine optimization and media monitoring.

471. Public Relations Management and Campaigns (3)
Prerequisites: JOUR 374 or JOUR 375 with a grade of "C" or better.
Students work in agency situations to develop a business proposal for clients involving formal written plans and oral presentations. Students serve as consultants and develop programs for organizations.

478. Public Relations Case Studies (3)
Prerequisites: JOUR 120 and JOUR 270 with a grade of "C" or better.
Students analyze case studies to explore decision-making processes in various areas of public relations, including employee relations, community relations, multicultural relations, investor relations, media relations, marketing communications and crisis communications. Strategic planning, critical thinking and ethical decision-making are emphasized.

480. Magazine Writing and Editing (3)
Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.
Students serve as the staff editors and writers for the campus magazine, Dig, and its website, and the department alumni publication, Beach Byline. Activities include pitching, assigning, writing, editing, working with design/designers and proofreading stories for the publications.

482. Television News Production and Performance (3)
Prerequisite: JOUR 120 and JOUR 321 with a grade of "C" or better.
Students produce television news reports, segments and programs in this hands-on course. Students also gain experience in a variety of television news production roles, including anchor, writer, reporter, producer and researcher.

485. Public Relations Agency (3)
Prerequisites: JOUR 270 with a grade of "C" or better and consent of the instructor.
This course develops advanced public relations problem-solving skills. Students create strategic public relations plans and execute a comprehensive public relations program by serving as a student-run public relations agency and working with actual clients for the Bateman Case Study Competition.

490. Selected Topics in Mass Communications (1-3)
Prerequisite: JOUR 311 with a grade of "C" or better.
Topics of special interest in mass communications selected for intensive study. May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

494. Research Methods (3)
Prerequisite: Upper division standing.
Students use principles of scientific research to create, monitor and evaluate communication programs and audience metrics. Students learn about sampling, surveys, opinion polls, focus groups, content analyses, web analytics and participant observation research. Research planning, theory, design and analysis are emphasized.

495. Enterprise Reporting in Diverse Communities (3)
Prerequisite: JOUR 240 and JOUR 311 with a grade of "C" or better.
Students conceive stories and report on diverse neighborhoods throughout Long Beach. Students participate in all aspects of news production, using written words, photos, audio and video. May be repeated to a maximum of 6 units in different semesters.

498. Internship (3)
Prerequisite: Senior standing or consent of instructor.
Students gain practical journalism and/or public relations experience in professional settings. Students locate and secure their own internships. All internships must be approved by the instructor. The class includes seminars and workshops to facilitate professional development and career building. Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters.

499. Special Projects (1-3)
Prerequisite: JOUR 311, with a grade of "C" or better. Journalism Major only.
Advance approval of instructor; (permit required to enroll). Research in the field of journalism in broadcast, newspaper, magazine, public relations, advertising, new media or other related fields. Students must meet once a week with instructor. May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).
Department Chair: Sharon R. Guthrie
Department Office: Health and Human Services (HHS) 2, Rm. 105
Telephone: (562) 985-4051
Website: http://www.csulb.edu/colleges/chhs/departments/kin/
Faculty: James Becker, D. Margaret Costa, Jill A. Crussemeyer, James A. Davis, Keith W. Freesemann, Christine Galvan, Sharon R. Guthrie, Grant M. Hill, Kerrie Kauer, Jeff L. Kress, Barry W. Lavay, Mikiko Nakajima, Clayre K. Petray, Ralph Rozeneck, Jan M. Schroeder, Tiffanye Vargas, Emyr W. Williams, Alison M. Wrynn, Will Wu, Douglas E. Young

Department Coordinator: Stacia Ticer

Career Possibilities

Allied Health Professions Programs: Certified Athletic Trainer • Educator/Professor • Researcher • Certified Kinesiotherapist

Exercise Science and Fitness: Strength and Conditioning Coach • Educator/Professor • Researcher • Exercise Technician • Fitness Specialist • Exercise Physiologist • Exercise Specialist

Physical Education Teacher Education (PETE): Physical Educator • Adapted Physical Education Specialist • Sport Coach • High School Athletic Administrator • Educator/Professor • Researcher

Sport Studies: Sport Coach • Educator/Professor • Researcher • Mental Training Consultant/Sport Psychologist • Sport Manager • College Athletic Administrator

(For more information, see www.careers.csulb.edu.) Various entry-level trainee positions are available for graduates, regardless of academic discipline.

Introduction

The mission of the Department of Kinesiology is to facilitate wellness among individuals through the study and application of human movement principles across the lifespan and through the management of and participation in physical activity, exercise, and sport. The Department serves the needs of students completing majors in other fields who find that certain aspects of kinesiology are important to professional objectives and personal interests.

Programs at a Glance

• Bachelor of Arts in Kinesiology in two options
• Bachelor of Science in Kinesiology in three options
• Bachelor of Science in Athletic Training
• Master of Arts in Kinesiology in five options
• Master of Science in Kinesiology in four options
• Single Subject Teaching Credential in Physical Education (K-12)
• Single Subject Teaching Authorization in Adapted Physical Education (K-12)
• Wilderness Studies Certificate

In addition to the degree requirements for the Bachelor of Arts in Kinesiology and the Bachelor of Science in Kinesiology, the Major must meet the following Department policies and requirements for University graduation:

1. Each major course and prerequisite course must be completed with a grade of “C” or better. A course in which a grade lower than a “C” is received must be retaken and successfully completed prior to enrolling in any other course for which it is a prerequisite;
2. Upper-division courses may not be waived by substitution or examination without Department petition and approval;
3. Department approval.

Undergraduate Programs

Bachelor of Arts in Kinesiology

This program has been discontinued.

Single Subject Teaching Credential in Physical Education (K-12)

In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Physical Education teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

Adapted Physical Education Specialist Teaching Authorization

This program is designed for students interested in the administration and implementation of physical activity programs for persons with disabilities in K-12 schools. Completion of this program results in the Adapted Physical Education added authorization for holders of a current Single Subject, Multiple Subject, or Education Specialist basic teaching credential.

Requirements

1. Bachelor's degree;
2. Concurrent enrollment in or completion of the Single Subject Physical Education teaching credential program or the Multiple Subject or Education Specialist teaching credential program;
3. Take the following courses:
   - KIN 320 Adapted Physical Education (3)
     Prerequisites: BIOL 208.
   - KIN 387 Physical Activities for the Disabled (3)
     Prerequisites: KIN 320.
   - KIN 388 Program Planning and Instruction in Adapted Physical Education (3)
     Prerequisites: KIN 387.
KIN 427 Physical and Motor Assessment (3)
Prerequisites: KIN 315 or equivalent and KIN 320 or equivalent; upper-division undergraduate or graduate standing; consent of instructor required for graduate students prior to registration.

KIN 489A Field Work in Physical Activity Settings (3)
Prerequisites: Completion of Kinesiology course requirements for the major option in which field work is taken.

EDSP 350 Education of Exceptional Individuals (3)
Prerequisites: None.

Select two courses from the following:
ED P 405; EDSP 577, EDSP 578; KIN 526; ASLD 101.

**Bachelor of Science in Kinesiology**

Students pursuing the Bachelor of Science degree in Kinesiology must complete the course requirements and the physical fitness proficiency of each Option. Students may select their area of specialization from the options.

**Option in Exercise Science (120 units)**

**Admission Under Impaction**

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

**Requirements**

**Core:**

Take all of the following courses:

KIN 201 Introduction to Kinesiology (3)
Prerequisites: None

KIN 300 Biomechanics of Human Movement (3)
Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.

KIN 301 Exercise Physiology (3)
Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.

KIN 312 Motor Control and Learning (3)
Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201 applies to Kinesiology majors.

KIN 332 Sociocultural Dimensions of Sport/Human Movement (3)
Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.

**Lower Division:**

Take all of the following courses:

MATH 113 (or higher) Precalculus Algebra (3)
* C or better
Prerequisites: Appropriate ELM score, ELM exemption or MAPB11.

CHEM 111A General Chemistry (5)
* C or better
Prerequisites: A passing score on the Chemistry Placement Examination. Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

**KIN 263 Techniques in Physical Fitness (2)**
Prerequisites: None.

BIOL 207 Human Physiology (4)
* C or better
Prerequisites: GE Foundation requirements.

BIOL 208 Human Anatomy (4)
* C or better
Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 120 or MATH 122.

PHYS 100A General Physics (4)
* C or better
Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 120 or MATH 122.

PHYS 100B General Physics (4)
Prerequisites: PHYS 100A.

PSY 100 General Psychology (3)
* C or better
Prerequisites/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

**Upper Division:**

Take all of the following courses:

KIN 405 Cardiopulmonary Aspects of Health Related Exercise Programs (4)
Prerequisites: KIN 210 or current First Aid and CPR certificates, KIN 301.

KIN 441 Applied Biomechanics: Lifting and Work Capacity (3)
Prerequisites: KIN 300 or equivalent (Trigonometry and PHYS 100A recommended).

Take one of the following courses:

KIN 430 Motor Control Principles and Theory (3)
Prerequisites: KIN 312 or equivalent.

KIN 431 Scientific Foundations of Locomotion (3)
Prerequisites: KIN 300, KIN 312.

Take one of the following courses:

KIN 483 Statistics in Human Movement Science (3)
Prerequisites: KIN 300, KIN 301, KIN 312.

BIOL 260 Biostatistics (3)
Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

Take three of the following courses:

KIN 339, KIN 462, KIN 465, KIN 466, KIN 432.

Take 12 units (minimum 3 units from KIN) of elective courses from the following:

BIOL 200, BIOL 201, BIOL 211, BIOL 212, BIOL 213 (BIO 111 and BIO 111L, BIOL 212 and BIOL 212L, BIOL 213 and BIOL 213L if courses taken prior to this catalog year), BIOL 301, BIOL 311, BIOL 340, BIOL 341, BIOL 342 and BIOL 342L, BIOL 345, BIOL 441, BIOL 443, BIOL 445; CHEM 227, CHEM 448; NUTR 132, NUTR 331, NUTR 439; H SC 150; KIN 315, KIN 320, KIN 339*, KIN 364, KIN 367, KIN 430*, KIN 431*, KIN 432*, KIN 462*, KIN 465*, KIN 466*, KIN 494, KIN 495, KIN 497; PSY 327, PSY 370.

A fieldwork, field experience, or internship requires current certification in First Aid (American Red Cross: Community First Aid & Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and
Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant & Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant & Child CPR or ACLS Provider or equivalent) prior to enrollment.

Option in Fitness (120 units)

Admission Under Impaction
Fitness is an impacted option. Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements
Core Courses:
Take all of the following courses:
- KIN 201 Introduction to Kinesiology (3)
  Prerequisites: None
- KIN 300 Biomechanics of Human Movement (3)
  Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.
  Corequisite(s): KIN 201.
- KIN 301 Exercise Physiology (3)
  Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.
  Corequisite: KIN 201
- KIN 312 Motor Control and Learning (3)
  Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.
  Corequisite(s): KIN 201 applies to Kinesiology majors.
- KIN 332 Sociocultural Dimensions of Sport/Human Movement (3)
  Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.

Lower Division:
Take one of the following courses:
- STAT 108 Statistics for Everyday Life (3)
  * C or better
  Prerequisites: None
- PSY 110 Introductory Statistics (4)
  * C or better
  Prerequisites: Eligible to take a General Education Mathematics course.

Take all of the following courses:
- NUTR 132 Introductory Nutrition (3)
  * C or better
  Prerequisites/Corequisites: One Foundation course.
- PSY 100 General Psychology (3)
  * C or better
  Prerequisites/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following: AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.
- KIN 218 Professional Development in the Fitness Industry (2)
  Prerequisites: None.
- KIN 263 Techniques of Physical Fitness (2)
  Prerequisites: None.
- BIOL 207 Human Physiology (4)
  * C or better
  Prerequisites: GE Foundation requirements.
- BIOL 208 Human Anatomy (4)
  * C or better
  Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

Physical Activity Courses:
Take a minimum of 7 units selected from different classes chosen from the following:

Upper Division:
- KIN 339 Psychology of Sport Behavior and Athletic Performance (3)
  Prerequisites: GE Foundation requirements, PSY 100, and upper-division standing.
- KIN 363 Theory and Analysis of Group Fitness Instruction (2)
  Prerequisites: KIN 263.
- KIN 364 Fitness for Adult Populations with Unique Health Considerations (3)
  Prerequisites: KIN 311.
- KIN 367 Fitness and the Aging Process (3)
  Prerequisites: Fitness Option: KIN 218 and KIN 301; KIN Exercise Science Option: KIN 301; or consent of instructor.
- KIN 368 Resistance Training for Fitness (3)
  Prerequisites: KIN 300 and KIN 301.
  Prerequisites: Open to Fitness Option students in Kinesiology or consent of instructor.
- KIN 467 Fundamentals of Personal Training (3)
  Prerequisites: KIN 368. Open to Fitness Option students in Kinesiology only, or consent of instructor.
- KIN 468 Nutrition for Exercise and Performance (3)
  Prerequisites: NUTR 132, KIN 301.
- KIN 469 Fitness Management (3)
  Prerequisites: KIN 363, KIN 368.
- KIN 478 Psychological Aspects of Exercise and Fitness (3)
  Prerequisites: KIN 339. Open to Fitness and Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
- KIN 489D Fieldwork in Fitness (3)
  Prerequisites: Completion of Kinesiology course requirement for the major option in which the field work is taken. KIN 467, completion of 200 hours in a corporate fitness setting, 200 hours in a traditional fitness setting and 100 hours of approved fitness experience.

Take six units of elective courses from the following:
- A fieldwork, field experience, or internship requires current certification in First Aid (American Red Cross; Community First Aid & Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent).
and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant & Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant & Child CPR or ACLS Provider or equivalent) prior to enrollment.

Option in Sport Psychology and Leadership (120 units)

This option has two concentrations - one in Sport Psychology and one in Leadership. The course work for both concentrations is the same except for the activity courses and the elective courses. The option is designed for students interested in careers in: 1) sport psychology; and 2) coaching outside the public school system (K-12), e.g., sport management/leadership; coaching professional athletes, coaching youth-sport athletes, and coaching in sport academies.

Admission Under Impaction

Sport Psychology & Leadership is an impacted option. Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements

Core:

Take all of the following courses:

KIN 201 Introduction to Kinesiology (3)
Prerequisites: None

KIN 300 Biomechanics of Human Movement (3)
Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.

KIN 301 Exercise Physiology (3)
Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite: KIN 201

KIN 312 Motor Control and Learning (3)
Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201 applies to Kinesiology majors.

KIN 332 Sociocultural Dimensions of Sport/Human Movement (3)
Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.

Lower Division:

Take all of the following courses:

BIOL 207 Human Physiology (4)
* C or better
Prerequisites: GE Foundation requirements.

BIOL 208 Human Anatomy (4)
* C or better
Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MIRC 200.

NUTR 132 Introductory Nutrition (3)
* C or better
Prerequisites/Corequisites: One Foundation course.

KIN 263 Techniques of Physical Fitness (2)

Prerequisites: None.

PSY 100 General Psychology (3)
* C or better
Prerequisites/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

STAT 108 Statistics for Everyday Life (3)
* C or better
Prerequisites: None

Take three activity units selected from the following:


Upper Division:

Take all of the following courses:

KIN 335 Historical and Cultural Foundations of Sport and Kinesiology in America (3)
Prerequisites: Upper division standing.

KIN 338 Women in Sport (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.

KIN 339 Psychology of Sport Behavior and Athletic Performance (3)
Prerequisites: GE Foundation requirements, PSY 100, and upper-division standing.

KIN 472 Applied Sport and Exercise Psychology (3)
Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

KIN 475 Psychology of Coaching (3)
Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

KIN 478 Psychological Aspects of Exercise and Fitness (3)
Prerequisites: KIN 339. Open to Fitness and Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

PSY 356 Personality (3)
Prerequisites: PSY 100.

Concentration in Sport Psychology

E elective Courses:

Select 12 units (minimum 3 units from KIN and 6 units from PSY). At least 7 units must be upper division) from the following courses:


Concentration in Leadership

E elective Courses:

Select 12 units (Minimum 3 units from KIN. At least 7 units must be upper division) from the following courses:

ANTH 353, ANTH 412; CBA 400; COMM 306, COMM 335, COMM 411; H SC 427; KIN 156, KIN 200, KIN 210, KIN 489B, KIN 497; REC 321, REC 322, REC 324, REC 340I, REC 427; PSY 351, PSY 453.
A fieldwork, field experience, or internship requires current certification in First Aid (American Red Cross: Community First Aid & Safety or Emergency Response or Workplace Training: Standard First Aid or equivalent) and Cardiopulmonary Resuscitation (American Red Cross: Adult CPR or Adult, Infant & Child CPR or CPR for the Professional Rescuer; American Heart Association: Adult CPR or Adult, Infant & Child CPR or ACLS Provider or equivalent) prior to enrollment.

This degree option has been deemed "similar" to the Transfer Model Curriculum for Kinesiology under the Student Transfer Agreement Reform Act (SB 1440-Padilla). Students who complete an approved A.A.-T or A.S.-T degree in Kinesiology at a California Community College can meet B.S. in Kinesiology: Option in Sport Psychology and Leadership (KPE_BS04) requirements with no more than 60 additional units. Contact a Kinesiology faculty advisor for assistance in program planning.

Option in Physical Education-Teacher Education (120)

The Physical Education-Teacher Education (PETE) option places emphasis on teaching public school Physical Education (PE) to students with and without disabilities in preschool through grade 12 and includes concentrations in Adapted Physical Education (APE) and Physical Education K-12 (PE K-12). Prospective students should consult with the department's Single Subject Physical Education Advisor and/or Adapted Physical Education Advisor early to plan their program.

Requirements

Core

Take all of the following courses:

- KIN 201 Introduction to Kinesiology (3)  
  Prerequisite: None
- KIN 300 Biomechanics of Human Movement (3)  
  Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better of consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.
- KIN 301 Exercise Physiology (3)  
  Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite: KIN 201
- KIN 312 Motor control and Learning (3)  
  Prerequisites: BIOL 207, BIOL 208, PSY 100 or equivalent. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201 applies to Kinesiology majors.
- KIN 332 Sociocultural Dimensions of Sport/Human Movement (3)  
  Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.

Pedagogy Core Courses

Take all of the following courses:

- BIOL 208 Human Anatomy or HHS 401 (4)  
  Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.
- BIOL 207 Human Physiology (4)  
  Prerequisites: GE Foundation requirements.
- PSY 100 General Psychology (3)  
  Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100S, ASAM 100S, CHLS 104S, ENGL 100S or ALI 150 or equivalent.
- KIN 149A Self-Defense (1)  
  Prerequisite: None
- KIN 237 Techniques and Analysis of Aquatic Skills (2)  
  Prerequisites: American Red Cross Community First Aid and CPR certification or equivalent. Open to Kinesiology majors in the Adapted Physical Education and K-12 Physical Education teacher education option only. To maintain enrollment, students must pass the swimming proficiency examination that will be administered the first week of instruction.
- KIN 250 Techniques of Basketball (1)  
  Prerequisite: None
- KIN 251 Techniques of Flag Football (1)  
  Prerequisite: None
- KIN 253 Techniques of Soccer (1)  
  Prerequisite: None
- KIN 255 Techniques of Softball (1)  
  Prerequisite: None
- KIN 257 Techniques of Volleyball (1)  
  Prerequisite: None
- KIN 261 Techniques and Analysis of Fundamental Rhythms (2)  
  Prerequisite: None
- KIN 264 Techniques of Golf (1)  
  Prerequisite: None
- KIN 265 Techniques of Gymnastics (1)  
  Prerequisite: None
- KIN 266 Techniques of Badminton (1)  
  Prerequisite: None
- KIN 267 Techniques of Tennis (1)  
  Prerequisite: None
- KIN 268 Techniques of Track and Field (1)  
  Prerequisite: None
- KIN 270 Professional Practices in Public School Physical Education (3)  
  Prerequisite: Students must meet the University GE writing course requirement. Corequisite: Community CPR/First Aid/Safety or current certification.
- KIN 315 Motor Development (3)  
  Prerequisites: BIOL 207, BIOL 208; PSY 100 or equivalent.
- KIN 320 Adapted Physical Education (3)  
  Prerequisites: BIOL 208.
- KIN 343 Techniques and Analysis of Fitness (2)  
  Prerequisite: KIN 270.
- KIN 370 Movement Theory and Practice of Elementary Physical Education (3)  
  Prerequisite: KIN 270.
- KIN 380 Principles, Organization and Management of Secondary School Physical Education (3)  
  Prerequisites: KIN 149A, KIN 237, KIN 250, KIN 251, KIN 253, KIN 255, KIN 257, KIN 261, KIN 264, KIN 265, KIN 266, KIN 267, KIN 268, KIN 270, KIN 343, KIN 370 or consent of instructor. Suggest concurrent enrollment in EDSS 330P (single subject credential course).
- KIN 460 Applied Theory and Analysis of Non-Traditional Physical Education Games and Activities (2)  
  Prerequisites: KIN 370, senior standing.

Concentration Courses
Complete one of the following two concentration areas:

Concentration in Adapted Physical Education Concentration (9 units)
Take all of the following courses:
- KIN 387 Physical Activities for the Disabled (3) Prerequisite: KIN 320.
- KIN 388 Program Planning and Instruction in Adapted Physical Education (3) Prerequisite: KIN 387.
- KIN 427 Physical and Motor Assessment (3) Prerequisite: KIN 315 or equivalent and KIN 320 or equivalent; upper-division undergraduate or graduate standing; consent of instructor required for graduate students prior to registration.

Concentration in k-12 Physical Education (9 units)
Take all of the following courses:
- KIN 457 Applied Theory of Teaching Team Sports (3) Prerequisites: KIN 250, KIN 251, KIN 253, KIN 255, KIN 257, KIN 270 or consent of instructor; senior standing.
- KIN 461 Applied Theory of Teaching Individual and Dual Sports (3) Prerequisites: KIN 237, KIN 264, KIN 265, KIN 266, KIN 267, KIN 268, KIN 270, or consent of instructor; senior standing.
- KIN 477 Measurement and Curriculum in Physical Education (3). Prerequisite: KIN 343 and KIN 370 or consent of instructor.

Bachelor of Science in Athletic Training (120 units)

The Department of Kinesiology offers the Bachelor of Science in Athletic Training degree through the Athletic Training Program (AT Program). The AT Program is nationally accredited by the Commission on the Accreditation of Athletic Training Education (CAATE). Athletic Training is recognized by the American Medical Association (AMA) as a healthcare profession.

Athletic Training is practiced by Athletic Trainers (ATs), health care professionals who collaborate with physicians to optimize activity and participation of patients and clients. The services provided by ATs comprise prevention, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions involving impairment, functional limitations, and disabilities. Students who want to become certified athletic trainers must earn a degree from an accredited athletic training curriculum. Accredited programs include formal instruction in areas such as injury/illness prevention, first aid and emergency care, assessment of injury/illness, human anatomy and physiology, therapeutic modalities, and nutrition.

For additional information please refer to the following website: http://www.nata.org/athletic-training.

The AT Program is designed for the athlete trainer's professional preparation based on the development of current knowledge, skills, and abilities in content areas such as evidence-based practice, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic interventions, psychosocial strategies and referral, healthcare administration, and professional development and responsibility. Classroom learning is enhanced through clinical education experiences. Upon successful completion of all the AT Program requirements and Program Director approval, students are eligible to take the Board of Certification (BOC) examination to become a certified athletic trainer (ATC).

Professional careers in athletic training include professional sports, colleges & universities, secondary schools, hospital & clinical, /occupational health, military, performing arts, physician extender, and public safety.

Admission Under Impaction

The Bachelor of Science in Athletic Training is a highly impacted major and requires a program application in addition to the CSULB admission application. Admission to CSULB does not guarantee admission into the Athletic Training major. Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Athletic Training Education Program Website

Refer to the following website for the most current AT Program information, program application packet, and additional resources: http://www.csulb.edu/colleges/chhs/departments/kin/athletic-training/index.html.

Requirements

Core:
Take all of the following courses:
- KIN 201 Introduction to Kinesiology (3) Prerequisites: None
- KIN 300 Biomechanics of Human Movement (3) Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.
- KIN 301 Exercise Physiology (3) Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite: KIN 201.
- KIN 312 Motor Control and Learning (3) Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201.
- KIN 332 Sociocultural Dimensions of Sport/Human Movement (3) Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.

Lower Division:
Take one of the following courses:
- MATH 109 Modeling with Algebra (3) * C or better Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
- MATH 113 Precalculus Algebra (3) * C or better Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 7 or 11.
- MATH 119A Survey of Calculus I (3) * C or better Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
- MATH 122 Calculus I (4) * C or better
Take all of the following courses:

ATEP 207 Prevention and Care of Athletic Injuries (3)

**C** or better required.
Prerequisites: Current certification in CPR, AED, and First Aid. Certification must include Adult, Child, and Infant CPR; Conscious and Unconscious Choking for victims of all ages; Automated External Defibrillator (AED), and Basic First Aid.
Corequisite: KIN 201

KIN 263 Techniques in Physical Fitness (2)
Prerequisites: None.

BIOL 207 Human Physiology (4)

**C** or better required.
Prerequisites: GE Foundation requirements.

BIOL 208 Human Anatomy (4)

* C or better
Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

NUTR 132 Introductory Nutrition (3)

* C or better
Prerequisites/Corequisites: One Foundation course.

PHYS 100A General Physics (4)

* C or better
Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 122.

PSY 100 General Psychology (3)

* C or better
Prerequisites/Corequisites: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

Take one of the following courses:

BIOL 260 Biostatistics (3)

Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

KIN 483 Statistics in Human Movement Science (3)

Prerequisites: KIN 300, KIN 301, KIN 312.

PSY 110 Introductory Statistics (4)

Prerequisites: Eligible to take a General Education Mathematics course.

STAT 108 Statistics for Everyday Life (3)

Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 7 or MAPB 11 or MAPB 12. Upper Division.

Take all of the following courses:

ATEP 304 Clinical Aspects of Athletic Training (3)

Prerequisites: Admission to the Athletic Training program and consent of instructor.

ATEP 306 Medical Aspects of Athletic Training (3)

Prerequisites: ATEP 490B.

ATEP 308A Athletic Training Evaluation I (3)

Prerequisites: ATEP 304.

ATEP 308B Athletic Training Evaluation II (3)

Prerequisites: ATEP 308A.

ATEP 309 Developmental and Therapeutic Exercise (3)

Prerequisites: KIN 300, KIN 301 or consent of instructor.

ATEP 310 Therapeutic Approaches in Athletic Training (3)

Prerequisite(s): ATEP 304.

ATEP 407 Management Strategies in Athletic Training (3)

Prerequisite(s): ATEP 490B.

ATEP 490A Clinical Education in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of ATEP 304; satisfactory completion of CSULB Athletic Training Program Health and Safety requirements; and satisfactory completion of CSULB Athletic Training Program Technical Standards Form.

ATEP 490B Clinical Education in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of ATEP 490A.

ATEP 490C Clinical Education in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of ATEP 490B.

ATEP 490D Clinical Education in Athletic Training (2)

Prerequisites: Consent of instructor and successful completion of ATEP 490C.

ATEP 491 Seminar in Athletic Training (1)

Prerequisite: Consent of instructor and successful completion of ATEP 490C.

Corequisite: ATEP 490D

H SC 427 Drugs and Health (3)

Prerequisites: Upper division standing.

KIN 315 Motor Development (3)

Prerequisites: BIOL 207, BIOL 208 or PSY 100 or equivalent.

KIN 339 Psychology of Sport Behavior and Athletic Performance (3)

Prerequisites: GE Foundation requirements, PSY 100 and upper division standing.

KIN 462 Advanced Strength and Conditioning (3)

Prerequisites: KIN 300, KIN 301. Open to Athletic Training, Exercise Science and Fitness majors in Kinesiology or consent of instructor.

Certificate Programs

The Department of Kinesiology offers one certificate program. The certificate program are open to students enrolled in the University who meet general admission requirements as follows:
1. Completion of 30 hours of course work;
2. A minimum 2.75 GPA in all completed course work;
3. Admission application and approval by a faculty committee in the certificate program selected.

Certificate in Wilderness Studies

Program is under consideration for discontinuance.

Students may only pursue the certificate program in combination with a CSULB degree program.

Requirements

1. Wilderness First Responder (WFR) Certification (80 hours)
2. Resume of Outdoor Experiences
3. Coursework (27-29 units):
   Take all of the following:
   KIN 242 Backpacking (2)
   Prerequisites: None.
   KIN 244 Kayaking (2)
   Prerequisites: None.
   KIN 246A Mountaineering (2)
   Prerequisites: None.
   KIN 247A Techniques of Rockclimbing (2)
   Prerequisites: None.
   KIN 489K Field Work in Physical Activity Settings - Fieldwork in Wilderness Studies (3)
   Prerequisite: Completion of Kinesiology course requirements
Master of Arts in Kinesiology

Admission Criteria

1. A bachelor's degree from an accredited institution with a major in Kinesiology/Physical Education or the equivalent;
2. If a prospective graduate student has a baccalaureate degree in a field other than Kinesiology or Physical Education, he/she may be required to take prerequisite or foundational upper-division undergraduate coursework in Kinesiology. Students must consult with the Associate Chair for Graduate Studies and/or major advisor before enrolling in foundational courses. The courses, which vary depending on the student's academic background and Option, may be taken at CSULB or another college/university. All foundational coursework must be completed prior to Advancement to Candidacy.
3. An overall undergraduate GPA of 2.5 or better and an upper division Kinesiology/Physical Education major GPA of 2.75 or better;
4. A minimum cumulative score of 150 on the verbal, 141 on the quantitative and 3.5 on the analytical writing sections of the Graduate Record Examination.

Advancement to Candidacy

1. Completion of the general University requirements for advancement to candidacy;
2. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
3. A graduate program must have approval of the student's advisor, Department Associate Chair for Graduate Studies, and Associate Dean of Graduate Studies, Research, and Faculty Affairs for the College of Health and Human Services.

Graduate Programs

Two degree programs are available to the student: Master of Arts degree in Kinesiology with five Options and Master of Science degree in Kinesiology with four Options. Students may select the thesis/project track, the comprehensive examination track, or the capstone course track. The minimum unit requirement for the all MA or MS degree programs in Kinesiology is 36 units.

Option in Adapted Physical Education

This option is designed to provide advanced preparation in adapted physical activity and the study of individuals with disabilities across the lifespan (preschool to adult).

Requirements

1. Take the following course:
   KIN 696 Research Methods and Statistical Analysis (3)
   Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.
2. Minimum of 12 units, take the following:
   EDSP 577, EDSP 578; KIN 537, KIN 638, KIN 697
3. Select option A or B (21 units):
   A. Pass written and oral portions of Comprehensive Exam and complete 21 units of approved electives.
   B. Thesis/Project: Complete KIN 698 (6 units) plus 15 units of approved electives.
4. Complete at least seventy percent (70%) of the minimum units required for the program of study in courses at the 500/600 level, including double-numbered courses.

Option in Coaching and Student-Athlete Development

1. Required Courses (18 units):
   KIN 512 Legal and Ethical Issues in Sport (3)
   Prerequisites: Graduate standing; admission into the Kinesiology Graduate Sport Management Program; or consent of instructor.
   KIN 572 Applied Sport Psychology (3)
   Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
   KIN 575 Psychology of Coaching (3)
   Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
   KIN 577 Sport in U.S. Culture (3)
   Prerequisites: KIN 332 or equivalent.
   KIN 593A Coaching Internship (3)
   Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; advancement to candidacy and approval of Intern Coordinator.
   KIN 696 Research Methods and Statistical Analysis (3)
   Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.
2. Electives (12 units)
   Select four from the following list of elective courses:
   KIN 529, KIN 541, KIN 573, KIN 630, KIN 597 or KIN 697, KIN 560, KIN 573, KIN 593B, KIN 633; PSY 553, PSY 678
3. Select either A or B (6 units):
   A. Thesis/Project: KIN 698 Thesis/Project (6 units)
   B. Pass written and oral portions of Comprehensive Exam and complete six (6) units chosen from Elective Courses listed above.

Option in Pedagogical Studies

This option is currently inactive.

This option is offered only through College of Continuing and Professional Education at a higher tuition rate. Instruction is presented in an accelerated cohort program format over 24 months.
Requirements

1. Required courses (21 units)
   - KIN 522 Non-traditional Activities in K-12 Physical Education (3)
     Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
   - KIN 524 Analysis of Teaching in Physical Education (3)
     Prerequisites: None.
   - KIN 525 Instructional Design in Physical Education (3)
     Prerequisites: Undergraduate major in physical education, EDST 300.
   - KIN 528 Promoting Physical Activity and Fitness in K-12 Physical Education (3)
     Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
   - KIN 529 Positive Youth Development and Physical Activity (3)
     Prerequisite: Graduate standing; admission to the Masters program in Kinesiology
   - KIN 580 Computer Application in Physical Education (3)
     Prerequisites: Graduate standing, consent from instructor. Introduction to computer hardware and software used in Kinesiology including DOS/Windows and Apple Macintosh operating systems.
   - KIN 696 Research Methods and Statistical Analysis (3)
     Prerequisite: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.
   - KIN 526 Applied Behavior Analysis in Physical Education (3) and 537 Physical Education for Special Populations (3) may be substituted, with instructor permission, for any of the above courses except KIN 524, 525 or 696.

2. Elective courses (12 units)
   Select three of the following 3-unit courses plus an additional three unit course at the 500 or 600 level:
   - EDSE 435, EDSE 436, EDSE 457, EESS 450P, or EESS 473P.

3. Select option A or B:
   A. Pass written and oral portions of Comprehensive Exam.
   B. Thesis/Project (6 units): Complete 6, rather than 12 elective units focused on a specific theme of study.

4. Complete at least seventy percent (70%) of the minimum units required for the program of study in courses at the 500/600 level, including double-numbered courses.

Option in Sport Management

This option is offered only through College of Continuing and Professional Studies at a higher tuition rate. Instruction is presented in an accelerated cohort program format over 18 months.

Requirements

1. Take all the following courses:
   - KIN 511A Sports Marketing, Development and Fund Raising (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 511B Sports Marketing, Development and Fund Raising (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management, & KIN 511A.
   - KIN 512 Legal and Ethical Issues in Sport (3)
     Prerequisites: Graduate standing; admission into the Kinesiology Graduate Sport Management Program; or consent of instructor.
   - KIN 513 Personnel and Facility Management in Athletics (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 514 Sport Finance (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 521 Foundations of Sport Management (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 591 Field Studies in Sport Event Management (3)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 592A Sports Management Internship (6)
     Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management
   - KIN 694 Capstone in Kinesiology (3)
     Prerequisite: KIN 696 and admission into a Kinesiology graduate program.
   - KIN 695 Seminar in Professional Literature (3)
     Prerequisite: Graduate standing; admission into the Graduate Program in Sport Management.
   - KIN 696 Research Methods and Statistical Analysis (3)
     Prerequisites: Graduate standing; admission into Kinesiology or related field, undergraduate Statistic course or equivalent.

2. Pass written and oral portions of Comprehensive Exam.

Option in Individualized Studies

This option is designed to provide the student with curriculum activities that combine one or more option areas into a program of study. This option is developed by the student with the advisement of a graduate faculty member and/or the Associate Chair for Graduate Studies. A statement of rationale for the proposal must accompany the program of study.

Requirements

1. Required Course (3 units)
   - KIN 696 Research Methods & Statistical Analysis (3);

2. Select A or B (33 units):
   A. Thesis/Project: KIN 698 Thesis/Project (6 units) and complete 27 advisor approved Elective units focused on a specific theme of study.
   B. Pass written and oral portions of Comprehensive Exam and complete 33 advisor-approved Elective units focused on a specific theme of study.

3. Complete at least seventy percent (70%) of the minimum units required for the program of study in courses at the 500 and 600 levels, including double-numbered courses (400/500). At least fifty percent (50%) of the units required for the degree shall be in courses organized primarily for graduate students.

Master of Science in Kinesiology

Four options are under the Master of Science degree in Kinesiology. The core courses for thesis/project students are KIN 696 and KIN 698. The core course for comprehensive examination students is KIN 696.

Option in Exercise Science

Requirements

1. Required Coursework (12 units):
   - KIN 530 Neuromotor Control (3)
     Prerequisites: Graduate standing, KIN 312 or equivalent.
KIN 541 Applied Biomechanics (3)  
Prerequisites: KIN 300 or equivalent.

KIN 551 Advanced Exercise Physiology (3)  
Prerequisites: KIN 301 or equivalent and BIOL 207 or equivalent.

KIN 696 Research Methods and Statistical Analysis (3)  
Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.

2. Elective Courses (18 units): 
Select six of the following courses:
- KIN 540 KIN 552, KIN 553, KIN 562, KIN 565, KIN 566, KIN 568, KIN 594, KIN 630, or KIN 697

3. Select option A, B, or C (6 units):
A. Pass written and oral portions of Comprehensive Exam and complete 6 units of electives from within or outside of the department offerings selected from appropriate areas of interest in consultation with advisor.
B. Thesis/Project: Complete KIN 698 (6 units)

Option in Sport and Exercise Psychology

Requirements
1. Core (18 units):
- KIN 512 Legal and Ethical Issues in Sport (3)  
  Prerequisites: Graduate standing; admission into the Kinesiology Graduate Sport Management Program; or consent of instructor.
- KIN 572 Applied Sport Psychology (3)  
  Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
- KIN 577 Sport in U.S. Culture (3)  
  Prerequisites: KIN 332 or equivalent.
- KIN 578 Psychological Aspects of Exercise and Fitness (3)  
  Prerequisites: KIN 339. Open to Fitness and Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
- KIN 633 Seminar in Sport Psychology (3)  
  Prerequisites: KIN 339 or consent of instructor.
- KIN 696 Research Methods and Statistical Analysis (3)  
  Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.

2. Elective Courses (12 units):
Select four of the following courses:
- KIN 529, KIN 573, KIN 575, KIN 630, KIN 697, PSY 553, PSY 575, PSY 678.

3. Select either option A or B (6 units):
A. Thesis/Project: KIN 698 Thesis/Project (6 units) plus six (6) units chosen from the following elective courses: KIN 540, KIN 552, KIN 553, KIN 565, KIN 666, KIN 573, KIN 577, or KIN 671.
B. Comprehensive Examination: Passing score in written and oral portions of Comprehensive Examination plus KIN 697 Directed Studies (3) and nine (9) units chosen from Elective Courses: KIN 540, KIN 552, KIN 553, KIN 565, KIN 566, KIN 573, KIN 577, or KIN 671.

Option in Exercise Physiology and Nutrition

Requirements
1. Required Coursework (12 units):
- KIN 551 Advanced Exercise Physiology (3)  
  Prerequisites: KIN 301 or equivalent and BIOL 207 or equivalent.
- KIN 552 Exercise Testing and Training in Health and Disease (3)  
  Prerequisites: KIN 301 or equivalent and BIOL 207 or equivalent.
- KIN 566 Biochemical and Hormonal Adaptations to Physical Activity (3)  
  Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration.
- KIN 696 Research Methods and Statistical Analysis (3) or FCS 696 Research Methods (3)  
  Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent.

2. Elective courses (9 units): 
Select three courses from the following list of courses: KIN 553, KIN 562, KIN 565, KIN 568, or KIN 594.

3. Elective courses (9 units): 
Select three courses from the following list of courses: KIN 568, FCS 530A, FCS 530B, FCS 531

4. Select either option A or B (6 units):
A. Thesis and Project Candidates: KIN 698 Thesis (6)  
B. Pass written and oral portions of Comprehensive Exam and complete a minimum of 6 additional elective units approved by option advisor.

Single Subject Teaching Credential in Physical Education

For information, refer to the undergraduate section in this department.
Kinesiology Courses (KIN)

ACTIVITY COURSES

100-198. Physical Education Activity (1)
Broad range of physical education activities designed to provide opportunities to meet health, physical and recreational needs and interests.
Maximum of 8 units may be applied toward University graduation requirement. Students assume responsibility for satisfactory health status appropriate for class activity. May be offered at beginning (I), intermediate (II), and advanced (III) levels. All classes are co-educational, students may enroll in activity courses offered by Department of Kinesiology. Classes offered within areas are:

Individual/Dual Activities (1)
100A. Archery. Course fee may be required.
102A. Badminton
104A. Bowling. Course fee may be required.
108A. Golf
112A. Racquetball
114A,B,C. Tennis
145A. Gymnastics
152A. Yoga

Combative Activities (1)
106A. Fencing-Foil
107A. Fencing-Sabre
148A. Karate
149A. Self Defense

Aquatics (1)
121A. Sailing. Course fee may be required.
124A. Surfing
125A. Swimming
126A. Swimming Conditioning
127A. Aqua Aerobics (1)

Fitness Activities (1)
109A. Fitness Walking (1)
142. Group Exercise: Cardio
146A. Jogging
151A. Weight Training and Conditioning

Team Activities
161A. Basketball
162A. Beach Volleyball
165A. Flag Football
166. Rugby
167A. Soccer
168A. Ultimate Frisbee (1)
169A. Softball
172A,B,C. Volleyball

Recreational Dance
183A. Recreational Dance Workshop
188. Salsa
185. Social Dance

198. Special Activities
  F. Group Exercise: Dance Conditioning (1-3)
  G. Tai Chi Chuan (1)
  H. Chinese Sword Combat for Sport (1)

J. Mat Pilates Level I (1)
K. Kung Fu (1)
L. Group Exercise: Stretch and Relaxation (1)
M. Pickleball (1)

* See Physical Education professional courses for additional activities open to non-majors.

PROFESSIONAL COURSES

Kinesiology majors and minors will be given priority enrollment in classes required for the major. Selected courses are available to the general student body to receive credit toward general education requirements.

LOWER DIVISION

143. Individual Conditioning (1)
Designed to introduce the student to the activities, equipment, and techniques used in the development of conditioning programs tailored to one's individual needs.
May be repeated to a maximum of 8 units.

156. Sports Appreciation (3)
Prerequisite/Corequisite: GE Foundation requirement.
Introduction to the study of sport as a social institution in American society.

157. Fitness for Living (3)
Prerequisite/Corequisite: GE Foundation requirement.
Application of principles of human anatomy, physiology, motor control and bio-mechanics to the development of exercise programs for health and fitness.
(Lecture 2 hours, Activity 2 hours.)

189. Country Dancing (1)
Instruction and practice in various country dance forms including line dancing, two-step, waltz, contra dancing, round dancing, and mixers. Useful for lifelong fitness, socialization, and recreation.
May be repeated to a maximum of 8 units.

200. Psychological Skills for Peak Performance in Sport (3)
Introduction of psychological strategies and skills designed to help individuals achieve optimal performance. Skills such as imagery, goal setting, self-talk, attentional focusing, arousal regulation, and coping are presented.
(Lecture, 3 hours)

201. Introduction to Kinesiology (3)
Prerequisites: None.
Survey of the discipline of kinesiology. Analysis of the knowledge base of the discipline and careers in physical activity professions. Focus is on the integrative nature of the discipline. Open to Kinesiology majors and pre-majors only. Letter grade only (A-F).

210. Advanced Emergency Care (3)
Theory and practice of first aid for the injured. Successful completion of course requirements leads to the American National Red Cross advanced first aid and personal safety and community CPR certificate.
Course fee may be required.

218. Professional Development in the Fitness Industry (2)
Prerequisites: Open to Fitness Option students in Kinesiology only or by consent of instructor.
An introduction to the Fitness profession which will provide the student with information regarding the history of the fitness industry, its educational expectations, standards and scope of practice basic skills needed to enter the field, and career options.
Letter grade only (A-F).
237. Techniques and Analysis of Aquatic Skills (2)
Prerequisites: American Red Cross Community First Aid and CPR certification or equivalent. Open to Kinesiology majors in the Adapted Physical Education and K-12 Physical Education teacher education option only. To maintain enrollment, students must pass the swimming proficiency examination that will be administered the first week of instruction.
Instruction and techniques in individual aquatic skills, hydrodynamic and movement principles, and an exposure to a variety of learning procedures applicable to the development of aquatic skills.
Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)

242. Backpacking (2)
An experiential examination and analysis in the judgment, knowledge, equipment and skills necessary to safe wilderness travel and living. A 2-3 day field experience required.
Course fee may be required.

243A. Winter Mountain Expedition (2)
Introduction to winter mountaineering skills; study of the mountain environment. Field experience required.
Course fee may be required (Activity 4 hours)

243B. Winter Mountain Expedition Field (1)
Prerequisite: KIN 243A.
Application of the knowledge and skills required for winter mountaineering. Involves a 7-10 day field trip.
Course fee may be required. (2 hours activity)

243C. Desert Expedition (3)
Introduction to the skills, attitudes and knowledge required for safe use and enjoyment of desert areas. An interdisciplinary introduction to the meaning and significance of the desert. Trip planning, map use, methods of safe travel. Includes field trip.
Course fee may be required. (Activity 6 hours.)

244. Kayaking (2)
An experiential examination and analysis of the judgment, knowledge, equipment and skill development necessary to safe flat and whitewater kayaking. A 2-3 day field experience required.
Course fee may be required. (Activity 4 hours.)

245A. Wilderness Water Expedition (2)
Introduction to the skills, attitudes and knowledge required for safe use of varied types of wilderness waters. The skills and techniques of boat handling and trip planning. An interdisciplinary introduction to the study of waterways. A 2-3 day field experience required.
Course fee may be required. (Activity 4 hours)

245B. Wilderness Water Expedition Field (1)
Prerequisite: KIN 245A.
Application of the knowledge and skills required for different types of wilderness water expeditions. Involves a 10-14 day field trip.
(2 hours of activity)

246A. Mountaineering (2)
An experiential examination and analysis in the judgement, knowledge, equipment and skills necessary to safe mountaineering. Course includes field trip.
Letter grade only (A-F). (Activity 4 hours) Course fee may be required.

247A. Techniques of Rockclimbing (2)
Introduction to the basic skills, judgment and safety for technical rockclimbing. The skills and techniques of top roping, belaying rappels and self rescue. Includes a field trip.
Course fee may be required. (Activity 4 hours)
270. Professional Practices in Public School Physical Education (3)
Prerequisite: Students must meet the University GE writing course requirement.
Corequisite: Community CPR/First Aid/Safety or current certification.
Provides an overview of current professional practices in public school physical education. Students plan, teach, and self-evaluate lessons. Required introductory course for Adapted, Elementary and Secondary Pedagogy options after 30 units of college course work.
Open to Kinesiology majors in the Adapted PE Option and K-12 PE Option. Letter grade only (A-F). (Lecture 2 hours, Lab 2 hours)

UPPER DIVISION

300. Biomechanics of Human Movement (3)
Prerequisites: BIOL 208 or equivalent 4-unit Human Anatomy course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite: KIN 201.
Anatomical structure and function, and mechanical principles relating to human motion, including analytical application.
Grading: Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours)

301. Exercise Physiology (3)
Prerequisites: BIOL 207 or equivalent 4-unit Human Physiology course with 3-hour lecture and 3-hour laboratory with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only.
Corequisite: KIN 201
Basic concepts of the physiology of muscular exercise with emphasis on the responses and adaptations of the circulatory system, the respiratory system, and skeletal muscles to the physical stress of acute and chronic exercise.
Letter grade only (A-F). (Lecture 2 hours, Laboratory 3 hours).
Course fee may be required.

302. Structural Kinesiology (3)
Prerequisites: BIOL 208 or equivalent.
Focuses specifically on the nervous and musculoskeletal systems with an emphasis on control, structure, evaluation of, and injury to the musculoskeletal system. Students will examine clinical and pathological examples to understand how change in structure yields change in function.
Letter grade only (A-F).
(Lecture 2 hrs., laboratory 3 hrs.)

312. Motor Control and Learning (3)
Prerequisites: BIOL 207, BIOL 208 and PSY 100 with grade of "C" or better or consent of instructor. Open to Kinesiology and Dance Science majors only. Corequisite(s): KIN 201 applies to Kinesiology majors.
Letter grade only (A-F).
Basic concepts of the neuro-motor and psychological contributions in the control and acquisition of skilled performance.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

315. Motor Development (3)
Prerequisites: BIOL 207, BIOL 208; PSY 100 or equivalent.
Developmental perspective of factors contributing to acquisition of motor control from infancy through adolescence.
(Lecture 2 hours, Activity 2 hours)

320. Adapted Physical Education (3)
Prerequisites: BIOL 208.
Kinesiology majors learn to teach physical activity to persons with disabilities. Discussed are the etiology characteristics and best teaching practices (i.e., inclusion) for persons with mental, learning physical, emotional, sensory, health, and/or multiple disabilities.
(Lecture 2 hours, Activity 2 hours).

332. Sociocultural Dimensions of Sport and Human Movement (3)
Prerequisite(s)/Corequisite(s): KIN 201; for KIN students only.
Designed to foster students' writing abilities specific to the discipline of kinesiology through sociology of sport and physical activity content. An interdisciplinary approach used to identify the factors that define and influence human movement.
Letter grade only (A-F).

335. Historical and Cultural Foundations of Sport and Kinesiology in America (3)
Prerequisites: Upper division standing.
Survey of the history of sport and kinesiology. Historical identification of the cultural trends and functions of sport and kinesiology in America.
Open to Kinesiology Majors only.

338. Women in Sport (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Survey of women's historical and contemporary involvement with sport. The social, cultural and developmental implications of sports participation for women.

339. Psychology of Sport Behavior and Athletic Performance (3)
Prerequisites: GE Foundation requirements, PSY 100, and upper-division standing.
Psychological dimensions of attitudes, behaviors, and performance in sport and exercise environments.
Same course as PSY 339. Not open for credit with credit in PSY 339.

343. Techniques and Analysis of Physical Fitness and Activity (2)
Prerequisite: KIN 270.
Knowledge needed to plan and implement physical activity programs in public school. Analysis of development, maintenance, implementation, and self-assessment of physical fitness. Designed to prepare for FitnessGram assessments and Department's Physical Fitness Proficiency Examination.
Open to Kinesiology/Physical Education Pedagogy Majors and Minors only. Letter grade only (A-F). (Lecture 1 hour, Activity 3 hours).

354. Technology in Physical Education (3)
Overview of education technology applications, specifically word processing, spreadsheet, video technology, web-based information, internet related software and technologies, pdf documents, personal digital assistants (PDAs) and use of commercially produced education software.
Meets computer technology requirement for California Single Subject Teaching Credential. Letter grade only (A-F). (Lecture 2 hours, laboratory 2 hours).

363. Theory and Analysis of Group Fitness Instruction (2)
Prerequisite: KIN 263. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Learn to become effective group exercise leaders by understanding responsibilities of fitness leaders, principles of fitness, and leadership skill. Techniques for various group exercise activities will be taught.
Letter grade only (A-F). (Discussion 1 hour, Activity 2 hours)
364. Fitness for Adult Populations with Unique Health Considerations (3)
Prerequisites: KIN 301. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Scientific information regarding exercise testing and exercise prescription for adult special populations. Topics include pregnancy, diabetes, arthritis, stroke, respiratory disorder, coronary artery disease, hypertension, and obesity.
Letter grade only (A-F).

367. Fitness and the Aging Process (3)
Prerequisites: Fitness Option: KIN 218 and KIN 301; KIN Exercise Science Option: KIN 301; or consent of instructor.
Provides knowledge in the area of fitness and the older adult. Topics include theories of aging, age-related changes that affect physical capacity, exercise and its impact on the aging process, and physical activity programming for the older adult.
Letter grade only (A-F). (Discussion 2 hours, Activity 2 hours)

368. Resistance Training for Fitness (3)
Prerequisites: KIN 300 and KIN 301. Open to Fitness Option students in Kinesiology or consent of instructor.
The focus of the course will be on the proper execution of resistance exercises typically performed in fitness facility settings. Students will learn to design resistance-training programs based on scientific principles for developing muscular strength, endurance and power.
Letter grade only (A-F). (Discussion 2 hours, Activity 2 hours)

370. Movement Theory and Practice of Elementary Physical Education (3)
Prerequisite: KIN 270.
Provides Kinesiology Physical Education Teacher Education (PETE) Option candidates with movement theory and practice in elementary school physical education based upon California Physical Education Framework and Content Standards. Practice includes fieldwork experiences in elementary school physical education.
Designed for Kinesiology majors. (Lecture 2 hours, Activity 2 hours)

Prerequisites: KIN 149A, KIN 237, KIN 250, KIN 251, KIN 253, KIN 255, KIN 257, KIN 261, KIN 264, KIN 265, KIN 266, KIN 267, KIN 268, KIN 270; KIN 343, KIN 370 or consent of instructor. Suggest concurrent enrollment in EDSS 300P (single subject credential course).
Principles, organization and management of activities taught in secondary schools, includes basic organization and management strategies and fieldwork experience in public secondary school physical education.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

387. Physical Activities for the Disabled (3)
Prerequisites: KIN 320
Adaptation of physical activities, equipment, and facilities for individuals with permanent disabilities affecting motor performance.
Letter only (A-F). (Lecture 2 hours, Activity 2 hours)

388. Program Planning and Instruction in Adapted Physical Education (3)
Prerequisite: KIN 387.
Emphasis on program planning and the development of teaching skills in Adapted Physical Education.
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

405. Cardiopulmonary Aspects of Health-Related Exercise Programs (4)
Prerequisites: KIN 210 or current First Aid and CPR certificates, KIN 301. Open to Exercise Science Option students in Kinesiology only, or consent of instructor.
Theory and practical application of physical fitness assessment. Emphasis will be placed on the use of assessments to design and implement basic fitness programs for apparently healthy individuals.
Letter grade only (A-F). (Lecture 3 hours, Laboratory 3 hours)

427/527. Physical and Motor Assessment (3)
Prerequisites: KIN 315 or equivalent and KIN 320 or equivalent; upper-division undergraduate or graduate standing; consent of instructor required for graduate students prior to registration.
The selection, administration, and interpretation of standardized and informal tests used in the physical and motor assessment practices of individuals with disabilities.
Upper-division students register in KIN 427; Graduate students register in KIN 527. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

430. Motor Control Principles and Theory (3)
Prerequisite: KIN 312 or equivalent. Open to Exercise Science Option students in Kinesiology only, or consent of instructor.
Study of the principles, models, and theories of human movement control. Instruction is directed toward understanding the fundamental principles, theoretical propositions, and neuro-kinetic models, with applications to sport, physical education, human factors, and human performance.
Letter grade only (A-F).

431. Scientific Foundations of Locomotion (3)
Prerequisites: KIN 300, KIN 312. Open to Exercise Science Option students in Kinesiology only, or consent of instructor.
Instruction is directed towards understanding the influence of motor control theories, biomechanical principles, and constraints to human movement on locomotion.
Letter grade only (A-F).

432. Applied Motor Learning (3)
Prerequisites: KIN 300 and KIN 312.
Provides students with an applied perspective of Motor Learning. Motor learning topics addressed include: theory, research, and application. Focuses on requiring students to apply various motor learning concepts into real world environments.
Letter grade only (A-F).

441/541. Applied Biomechanics: Lifting and Work Capacity (3)
Prerequisites: KIN 300 or equivalent (Trigonometry and PHYS 100A recommended). Open to Exercise Science Option students in Kinesiology only, or consent of instructor.
Study of the mechanical properties of bone, ligament, tendon and skeletal muscle. Development, description, and application of selected biomechanical models to the evaluation of weight-lifting, rehabilitation exercises, and occupational lifting tasks. Critical analysis of methods used to assess strength.
Letter grade only (A-F).

457. Applied Theory of Teaching Team Sports (3)
Prerequisites: KIN 250, KIN 251, KIN 253, KIN 255, KIN 257, KIN 270 or consent of instructor; senior standing.
Comprehensive analysis of the principles of movement, corrections of performance, and organizational strategies utilized in presenting team sports: basketball, flag football, soccer, softball, volleyball, floor hockey, speedball, and team handball.
Letter grade only (A-F). (Lecture 2 hours, activity 2 hours)
460. Applied Theory and Analysis of Non-Traditional Physical Education Games and Activities (2)
Prerequisites: KIN 370, senior standing.
Organization and management to effectively plan and implement a variety of non-traditional physical education games and activities such as cooperative games, problem solving activities, collaborative learning groups, and outdoor educational experiences.
Letter grade only (A-F). Open to Kinesiology majors and minors only.
(Lecture 1 hour, Laboratory 3 hours)

461. Applied Theory of Teaching Individual and Dual Sports (3)
Prerequisites: KIN 237, KIN 264, KIN 265, KIN 266, KIN 267, KIN 268, KIN 270, or consent of instructor; senior standing.
Comprehensive analysis of the principles of movement and organizational strategies utilized in archery, badminton, golf, paddle tennis, pickleball, racquetball, tennis, swimming, orienteering, and track and field.
Open to Kinesiology majors in the Adapted PE Option and K-12 PE Option. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

462./562. Advanced Strength and Conditioning (3)
Prerequisites: KIN 300, KIN 301. Open to Athletic Training, Exercise Science and Fitness Option students in Kinesiology or consent of instructor.
Study of biomechanical and kinesiological factors which are important in understanding the function and proper techniques for execution of a wide variety of standard and advanced weight training exercises. Physiological bases for strength training and adaptations caused by different training regimes are emphasized.
Letter grade only (A-F).

465./565. Clinical Exercise Electrocardiography (3)
Prerequisites: BIOL 207 and KIN 301. Open to Exercise Science and Fitness Option students in Kinesiology only, or consent of instructor.
Study of the physiology and pathophysiology of the electrical activity of the heart. Instruction is directed toward pattern recognition of normal and abnormal resting and exercise electrocardiograms.

466./566. Biochemical and Hormonal Adaptations to Physical Activity (3)
Prerequisites: KIN 301 or equivalent; CHEM 111A or its equivalent. Open to Exercise Science Option students in Kinesiology only, or consent of instructor.
Study of the biochemical and hormonal changes that occur as a result of acute and chronic physical activity. Emphasis will be placed on the application of concepts to the development of exercise training programs.
Consent of instructor required for upper-division undergraduate students prior to registration. Upper-division undergraduate students register in KIN 466; graduate students register in KIN 566. Letter grade only (A-F). Same course as NUTR 466. Not open for credit to students with credit in NUTR 466.

467. Fundamentals of Personal Training (3)
Prerequisites: KIN 368. Open to Fitness Option students in Kinesiology only, or consent of instructor.
Designed to provide the student with theoretical knowledge and practical skills needed to become a personal trainer. Covers such topics as the business of personal training, client-trainer relationships, fitness and health assessments and exercise prescription.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours)

468./568. Nutrition for Exercise and Performance (3)
Prerequisites: NUTR 132, KIN 301 for the KIN Fitness option and the KIN Exercise Science option or BIOL 207 for the Nutrition and Dietetics option.
Explores role nutrients play in exercise and performance enhancement. Topics include evaluation of energy needs during physical activity, examination of weight management practices, assessment of nutritional status, and investigation of contemporary dietary issues related to exercise.
Letter grade only (A-F). Same course as NUTR 468. Not open for credit to students with credit in NUTR 468. Open to Kinesiology undergraduate students in the Fitness and Exercise Science options and to the Nutrition and Dietetics option in Family and Consumer Sciences.

469. Fitness Management (3)
Prerequisite: KIN 363, KIN 368. Open to Fitness Option students in Kinesiology only, or by consent of instructor.
Provides knowledge in the area of management of fitness programs. Topics will include program development, personnel issues, financial and legal considerations, equipment purchasing, and marketing strategies for fitness programs.
Open to Fitness Option students in Kinesiology only, or by consent of instructor. Letter grade only (A-F).

472./572. Applied Sport Psychology (3)
Prerequisites: KIN 339. Open to Sport Psychology and Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
Application of psychological skills and interventions to enhance athletic performance.

475./575. Psychology of Coaching (3)
Prerequisites: KIN 339. Open to Sport Psychology & Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
Current topics of psychological concern and application as related to athletic performance.
Letter grade only (A-F). Undergraduates register in KIN 475; graduates register in KIN 575. A written report is required for KIN 575.

476. Physical Education for the Elementary School Teacher (3)
Prerequisite: Junior standing.
Provides Multiple Subject Credential candidates with knowledge and experiences necessary to teach quality physical education lessons based upon the California Physical Education Framework and Content Standards. Content includes the FITNESSGRAM Program (state fitness test) and subject integration activities.
(Lecture 2 hours, Activity 2 hours)

477. Measurement and Curriculum in Physical Education (3)
Prerequisite: KIN 343 and KIN 370 or consent of instructor
Course provides students with experiences in content development, program implementation, and evaluation of a physical education program. This service-learning component allows students to teach and critically reflect on subject matter while assisting a population in need.
Letter grade only (A-F). (2 hours lecture discussion, 2 hours lab)

478./578. Psychological Aspects of Exercise and Fitness (3)
Prerequisites: KIN 339. Open to Fitness and Sport Psychology and Leadership students in Kinesiology only, or by consent of instructor or graduate standing.
Philosophical, psychological and behavioral concepts of physical activities and health states will be discussed. Professional standards and invention strategies will be covered.
Letter grade only (A-F).
Undergraduates register in KIN 478; graduates register in KIN 578; A written report is required for KIN 578.
483. Statistics in Human Movement Science (3)
Prerequisites: KIN 300, KIN 301, KIN 312.
Evaluation and analysis of measuring devices and resulting data used in Kinesiology: Interpretation of data using appropriate statistical analyses.
(Lecture 2 hours, Activity 2 hours)

487./587. Supervised Activity Instruction Experience (1-3)
Prerequisite: Upper division or graduate standing and consent of instructor.
Experience in the organization of and methods for the activity component of a course in kinesiology. A written report is required for KIN 587 students.
Undergraduates register in KIN 487; graduates register in KIN 587. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open for credit to graduate students with credit in KIN 487. (Conference 1 hour, Laboratory 2 hours per unit)

489. Field Work in Physical Activity Settings (3) Prerequisite: Completion of Kinesiology course requirements for the major Option in which field work is taken. Supervised practice in working with individuals or small to large groups in public or private agencies and schools. Letter grade only (A-F). Course fee may be required. May be repeated to a maximum of 9 units.
A. Fieldwork in Adapted Physical Education
B. Fieldwork in Athletic Coaching
D. Fieldwork in Fitness
   Additional Prerequisites: KIN 467, completion of 200 hours in a corporate fitness setting, 200 hours in a traditional fitness setting, and 100 hours of approved fitness experience. Open to Fitness Option students in Kinesiology only.
G. Fieldwork in Sport Training and Research
K. Fieldwork in Wilderness Studies
   Additional Prerequisites: KIN 242, KIN 244, KIN 246A or KIN 247A, KIN 243C or KIN 245A. Certification in CPR and First Aid, and consent of instructor.

494./594. Exercise Science Internship (3)
Prerequisites: Upper-division or graduate standing with a grade of "B" or better in KIN 300 for a biomechanics internship or KIN 301 for an exercise physiology internship or KIN 312 for a motor control and learning internship; consent of instructor required prior to registration. Provides practical experience in applying exercise science concepts in a fieldwork setting such as cardiac rehabilitation in a medical setting. Upper-division undergraduate students register in KIN 494; Graduate students register in KIN 594. Letter grade only (A-F). May be repeated to a maximum of 6 units. Course fee may be required.

495./595. Supervised Laboratory Methods (1-3)
Prerequisites: Upper division or graduate standing and consent of instructor.
Provides experience in the methods of the laboratory component for a Kinesiology course, for example, assisting students with their experiments and laboratory reports. Undergraduates register in KIN 495; graduates register in KIN 595. A written report is required for KIN 595 students. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open for credit to graduate students with credit in KIN 495. (Conference 1 hour, Laboratory 2 hours per unit) May be repeated to a maximum of 4 units.

497. Independent Study (1-3)
Prerequisites: Major in Kinesiology, senior standing and consent of Kinesiology Department.
Student will conduct independent library or laboratory research under the supervision of a faculty member and write a report of the investigation. May be repeated to a maximum of 6 units. Letter grade only (A-F).

499. Selected Topics in Kinesiology (1-3)
Group investigation of topics of current interest in kinesiology or athletics. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

GRADUATE LEVEL

511. Sports Marketing, Development, and Fund Raising (3)
Prerequisites: Graduate standing and a Baccalaureate Degree in Kinesiology/Physical Education or related field and admission to the Kinesiology Graduate Sports Management Program. Provides students with an overview of sport marketing. It presents basic marketing terminology and discusses the application of marketing concepts to the development and promotion of the business of sport.
Letter grade only (A-F).

511A. Sport Marketing, Development, and Fundraising Management (3)
Prerequisites: Graduate Standing; admission to the Graduate Program in Sport Management. The application of marketing principles, research, segmentation, product development, pricing, event marketing, sponsorship, fundraising, consumer behavior, licensing, branding, advertising, and sales promotion within the context of effective sport marketing.
Letter grade only (A-F).

511B. Sport Marketing, Development, and Fundraising Management (3)
Prerequisites: Graduate Standing; admission to the Graduate Program in Sport Management. Addresses various aspects of sport management including advertising, marketing platforms, social media program development, personal branding, sales development, sponsor motivations, sport philanthropy, crisis management, key performance indicators, public relations, consumer insights, and leveraging relationships.
Letter grade only (A-F).

512. Legal and Ethical Issues in Sport (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management. Examines legal and ethical issues associated with sport settings.
Letter grade only (A-F).

513. Personnel and Facility Management in Athletics (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management. Examines the principles and practices associated with managing personnel and facilities in interscholastic, intercollegiate, amateur, international, and professional sport.
Letter grade only (A-F).

514. Sport Finance (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management. Discusses financial management principles for use in interscholastic, intercollegiate, amateur, international, and professional sports. Special emphasis is placed on understanding various means by which sport organizations control costs and increase revenue.
Letter grade only (A-F).

521. Foundations of Sport Management (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management. Introduces students to the business of sport and the functional areas of Sport Management. Discusses the leadership/supervisory philosophies, principles, and practices of managing interscholastic, intercollegiate, amateur, international, and professional sport.
522. Non-Traditional Activities in K-12 Physical Education (3)
Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
Plan, implement, and evaluate nontraditional games and activities. Emphasis is on meeting needs of diverse populations, including students with disabilities, problem-solving, assessment, safety and injury prevention, ethical issues, group discussion, analysis of school outdoor educational experiences.
Letter grade only (A-F).

524. Analysis of Teaching in Physical Education (3)
Analysis of teachers and teaching in physical activity environment: focus on developing observational competencies, analysis of research completed and future research designs.

525. Instructional Design in Physical Education (3)
Prerequisites: Undergraduate major in physical education, EDST 300.
A systems approach to designing instruction for the physical education program.

526. Applied Behavior Analysis in Physical Education (3)
Application of applied behavior analysis principles to physical education (sport) with particular emphasis on single subject research designs and behavior analysis in the physical education setting.

527./427. Physical and Motor Assessment (3)
Prerequisites: KIN 315 or equivalent and KIN 320 or equivalent.
Upper-division undergraduate or Graduate standing.
Includes the selection, evaluation, administration and interpretation of various tests used in the physical and motor assessment practices of individuals with disabilities. Consent of instructor required for graduate students prior to registration. Requirement toward the Adapted Physical Education Specialist Credential. Upper-division students register in KIN 427; Graduate students register in KIN 527. Letter grade only (A-F).
(Lecture 2 hours, Activity 2 hours)

528. Promoting Physical Activity and Fitness in K-12 Physical Education (3)
Prerequisite: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies.
Develop physical education program plans that are in compliance with California State Content Standards for promoting physically active lifestyles and healthy physical fitness levels for all children, including those with special needs.
Letter grade only (A-F).

529. Positive Youth Development and Physical Activity (3).
Prerequisites: Graduate Standing; admission to the Master Program in Kinesiology.
Course provides theoretical foundations and practical applications of positive youth development programs in physical activity settings. Emphasis placed on programs that serve youth through physical activity, with special emphasis on promoting levels of personal and social responsibility. (2 hours lecture, 2 hours activity)
Letter grade only (A-F)

530. Neuromotor Control (3)
Prerequisites: Graduate standing, KIN 312 or equivalent.
Study of the neurological and muscular contributions to the control of human movement with emphasis on application of concepts to sports, physical activity, and human factors. Instruction is directed toward understanding the fundamental principles of motor control.
Letter grade only (A-F).

537. Physical Education for Special Populations (3)
Foundations in the organization and conduct of Adapted Physical Education.
heart. Instruction directed toward pattern recognition of normal and abnormal resting and exercise electrocardiograms.

566/466. Biochemical and Hormonal Adaptations to Physical Activity (3)
Prerequisites: Upper-division undergraduate or Graduate standing; KIN 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration.

Study of biochemical and hormonal changes that occur as a result of acute and chronic physical activity. Emphasis on application of concepts to development of exercise training programs.
Upper-division undergraduate students register in KIN 466; graduate students register in KIN 566. Letter grade only (A-F). Same course as FCS 566. Not open for credit to students with credit in FCS 566.

568/468. Nutrition for Exercise and Performance (3)
Prerequisites: NUTR 132, KIN 301 for the KIN Fitness option and the KIN Exercise Science option or BIOL 207 for the Nutrition and Dietetics option.

Explores the role nutrients play in exercise and performance enhancement. Topics include evaluation of energy needs during physical activity, examination of weight management practices, assessment of nutritional status, and investigation of contemporary dietary issues related to exercise.
Letter grade only (A-F). Same course as FCS 568. Not open for credit to students with credit in FCS 568. Open to all graduate Kinesiology students in the Adapted Physical Education, Coaching and Student Athlete Development, Pedagogical Studies (for K-12 teachers), Sport Management, Individualized Studies, Exercise Science, Exercise Physiology and Nutrition, Sport and Exercise Psychology, and Sports Medicine and Injury Studies options and M.S. students in the Nutritional Science without Dietetic Internship and Nutritional Science with Dietetic Internship, and Food Science emphaesizes and/or consent of instructor.

572/472. Applied Sport Psychology (3)
Prerequisites: KIN 339. Open to Sport Psychology and Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

Application of psychological skills and interventions to enhance athletic performance.
Letter grade only (A-F). Graduates register in KIN 572; undergraduates register in KIN 472. A written report is required for KIN 572 students.

573. History of Sport in the U.S.A. (3)
Prerequisite: KIN 335 or equivalent.
An analysis of the history of American sport as it reflects the dominant themes in American society.

575/475. Psychology of Coaching (3)
Prerequisites: KIN 339. Open to Sport Psychology and Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

Current topics of psychological concern and application as related to athletic performance.
Letter grade only (A-F). Graduates register in KIN 575; undergraduates register in KIN 475. A written report is required for KIN 575.

577. Sport in U.S. Culture (3)
Prerequisite: KIN 332 or equivalent.

Analysis of physical activities in U.S. culture. Consideration of the relationships between sports and games and the factors of status, values, environment and cultural change.

578/478. Psychological Aspects of Exercise and Fitness (3)
Prerequisites: KIN 339. Open to Fitness and Sport Psychology and Leadership students in Kinesiology only, or by consent of instructor or graduate standing.

Philosophical, psychological and behavioral concepts of physical activities and health states will be discussed. Professional standards and invention strategies will be covered.
Letter grade only (A-F).
Graduates register in KIN 578; undergraduates register in KIN 478; A written report is required for KIN 578.

580. Computer Applications in Physical Education (3)
Prerequisites: Graduate standing, consent from instructor.
Introduction to computer hardware and software used in Kinesiology including DOS/Windows and Apple Macintosh operating systems.
Topics include: hardware, operating systems, word-processing, spreadsheets, data exchange, presentation graphics/authoring tools, and video capture. Emphasis will be placed on integrating the use of hardware and software into a variety of Physical Education environments.

587/487. Supervised Activity Instruction Experience (1-3)
Prerequisite: Upper division or graduate standing and consent of instructor.

Experience in the organization of and methods for the activity component of a course in kinesiology and physical education.
Undergraduates register in KIN 487; graduates register in KIN 587. A written report is required for KIN 587 students. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open for credit to graduate students with credit in KIN 487. (Conference 1 hour, Laboratory 2 hours per unit)

590. Statistical Analysis and Measurement in Kinesiology and Physical Education (3)
Prerequisites: EDSE 421, EDSS 450P or EDSS 450W, KIN 483 or equivalent.
Introduces students to the logic and application of basic descriptive and inferential statistics (i.e., correlation, regression, and analysis of variance) and includes a critical analysis of selected research publications.
Required of all master's degree candidates. To be completed within first 12 units of 500-600 series courses.

591. Field Studies in Sport Event Management (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
Practical field-based course requires students to complete 15 hours of classroom seminar instruction and 120 hours of supervised practical experience in a managed sport setting.
Letter grade only (A-F).

592A. Sports Management Internship (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management.
A minimum of 20 hours per week for 16 weeks of supervised work experience in an approved sport management/administrative setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity.
Note: 6 units in one semester may not be taken if student is full-time employed. May be repeated to a maximum of 6 units.
Letter grade only (A-F).

593A. Coaching Internship (3)
Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; advancement to candidacy and approval of Intern Coordinator.
A minimum of 20 hours per week for 16 weeks of supervised work experience in an approved coaching setting, jointly supervised by a University Faculty member and a supervisor from the assigned
organization. May be in a paid or volunteer capacity. Note: 6 units in one semester may not be taken if student is full-time employed. May be repeated to a maximum of 6 units. Course fee may be required. Letter grade only (A-F).

593B. Coaching Internship (6)
Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; advancement to candidacy and approval of Intern Coordinator. A minimum of 40 hours per week for 16 weeks of supervised work experience in an approved coaching setting, jointly supervised by a University Faculty member and a supervisor from the assigned organization. May be in a paid or volunteer capacity. Note: May not be taken if student is full-time employed. Letter grade only (A-F). Course fee may be required.

594./494. Exercise Science Internship (3)
Prerequisites: Upper division or graduate standing with a grade of “B” or better in KIN 300 for a biomechanics internship or KIN 301 for an exercise physiology internship or KIN 312 for a motor control and learning internship. Consent of instructor required prior to registration. Provides a minimum of 120 hours of practical experience in applying exercise science concepts in a fieldwork setting. Will provide such experiences as conducting the biomechanical/physiological exercise testing and/or leading the exercise training of selected subject populations such as patients undergoing cardiac rehabilitation, asymptomatic adults, and athletes. Upper-division undergraduate students register in KIN 494; Graduate students register in KIN 594. Letter grade only (A-F). May be repeated to a maximum of 6 units. Course fee may be required.

595./495. Supervised Laboratory Methods (1-3)
Prerequisites: Upper division or graduate standing and consent of instructor. Experience in the organization of and methods for a laboratory in kinesiology and physical education. Includes assisting students with their experiments and laboratory reports. Undergraduates register in KIN 495; graduates register in KIN 595. A written report is required for KIN 595 students. May be repeated to a maximum of 4 units. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open for credit to graduate students with credit in KIN 495. (Conference 1 hour, laboratory 2 hours per unit) May be repeated to a maximum of 4 units.

596. Practicum in Physical Education Pedagogy (3)
Prerequisites: Graduate standing; admission to the Master of Arts Program in Pedagogical Studies. Students are required to evaluate their teaching and provide documentation that they are addressing all of the physical education standards for individuals ages 3-18 that have been established by the National Board for Teacher Certification (NBPTS). Letter grade only (A-F).

597. Independent Research (1-3)
Prerequisites: Consent of Kinesiology faculty member and graduate advisor. Independent research under the guidance of a faculty member. Varied learning activities utilized to achieve competency related to Physical Education not offered in regular classes. Written report required. Letter grade only (A-F). (Independent Study)

630. Seminar in Motor Learning (3)
Prerequisites: KIN 312 and KIN 696 (may be taken concurrently). Identification and analysis of motor learning principles and theories applicable to training, learning, and rehabilitation in sport, physical education, recreation, and therapeutic settings.

633. Seminar in Sport Psychology (3)
Prerequisite: KIN 339 or consent of instructor. Study of psychological theories and their relationship to human behavior in sport and other physical activity settings.

638. Seminar in Trends in Adapted Physical Education (3)
Prerequisites: KIN 537 or equivalent. An examination and analysis of the current trends in Adapted Physical Education.

671. Seminar in Current Trends and Issues in Kinesiology (3)
Prerequisite: Graduate standing. Examines current trends and issues in Kinesiology, develop and defend personal perspective on significant issues, and identify problems and develop plans for problem-solution in organizational/professional contexts. Letter grade only (A-F).

694. Capstone in Kinesiology (3)
Prerequisite: KIN 696 and admission into a Kinesiology graduate program. Focuses on the process, production, and presentation of research projects in Kinesiology. Letter grade only (A-F).

695. Seminar in Professional Literature (3)
Prerequisites: Graduate standing; admission into the Graduate Program in Sport Management Critical analysis and synthesis of professional literature in Kinesiology. Professional portfolio required to be submitted during the class. Required of all candidates not electing thesis option.

696. Research Methods and Statistical Analysis (3)
Prerequisites: Undergraduate major in Kinesiology or related field, undergraduate Statistic course or equivalent. Methodological approaches to contemporary problems in Kinesiology, including research design, data collection and analysis, and application of descriptive and inferential statistics.

697. Directed Studies (1-3)
Prerequisites: KIN 696 and advancement to candidacy. Research in an area of specialization under the direction of a faculty member.

698. Thesis/Project (1-6)
Prerequisites: KIN 696 and advancement to candidacy. Planning, preparation and completion of an approved thesis/project. May be repeated to a maximum of 6 units with same topic in different semesters.

699. Selected Topics in Kinesiology (3)
Intensive study of salient problems of current professional importance to experienced physical educators. May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

Athletic Training Courses (ATEP)

LOWER DIVISION

207. Prevention and Care of Athletic Injuries (3)
Prerequisites: Current certification in CPR, AED, and First Aid. Certification must include Adult, Child, and Infant CPR; Conscious and Unconscious Choking for victims of all ages; Automated External Defibrillator (AED), and Basic First Aid.
Corequisite: KIN 201
Principles and techniques of the prevention and care of common athletic injuries.
Not open for credit to students with credit in KIN 207. (Lecture 2 hours, Activity 2 hours).

UPPER DIVISION

304. Clinical Aspects of Athletic Training (3)
Prerequisites: Admission to the Athletic Training program and consent of instructor.
Principles and techniques of related clinical concepts applicable to the athletic training setting. Open to Kinesiology majors in athletic training. Letter grade only (A-F). Not open for credit to students with credit in KIN 304. (Lecture 2 hours, Activity 2 hours).

306. Medical Aspects of Athletic Training (3)
Prerequisites: ATEP 490B.
Principles and techniques of related medical concepts applicable to the athletic training setting.
Open to Kinesiology majors in athletic training or consent of instructor. Letter grade only (A-F). Not open for credit to students with credit in KIN 306.

308A. Athletic Training Evaluation I (3)
Prerequisite(s): ATEP 304.
Study of athletic training clinical skills required for assessment of pathologies to the lower extremity and lumbar spine. Integrate anatomical knowledge and evaluation techniques to provide a basis for critical decision-making in injury management.
Open to Kinesiology majors in Athletic Training or consent of instructor. Letter grade only (A-F). Not open for credit to students with credit in KIN 308A. (Lecture 2 hours, Activity 2 hours)

308B. Athletic Training Evaluation II (3)
Prerequisite: ATEP 308A.
Study of athletic training clinical skills required for assessment of pathologies to the head, face, upper extremity, and cervical spine. Integrate anatomical knowledge and evaluation techniques to provide a basis for critical decision-making in injury management.
Open to Kinesiology majors in Athletic Training or consent of instructor. Letter grade only (A-F). Not open for credit to students with credit in KIN 308B. (Lecture 2 hours, Activity 2 hours)

309. Developmental and Therapeutic Exercise (3)
Prerequisites: KIN 300, KIN 301 or consent of instructor.
Principles, techniques, and application of therapeutic exercise programs for managing musculoskeletal conditions. Open to Kinesiology majors in Athletic Training and Fitness or consent of instructor. Letter grade only (A-F). Not open for credit to students with credit in KIN 309. (Lecture 2 hours, Activity 2 hours).

310. Therapeutic Approaches in Athletic Training (3)
Prerequisite(s): ATEP 304.
Theory and application of therapeutic modalities and exercise rehabilitation commonly used in athletic training programs.
Not open for credit to students with credit in KIN 310. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours).

407. Management Strategies in Athletic Training (3)
Prerequisite(s): ATEP 490B.
Professional issues, administration, and management strategies of athletic training programs.
Letter grade only (A-F). Not open for credit to students with credit in KIN 407.

490A. Clinical Education in Athletic Training (2)
Prerequisites: Consent of instructor and successful completion of ATEP 304; satisfactory completion of CSULB Athletic Training Program Health and Safety requirements; and satisfactory completion of CSULB Athletic Training Program Technical Standards Form.
First of four semesters. Clinical experiences with formal instruction and evaluation of the Athletic Training Education Competencies. Weekly campus clinical education meeting. Preceptor supervised clinical education (Clinical hour requirement: Minimum of 250 hours / Maximum of 400 hours).
Letter grade only (A-F). Not open for credit to students with credit in KIN 490A. Course fee may be required.

490B. Clinical Education in Athletic Training (2)
Prerequisites: Consent of instructor and successful completion of ATEP 490A.
Second of four semesters. Continuation of clinical experiences with formal instruction and evaluation of the Athletic Training Education Competencies. Weekly campus clinical education meeting.
Preceptor supervised clinical education (Clinical hour requirement: Minimum of 250 hours / Maximum of 400 hours).
Letter grade only (A-F). Not open for credit to students with credit in KIN 490B. Course fee may be required.

490C. Clinical Education in Athletic Training (2)
Prerequisites: Consent of instructor and successful completion of ATEP 490B.
Third of four semesters. Continuation of clinical experiences with formal instruction and evaluation of the Athletic Training Education Competencies. Weekly campus clinical practicum meeting.
Preceptor supervised clinical education (Clinical hour requirement: Minimum of 250 hours / Maximum of 400 hours).
Letter grade only (A-F). Not open for credit to students with credit in KIN 490C. Course fee may be required.

490D. Clinical Education in Athletic Training (2)
Prerequisites: Consent of instructor and successful completion of ATEP 490C.
Fourth of four semesters. Continuation of clinical experiences with formal instruction and evaluation of the Athletic Training Education Competencies. Weekly campus clinical practicum meeting.
Preceptor supervised clinical education (Clinical hour requirement: Minimum of 250 hours / Maximum of 400 hours).
Letter grade only (A-F). Not open for credit to students with credit in KIN 490D. Course fee may be required.

490E. Clinical Education in Athletic Training (2)
Prerequisites: Consent of instructor and successful completion of ATEP 490D.
Clinical experiences designed to advance knowledge and skills to become a professional (entry level) certified athletic trainer.
Preceptor supervised clinical education (Clinical hour requirement: Minimum of 250 hours / Maximum of 400 hours).
Letter grade only (A-F). Not open for credit to students with credit in KIN 490E. Course fee may be required.

491. Seminar in Athletic Training (1)
Prerequisites: Consent of instructor and successful completion of ATEP 490C. Corequisite: ATEP 490D.
Strategies and focus on the acquisition and application of knowledge and skills for integration to clinical practice to transition from a student to professional. Students gain understanding of the Athletic Training Education Competencies, Standards of Practice, National Athletic Trainers Association, Inc., CAATE, and the BOC certification process for athletic trainers.
Letter grade only (A-F).
LATIN AMERICAN STUDIES
College of Liberal Arts

Directors: Norma Stoltz Chinchilla, Jayne Howell
Phone: (562) 985-4760, (562) 985-5192
Website: http://www.cla.csulb.edu/departments/elas

Assistant Director: Alicia del Campo

Advisors:
Jayne Howell
Telephone: (562) 985-5192
Office: FO3 312
Alicia Del Campo
Telephone: (562) 985-2704
Office: AS 331
Claire Martin
Telephone: (562) 985-4638

Affiliated Faculty: Luis Arroyo (Chicano and Latino Studies), Emily Berquist (History), Norma Stoltz Chinchilla (Women's, Gender, and Sexuality Studies/Sociology), Alejandra Cox Edwards (Economics), Alicia Del Campo (Romance, German, Russian Languages and Literatures), Caitlin Fournett (International Studies), Antonia Garcia-Crozco (Chicano and Latino Studies), Bonnie Gasior (Romance, German, Russian Languages and Literatures), Liesl Haas (Political Science), Jayne Howell (Anthropology), Gary Hytrek (Sociology), Javier Lopez-Zetina (Health Sciences), Claire E. Martin (Romance, German, Russian Languages and Literatures), Carlos Piar (Religious Studies), Heather Rae-Espinosa (Human Development), Josué Rodriguez (Communication Studies), Victor Rodriguez (Chicano and Latino Studies), José Sánchez (Film and Electronic Arts), Anna Sandoval (Chicano and Latino Studies), Carlos Silveira (Art Education), John Tsuchida (Asian and Asian American Studies)

Certificate in Latin American Studies
This certificate offers students, with a baccalaureate degree in any field, an opportunity to supplement their education with a focus on the interdisciplinary study of Latin America. Courses used to meet this certificate may be counted also, where applicable, toward General Education requirements, and the major or minor requirements of the cooperating departments. Recommended: successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to the student’s area of concentration of the equivalent fluency as determined by the program advisor.

Requirements
The following are the requirements for the Latin American Studies Certificate.

1. Consultation with the program advisor, including formal declaration of the Certificate, and application for graduation.
2. Completion of 24 units distributed as follows:
   A. Core (required of all students).
      Take one of the following:
      LAS/HIST/SOC 161; SPAN 445
   B. Electives; 18 units from the following courses, selected from at least two disciplines:

Minor in Latin American Studies
This minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of Latin America. Courses used to meet this minor requirement may be counted also, where applicable, toward General Education requirements, and the major or minor requirements of the cooperating departments. The successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to the student’s area of concentration of the equivalent fluency as determined by the program advisor is strongly recommended.

Requirements
The following are the requirements for the Latin American Studies minor.

1. Consultation with the program advisor, including formal declaration of the minor, and application for graduation.
2. Completion of 21 units distributed as follows:
   A. Core (required of all students).
      Take one of the following:
      LAS/HIST/SOC 161; SPAN 445
   B. Electives; 18 units from the following courses, selected from at least two disciplines:

*Special Topics and Independent Study courses in the area of Latin American Studies (including Short Term Study Abroad) must be approved by the advisor.
Courses (LAS)

LOWER DIVISION

161. Introduction to Latin American Studies (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
Interdisciplinary overview of history, society, and culture in Latin American – Mexico, Central America, the Caribbean, and South America. Examines political, economic, social and cultural conditions that have produced conflict, change, and continuity in Latin America over the last five hundred years.
Same course as HIST 161 and SOC 161. Not open for credit to students with credit in HIST 161 and SOC 161.
LEGAL STUDIES
College of Liberal Arts

Director: Jason Whitehead (Political Science)
Email: Jason.Whitehead@csulb.edu
Telephone: (562) 985-4712
Website: http://www.cla.csulb.edu/departments/polisci/

Certificate in Legal Studies
This certificate is designed for students who are interested in the study of law as a cultural product and as a field of critical inquiry. It is not a professional program in para-legal education. The certificate may be earned in conjunction with any baccalaureate degree. Courses taken in the program may be used to satisfy major, minor, other credential or general education requirements. No more than 12 units, however, may be in the candidate's major.

The Legal Studies Certificate may be earned concurrently with or following the award of the baccalaureate degree from CSULB or another accredited institution. Please be aware that this program is not eligible for Financial Aid unless pursued concurrently with a degree program.

Requirements
Twenty-four total units distributed as follows:

1. Three units which must include one of the following:

2. Twenty-one units selected from the Legal Studies Courses listed below. The courses taken in the program must be from a minimum of three departments. The selection of courses is made by the student in consultation with the adviser in the program.

3. Optional Project Paper (3 units which can be included as part of the 21 units required). To be written during the senior year under the supervision of a faculty member participating in the program. The paper can be either an exploratory project (in which a subject is researched in a detailed and original manner) or an analytic effort (where fewer sources are used but the discussion of the material is developed more fully).

Legal Studies Courses
ASAM 346; AFRS 332; AIS 485; BLAW 220, BLAW 320/520; CHLS 362; CLSC 410; COMM 441; CRJU 301, CRJU 340, CRJU 350, CRJU 420, CRJU 430; ECON 355; HIST 308, HIST 479, HIST 480, HIST 489; JOUR 430; PHIL 352, PHIL 451, PHIL 552; POSC 311, POSC 312, POSC 322, POSC 376, POSC 412, POSC 414, POSC 423, POSC 424; PSY 495; SOC 342; SW 350; WGSS 308.
LIBERAL ARTS, COLLEGE OF

Dean: David Wallace
Associate Dean: Beth Manke
Associate Dean: Daniel J. O’Connor
Director, Facilities Planning and Technology: Chris Burnett
Director of Research: Kim Vu
Director of Development: Howie Fitzgerald
Administrative Services Manager: Terie Bostic
Director, Advising and Teaching Liberal Arts Students (ATLAS): Bron Pellissier
Coordinator, Student Life and Development: Anna Nazarian-Peters (562) 985-8528
Executive Assistant to the Deans: Valerie Christian
Educational Policy/Curriculum Coordinator: Julie Ortiz
Fiscal Coordinator: Joyce Morte
College Office: McIntosh Humanities Building, Room 209
Telephone: (562) 985-5381
FAX: (562) 985-2463
Website: http://www.cla.csulb.edu

Credential Advisors
English - Kathleen Keirn (985-4215)
Italian, French, German, Spanish - Cynthia Leathers (985-2200)
Japanese - Hiroko Kataoka (985-4030)
Latin - Kathryn Chew - (985-5810)
Social Science - Tim Keirn (985-4428)

Introduction
The College of Liberal Arts provides courses in the Humanities and Social Sciences for all university students, as well as for majors in its disciplines. The College is also responsible for much of the General Education required of all students. The College of Liberal Arts is the center of the university’s commitment to developing greater knowledge and understanding of international and multicultural issues in the contemporary world. In teaching students, CLA faculty aim high to inspire them to continue learning, to celebrate diversity, and to engage the world.

Departments and Programs
- Africana Studies
- American Indian Studies
- American Studies
- Anthropology
- Asian and Asian American Studies
- Bachelor of Arts in Liberal Arts Completion Program
- Chicano and Latino Studies
- Classics
- Communication Studies
- Comparative World Literature
- Economics
- Environmental Science and Policy
- French and Francophone Studies
- Geography
- German
- Global Migration Studies
- History
- Human Development
- International Studies Program
- Italian
- Japanese
- Jewish Studies
- Journalism and Mass Communication
- Latin American Studies
- Legal Studies
- Linguistics
- Master of Science in Geographic Information Systems
- Medieval and Renaissance Studies
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Romance, German, Russian Languages and Literatures
- Sociology
- Spanish
- Women’s, Gender, and Sexuality Studies

Centers
- Center for the Advancement of Philosophy in the Schools
- Global Studies Institute
- Center for European Studies
- Center for First Amendment Studies
- The George C. Graziadio Center for Italian Studies
- Luster E. and Audrey Nichol Hauth Center for Communication Skills
- The Center for Medieval and Renaissance Studies
- Center for Human Factors in Advanced Aeronautic Technologies
- The Center for Usability in Design and Accessibility
- Yadunandan Center for India Studies
- Institute for the Study of Judeo-Christian Origins

Programs at a Glance
Bachelor of Arts:

Master of Arts
- Anthropology, Asian Studies, Communication Studies
- Economics, English, French and Francophone Studies, Geography, German, Global Logistics, History, Italian Studies, Linguistics, Philosophy, Political Science, Psychology, Religious Studies, Sociology, and Spanish
Master of Fine Arts in Creative Writing
Master of Science in Psychology

Certificates:

Minors:

Language Courses:
- Arabic, Chinese (Mandarin), Cambodian (Khmer), French, German, Greek, Hebrew, Italian, Japanese, Korean, Latin, Russian, Spanish, and Swahili, Tagalog, Vietnamese.

Single Subject Teaching Credentials:
- English, French, German, Italian, Japanese, Latin, Spanish, and Social Science.

Students planning to teach these subjects in secondary schools are strongly advised to consult the Credential Advisor in the appropriate program as early as possible so that they fulfill subject matter preparation requirements while completing an undergraduate major.

Student Activities

Most of the departments in the College of Liberal Arts have either a student association or honors organization which provides students with a program of activities. Students should contact the department of their major to inquire about the kinds of organizations available to them or contact the College Coordinator for Student Life and Development at 985-5814.

The College and Associated Students promote the College Student Council with its representation from each department acting as liaison between the College administration, faculty, and members of the College’s student body. The Student Council provides a forum for the development of student leadership skills.

Internships

The College of Liberal Arts offers internships with on- and off-campus cooperating organizations designed to provide students with practice in the field under supervision. Many individual departments also offer discipline-based internships for advanced students.

Bachelor of Arts in Liberal Arts (120 units)

This program is offered only through College of Continuing and Professional Education at a higher tuition rate.

The B.A. in Liberal Arts is a degree completion program designed to provide working adults who have accrued some college credits with an alternative delivery format that is more conducive to their personal and professional lives, providing a stronger possibility of graduation. The program is designed in a cohort format which provides students opportunities for networking as well as an environment where students’ shared interests, knowledge, and skills enhance the learning experience for all. The degree will be in the Liberal Arts, an area that is general enough to support a wide variety of transferable units as well as support students with wide-ranging career interests.

This program is designed for the convenience and ease of access for the working adult. The majority of the classes will be taught face-to-face on the CSULB campus on Wednesdays and Saturdays. The basic core of courses will occasionally be coupled with a class being offered partially or entirely online. The online courses will be drawn exclusively from the list of those courses previously approved through the normal University curriculum review process.

Admission Requirements

- Current transfer requirements for non-impacted majors (Minimum GPA of 2.0 in all transferable units attempted and good standing at last college attended).
- Complete with a "C" or better by the end of the prior Spring term for Fall admission or by the end of the prior Summer term for Spring admission the CSU GE requirements in Written Communication, Oral Communication, Critical Thinking, and Mathematics/Quantitative Reasoning.
- Complete a minimum of 30 semester units, or 45 quarter units, of C or better in courses approved to meet CSU General Education requirements, or be GE Certified for all Lower Division General Education requirements of the University.
- Minimum of 72 units and at least 2 units from a four-year school.
- Essay of at least 1000 words on why the student wants to major in the Liberal Arts and what the student hopes to achieve by completing the degree. The essay should explicitly address what the student hopes to achieve in terms of the goals for student learning outcomes of the curriculum (as detailed in #3, below). This essay is the first element of the assessment plan for the degree program, and each essay will be reviewed by members of the Advisory Board and the Program Director.

Program Requirements

1. A minimum of 48 upper-division units, with at least four courses (12 units) in each of the Three Areas below.
2. Three units in CLA 499: Directed Studies: Professional Portfolio. (May be repeated for a maximum of 6 units.)
3. Remaining units (9) selected from any of the three areas below.

Area I: Oral and Written Communication
- COMM 334 Business & Professional Communication (3)
### Courses (C/LA)

#### LOWER DIVISION

**190. Selected Topics in Liberal Arts (1-6)**

Topics of special interest in the liberal arts. May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the *Schedule of Classes.*

**195. Introduction to the Learning Community-Transition to College Success (1)**

Prerequisites: Open to entering freshmen in the College of Liberal Arts.

Freshman seminar to promote student engagement in university life. Articulates expectations of the university and faculty, and encourages personal responsibility. Students will explore options regarding the choice of a major and career, and how to develop a personal academic plan. Offered fall semesters only.

**230. The Home in Comparative Perspective (3)**

Prerequisite: GE Foundation requirements.

Explores how the term “home” has been deployed in a number of different historical, political, social, economic, and geographical contexts. Analysis of primary documents and secondary texts. Conduct independent research and also explore personal meanings associated with the term “home.”

**296. Introduction to Research Methods (3)**

Prerequisite: GE Foundation requirements or consent of instructor.

Introduces topics for inquiry and analysis in behavioral and social science research. Historical events shaping current ethical standards for research guide research design, analysis, and reporting. Students learn observation and experimentation, hypotheses formulation and testing, measurement, analysis, and reporting.

Letter grade only (A-F). (3 hours lecture). Same course as HHS 296. Not open for credit to students with credit in HHS 296.

#### UPPER DIVISION

**305. British Life and Culture (3)**

Offers in-depth information on a wide range of social, artistic, and intellectual issues relevant to contemporary England. Although course is geared to students participating in the London Semester Program, materials covered are closely related to many topics covered in classes offered during students' other work on campus.

Credit/No Credit grading only.

**302. Pre-Law Preparation (3)**

Intensive workshop for students considering law school. Choosing a legal career; law school realities; considering law schools; preparing for law school; application procedures; preparing application documents; admissions and financial aid decisions; job prospects. Both group workshops and individual advising included.

Credit/No credit grading.

**361. Scientific Research Communication (3)**

Prerequisite: G.E. foundation courses; score of 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Introduction to technical writing for students pursuing research careers. Accessing and using research literature. Writing technical and research reports for various purposes and audiences. Oral presentation of research and scientific information. Includes intensive writing.

Letter grade only (A-F). Same course as HHS 361, ENGR 361, and NSCI 361. Not open for credit to students with credit in HHS 361, ENGR 361, or NSCI 361.

**490. Selected Topics in Liberal Arts (1-3)**

Topics of special interest in the liberal arts for intensive study. May be repeated to a maximum of 9 units with different topics. Topics announced in the *Schedule of Classes.*

**A. Student Success Seminar**

Prerequisite: Must have completed 30 units.

Student leaders selected for the College of Liberal Arts student success program will review best practice approaches and determine plans for assisting incoming students with their...
transition to the university. Offered in the fall semester.

B. Making a Difference with Leadership
Prerequisite: Must have completed 30 units.
Examines leadership from theoretical and practical perspectives, including trait, behavioral and contingency models. Focuses on skills essential for creating organizations in which people can develop their potential as leaders. Topics include: leadership styles, communication, motivation, decision-making, group dynamics, integrity, teams, culture, diversity, and change. Offered Fall, Spring.

491. Selected Topics in Liberal Arts (2)
Topics of special interest in the liberal arts for intensive study. Topics announced in the Schedule of Classes.

492. Liberal Arts Internship (3)
Prerequisite: Upper division standing and declared liberal arts major (or approval of instructor).
Supervised participation in a career-related setting with a focus on the development of professional skills and career-specific competencies. Work in the field is supplemented by seminar discussion.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

496. Advanced Behavioral Research Methods (3)
Prerequisite: HHS361 or CLA361 or ENGR361 or NSCI361 or consent of instructor.
This course is designed to provide an in-depth knowledge of scientific research, emphasizing connection between research design and statistical analyses. The course covers literature review, hypothesis generation, types of research designs and conceptual approach to data analyses.
Letter Grade Only (A-F)

496A./596A. Interdisciplinary Research Seminar (3)
Prerequisite: Consent of instructor.
Intensive reading and discussion of the literature, methods and current issues in interdisciplinary topic in humanities and social sciences.
May be repeated to a maximum of 6 units with different topics in different semesters.

496B./596B. Interdisciplinary Research Seminar (3)
Prerequisite: C/LA 496A and consent of instructor.
Intensive research on interdisciplinary topic in humanities and social sciences.
May be repeated to 6 units with different topics in different semesters.

499. Directed Studies: Professional Portfolio (1-3)
Prerequisite: Senior Standing in Liberal Arts Major; and consent of instructor.
In consultation with instructor, qualifying students assemble a portfolio of Liberal Arts coursework and readings illustrating their understanding and overview of a Liberal Arts education. Capstone-level reflection and assessment on completion of the major.
Credit/No Credit grading only. May be repeated to a maximum of 6 units in the same semester.

GRADUATE LEVEL

590./490. Selected Topics in Liberal Arts (1-3)
Topics of special interest in the liberal arts for intensive study. May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes.
Library Studies
College of Education
Chair: Jessica Pandya
Advisors: Karie Macdonald, Aleah Garnica
Program Office: ED1-9
Telephone: (562) 985-8187
Faculty: Nat Hansuvadha, Timothy Keirn, Daniel J. O'Connor, Jessica Pandya
Office Coordinator: Estela Montiel
Teacher Preparation Advising: (TPAC) ED1-67,
Telephone: (562) 985-1105
View the College of Education website at www.ced.csulb.edu

Bachelor of Arts in Liberal Studies
(120 units)

The Liberal Studies major provides a rich, rigorous cross-disciplinary liberal arts program of study. There are two programs in the major: 1) The Integrated Teacher Education Program (ITEP) is for students intending to become teachers who wish to combine subject matter preparation for elementary teaching with coursework leading to a Multiple Subject teaching credential; 2) Track I is for students who seek subject matter preparation for elementary teaching as preparation for a post-baccalaureate credential program.

General Education and the Liberal Studies Major

The General Education requirements for students majoring in Liberal Studies are unique. The Liberal Studies program is not only an approved major, but also an approved alternate general education program. In completing the Liberal Studies major, students concurrently satisfy their general education requirements. Students changing to another major from Liberal Studies, however, will be subject to the standard university General Education requirements and will want to consult the University Center for Undergraduate Advising for General Education advisement.

The Liberal Studies Program

The Liberal Studies Integrated Teacher Education Program (ITEP) combines the study of academic subject matter for elementary school teaching with professional preparation, fieldwork, and student teaching. Successful completion of ITEP includes both a Bachelor of Arts degree and a Multiple Subject teaching credential.

The Liberal Studies Track I program is designed for those students who wish to pursue a Bachelor of Arts degree to prepare them in the academic subject areas relevant to elementary and special education teaching. Track I is an approved pre-professional program of subject matter preparation consistent with the standards established by the California Commission on Teacher Credentialing.

Integrated Teacher Education Program

Bachelor of Arts in Liberal Studies

Multiple Subject Credential Cross-Cultural and Academic Development Emphasis (code 200)

The Integrated Teacher Education Program (ITEP) combines the study of academic subjects aligned to California standards for the K-8 curriculum with professional preparation courses and field experiences leading to a Multiple Subject Credential.

Upon successful completion of the program, students will receive both a Bachelor of Arts in Liberal Studies and a Preliminary Multiple Subject Credential. Within the Integrated Teacher Education Program there are 102 units of required baccalaureate-level coursework and 34 units of credential-specific coursework.

Students in the ITEP program who do not advance to the Credential portion of the program will be eligible to change majors into the Track I program and receive a B.A. in Liberal Studies and may apply for admission to the post-baccalaureate Multiple Subject Credential Program.

There are multiple pathways to the teaching profession. ITEP is designed for students who begin their undergraduate education at CSULB or who transfer into the University in pursuit of both a baccalaureate degree as well as a Multiple Subject teaching credential. Prospective credential candidates who already hold a bachelor’s degree, or who need information about other pathways and options in teacher credentialing, should refer to the sections of this catalog which describe programs in Teacher Education, Single Subject Teacher Education, and Advanced Studies in Education and Counseling. Further information about teacher preparation programs can also be obtained from the College of Education at (562) 985-1105 or by e-mail: cedinfo@csulb.edu or online at www.ced.csulb.edu.

Urban Dual Credential Program (UDCP)

A new pathway in ITEP has been approved in the college. Students will earn Multiple Subject and Education Specialist credentials with their B.A. in Liberal Studies in 135 units. For more information, contact the Teacher Preparation and Advising Center at (562) 985-1105.

General Education and the Integrated Teacher Education Program

As with other Liberal Studies majors, students in the Integrated Teacher Education Program have unique General Education requirements. ITEP is both an approved major and an approved alternate General Education program. ITEP students receive their General Education advisement within the Liberal Studies office. In completing ITEP, students concurrently satisfy their General Education requirements. Students changing their major from ITEP to a major other than Liberal Studies, however, will be subject to
the standard University General Education requirements and will want to consult the University Center for Undergraduate Advising for their General Education advisement.

The ITEP Curriculum

The ITEP curriculum has two interrelated components. Students complete required coursework in the Liberal Studies Core and they complete ITEP Credential Coursework in the methodology of teaching, including student teaching. Admission to this final, credential portion of the program requires that students apply and be accepted into the Multiple Subject Credential Program at CSULB. In addition, a minimum of 125 hours of service learning, coordinated by the SERVE Program in the College of Education, must be completed prior to graduation. All courses in the Liberal Studies Core must be completed with a grade of "C" or better. All ITEP Credential Coursework must be completed with a GPA of 3.0 or higher and no individual grade lower than "C."

Admission Under Impaction

Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Admission to the Multiple Subject Credential

Prior to enrollment in credential methods courses, ITEP students must be formally admitted into the Multiple Subject Credential Program (MSCP). Students should apply to the MSCP during the semester prior to enrolling in method courses. All candidates are required to comply with all program policies and procedures detailed on the MSCP website at www.ced.csulb.edu/mscp. Pre-program advisement and brochure materials are available in the MSCP website at www.ced.csulb.edu/mscp. ITEP information meetings are held each semester. See schedule at www.ced.csulb.edu/mscp. Applicants must:

1. Complete EDEL 200 with a minimum grade of "B."
2. Attend a grade point average of at least 2.67 in all baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester or 90 quarter units attempted.
3. Complete and pass an interview with department faculty.
4. Submit two letters of recommendation.
5. Submit a typed personal statement describing why you have chosen teaching as a career, what you hope to accomplish as a teacher, and how you view the role of the teacher.
6. Submit a negative tuberculosis skin test or chest X-ray taken within the last three years. Tuberculosis clearance must be valid through student teaching.
7. Submit one photocopy of all university and/or college transcripts.
8. Submit proof of having taken the California Basic Educational Skills Test (CBEST). Note: You must take all three parts of the test. (Passage of the exam is required to advance to student teaching.) For alternatives to CBEST contact the Teacher Preparation Advising Center.
9. Demonstrate proficiency in reading and writing English by (1) attaining the minimum passing score of 37 on the reading portion of the CBEST and by (2) attaining the minimum passing score of 37 on the writing portion of the CBEST exam. (Passage of CBEST is required to advance to student teaching.) For alternatives means of demonstrating proficiency in reading and writing English contact the Teacher Preparation Advising Center.
10. Attach a copy of a Certificate of Clearance, or a photocopy of a California emergency/substitute teaching permit.
11. Demonstrate ability to communicate orally in English at the level required of public school teachers by demonstration of English production skills in the course EDEL 380 (EDEL 200 for ITEP candidates) and through an oral interview with department faculty. In the case of candidates for a Bilingual Authorization Multiple Subject Credential, there is a bilingual interview requirement in English and the target language.
12. Demonstrate character and personality traits that satisfy the standards of the teaching profession and suitable aptitude for teaching in public schools through the application documentation, the personal interview, and performance in the course EDEL 200. Candidates must continue to demonstrate appropriate character and personality traits through completion of the program.
13. Submit the application packet, including documentation, by April 1 to begin pedagogy courses in summer, June 1 to begin pedagogy courses in fall terms, and November 1 to begin pedagogy courses in winter or spring terms. Applications will accepted after the deadline on a space available basis.

The Liberal Studies Core

A minimum of 102 units distributed in Areas I, II, III, IV, V, and VI. No Core classes may be taken Credit/No Credit.

Area I: Language Arts (minimum 22 units) All courses in the Liberal Studies Core must be completed with a grade of "C" or better.

Group 1. Written Communication:
Choose one course from: ASAM 100, AFRS 100, CHLS 104, ENGL 100

Group 2. Oral Communication:
Choose one course from: COMM 130, COMM 335

Group 3: Survey of Literature:
Choose one course from: CWL 100; ENGL 180, ENGL 250A or ENGL 250B, ENGL 270A or ENGL 270B, ENGL 375

Group 4: Applied Composition: Choose one course from:
ENGL 309
Prerequisites: None.
OR
ENGL 300
Prerequisites: GE Foundation requirements and upper-division standing.

Group 5. Language Acquisition:
Choose one course from: CD 329, EDSP 454, LING 329

Group 6. Children’s Literature:
Choose one course from: AFRS 415, COMM 352, ENGL 481

Group 7. Language Arts Capstone: Take LST 400
Prerequisites: Limited to Liberal Studies majors who have completed all Area I Core requirements with a "C" or better grade, or consent of department chair.
Area II: Mathematics (minimum 12 units)
Group 1. Real Numbers: Take MTED 110
   Prerequisites: ELM or ELM exemption or MAPB 11.
Group 2. Probability and Activities-Based Statistics:
   Take MTED 205
   Prerequisites: ELM or ELM exemption or MAPB 11 and
   MTED 110.
Group 3. Geometry and Measurement:
   Choose one course from: MTED 211 or MTED 312
Group 4. Mathematics Capstone: Take MTED 402
   Prerequisites: "C" or better in both MTED 110, and either
   MTED 211 or MTED 312 or the equivalent and a course in
   Critical Thinking.

Area III: Natural Science (minimum 14 units)
Group 1. Earth Science:
   Choose from: GEOL 102 and GEOL 104, or GEOL 106*  
   (*GEOL 106 is the preferred course)
Group 2. Life Science: Take BIOL 200
   Prerequisites: GE Foundation requirements.
Group 3. Physical Science: Take PHSC 112
   Prerequisites/Corequisites: One course from Category B.2 of
   GE Foundation.
Group 4. Natural Science Capstone: Take SCED 401
   Prerequisites: BIOL 200; PHSC 112; GEOL 106, or both
   GEOL 102 and GEOL 104; all with a "C" or better grade.

Area IV: History-Social Science (minimum 19 units)
Group 1. American History:
   Choose one course from: HIST 172, HIST 300
Group 2. American Institutions:
   Choose one course from POSC 100, POSC 326*,  
   POSC 391 (*POSC 326 is limited to and only required
   of students who have met the U.S. Constitution
   requirement in a state other than California or through
   Advanced Placement credit and who must meet the Title
   V California State and Local Government requirement.)
Group 3. World History and Geography:
   Take either: HIST/GEOG 250*, or HIST 211 plus GEOG  
   100 (*HIST/GEOG 250 is the preferred course)
Group 4. Multicultural Dimensions:
   Choose one course from AFRS/AIS/CHLS 215, AFRS/  
   AIS/ASAM/CHLS 319, ANTH 421/LING 425
Group 5. California History: Take HIST 473
   Prerequisites: None.
Group 6. History-Social Science Capstone: Take L/ST 471
   Prerequisite: Limited to Liberal Studies majors who have
   completed all Area IV Core requirements with a "C" or better
   grade, or consent of department chair.

Area V: Arts and Humanities (minimum 15 units)
Group 1. Music: Take MUS 180
   Prerequisites: None.
Group 2. Dance or Theater:
   Choose one course from: CWL 124, CWL 324; DANC  
   110; THEA 113, THEA 122, THEA 324
Group 3. Ethics, Values and Beliefs:
   Choose one course from: PHIL 100, PHIL 160, PHIL  
   203, PHIL 204, PHIL 405; R/ST 100, R/ST 202
Group 4. Visual Art: Take ART 300
   Prerequisites: None.
Group 5. Arts Capstone: Take L/ST 404
   Prerequisite: Limited to Liberal Studies majors who have
   completed all Area V Core requirements with a "C" or better
   grade, or consent of department chair.

Area VI: Critical Issues in Teaching and Learning (minimum
20 units)
Group 1. Teaching and Learning: Take EDEL 100
A separate application is required to advance to student teaching. Applications for student teaching must be submitted in person to the Multiple Subject Student Teaching Office one semester prior to the first assignment. Application packets are available on the College of Education MSCP website. A link may also be found on the Liberal Studies website. Deadlines for submitting applications to student teach are:

- April 1 - for Summer/Fall Student Teaching
- November 1 - for Spring Student Teaching

Students should note that these deadlines are firm. Late applications are not accepted.

**Advancement to Student Teaching Requirements**

Students must meet the following requirements to advance to student teaching:

1. Demonstration of subject-matter competence by passage of all three parts of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
2. Passage of the California Basic Educational Skills Test (CBEST) or CTC-approved alternative.
3. A negative tuberculosis skin test or chest x-ray valid through completion of student teaching.
5. Submission of a student teaching application by the appropriate deadline.

Note: Professional preparation pedagogy courses in the ITEP MSCP program may be taken prior to or concurrently with student teaching. All subject-specific pedagogy (methods) courses must be completed with a minimum cumulative grade-point average of 3.0 and no individual course grade lower than “C.”

**Bilingual Authorization for the Multiple Subject Credential**

The Bilingual Authorization track prepares Multiple Subject teachers to work in dual language classrooms, English development classrooms, or where a language other than English is required for instruction, support, and communication with parents and other professional communication. With appropriate substitutions and/or additional course work, the Bilingual Authorization may be added to the Multiple Subject Preliminary credential. Candidates must demonstrate knowledge of the target culture, specific pedagogical skills, and fluency in speaking, listening, reading and writing in the target language. Candidates are prepared for Bilingual Authorization in one of four languages: Spanish, Korean, Mandarin, or Vietnamese.

**Requirements**

Students seeking Bilingual Authorization must complete the ITEP program requirements, including the credentialing requirements. They also must fulfill the following additional Bilingual Authorization requirements:

1. Bilingual pedagogy in the language of emphasis (one of the following, 3 units):
   - Spanish: EDEL 453S – Methodology for Spanish and English Instruction in a Bilingual Setting
     Prerequisites: None.
   - Korean: EDEL 453K – Methodology for Korean and English Instruction in a Bilingual Setting
     Prerequisites: None.
   - Mandarin: EDEL 453M – Methodology for Mandarin and English Instruction in a Bilingual Setting
     Prerequisites: None.
   - Vietnamese: EDEL 453V – Methodology for Vietnamese and English Instruction in a Bilingual Setting
     Prerequisites: None.
2. Culture of emphasis (one of the following, 3 units):
   - Spanish: CHLS 340 – Latino Education in the U.S.
     Prerequisites: None.
   - Korean: EDEL 455K – Teaching the Korean American Bicultural Student
     Prerequisites: None.
   - Mandarin: EDEL 455C – Teaching the Chinese American Bicultural Student
     Prerequisites: None.
   - Vietnamese: EDEL 455V – Teaching the Vietnamese American Bicultural Student
     Prerequisites: None.
3. Language of emphasis proficiency:
   - All Bilingual Authorization candidates must demonstrate language of emphasis proficiency by passing the appropriate CSET: LOTE Subtest III (language and communication skills) prior to completion of the program. See the program advisor for recommended courses to prepare for the exam.
4. Student teaching in a bilingual classroom:
   - Bilingual Authorization candidates complete one semester of student teaching in a non-bilingual classroom and one semester in a language of emphasis classroom.

**Urban Dual Credential Program ITEP Pathway**

The Urban Dual Credential Program is a two-year, clinical program that combines the study of academic subjects aligned to Common Core State standards for the K-8 curriculum with professional preparation courses and clinical field experiences leading to both a Multiple Subject Credential and an Education Specialist Credential. Candidates with these dual credentials are authorized to teach all students in K-8 general and special education settings.

Upon successful completion of the program, students will earn a Preliminary Multiple Subject Credential and a Preliminary Education Specialist Credential in Mild/Moderate Disabilities and/or Moderate/Severe Disabilities.

Further information about the Urban Dual Credential Program can be obtained from the Teacher Preparation Advising Center in the College of Education at (562) 985-1105 or online at http://www.ced.csulb.edu/tpac

**Admission**

Students should apply during the Spring semester prior to beginning UDCP coursework. Pre-program advisement and brochure materials are available in the Teacher Preparation Advising Center (ED1-67). Applicants must:

1. Hold a Bachelor’s degree and be admitted to the University as a post-baccalaureate (credential) student. (Note that application to the University is a separate process. Apply through www.csumentor.edu)
2. Submit Urban Dual Credential Program application by the posted application deadline.
3. Attain a grade point average of at least 2.67 in all baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester or 90 quarter units attempted.
4. Complete and pass an interview with program faculty.
5. Submit two letters of recommendation, educational training, relevant teaching, and other related experiences.
6. Submit a typed personal statement describing why you have chosen teaching as a career, the training, talents and experiences you bring to teaching all students including those with disabilities, what you hope to accomplish as a dually credentialed teacher, and how you view the role of the teacher.
7. Submit a negative tuberculosis skin test taken within the last four years or chest X-ray taken within the last eight years. Tuberculosis clearance must be valid through student teaching.
8. Submit one photocopy of all university and/or college transcripts.
9. Submit proof of having taken the California Basic Educational Skills Test (CBEST). Note: You must take all three parts of the test. (Passage of the exam is required to advance to student teaching.) For alternatives to CBEST contact the Teacher Preparation Advising Center.
10. Attach a copy of a Certificate of Clearance, or a photocopy of a California emergency/substitute teaching permit.
11. Provide documentation of a structured field experience of at least 45 hours in a K-12 general education classroom setting.
12. Demonstrate ability to communicate orally in English at the level required of public school teachers by demonstration of English production skills through an oral interview with program faculty.
13. Demonstrate character and personality traits that satisfy the standards of the teaching profession and suitable aptitude for teaching in public schools through the application documentation and personal interview. Candidates must continue to demonstrate appropriate character and personality traits through completion of the program.
14. Please visit the program website for the program application form and list of required materials to be submitted.

**UDCP Program Requirements:**

Take the following UDCP credential coursework (54 units):

- **Group 1. Special Education Foundations:** UDCP 400 (2) and UDCP 414 (1)
  - Group 2. Teaching and Learning Reading and Language Arts, K-8: UDCP 410 (4) and UDCP 411 (4)
  - **Group 3. Human Development, Diversity and Equity:** EDP 301 (3), UDCP 402 (3) and EDSP 454 (3)
  - **Group 4. Teaching and Learning Mathematics, K-8:** EDEL 462 (3) and UDCP 415 (2)
  - **Group 5. Assessment of Students:** EDSP 564 (3)
  - **Group 6. Managing the Teaching and Learning Environment:** UDCP 401 (3)
  - **Group 7. Teaching and Learning History-Social Science, K-8:** EDEL 472 (3)
  - **Group 8. Teaching and Learning Science, K-8:** SCED 475 (3)

- **Group 9. Teaching and Learning Art, Health, and Physical Education:** UDCP 407 (2)
- **Group 10. Methods for Students with Moderate/Severe Disabilities:** EDSP 578 (3)
- **Group 11. Student Teaching in General Education and Special Education Settings:** UDCP 420 (Multiple Subjects) (6) and UDCP 422 (Mild/Moderate) or UDCP 423 (Moderate/Severe) (6)

Candidates will need to pass the CSET, RICA and California Teaching Performance Assessments

**Education Specialist ITEP**

**Requirements**

The Education Specialist ITEP Pathway allows students to work toward a Preliminary Education Specialist Credential while completing their MSCP ITEP requirements. Students should formally apply to the Education Specialist Credential program at the same time they apply to the MSCP. Education Specialist ITEP students must complete all ITEP program requirements, taking EDSP 454 in Area I, Group 6, and EDP 301 in Area VI, Group 4. Education Specialist ITEP students must complete all MSCP ITEP credential coursework and requirements as well with the following exception: Students will complete only one semester of student teaching in a general education classroom instead of two.

Education Specialist ITEP students will then complete all Education Specialist Preliminary credential coursework and Field Study as listed below:

- EDP 405 Classroom Management
- Prerequisites: None.
- EDSP 480 Foundations of Inclusive Education
- Prerequisite: Admission to Education Specialist Credential Program.
- EDSP 534 Collaboration and Transition
- Prerequisites: Full admittance to Education Specialist Credential Program or ITEP, and successful completion of EDSP 480.
- EDSP 564 Assessment and Evaluation
- Prerequisites: Admission to the Education Specialist Credential Program or consent of instructor.
- EDP 560 Behavior Analysis and Interventions
- Prerequisite: ED P 405.
- EDSP 577 or 578 Instructional Methods and Strategies: Mild/Moderate or Moderate/Severe
- EDSP 587B or 588B Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate or Moderate/Severe Disabilities

**TRACK I**

**Requirements**

The Track I program is both a major and an approved General Education program. No course in the Track I Core or Concentration may be taken Credit/No Credit and no course used to meet Core requirements may be counted toward the Concentration.

In addition, 125 hours of approved service-learning in an elementary or middle school must be completed prior to graduation as a means of learning about cultural diversity in the community, about current problems besetting students in the public schools, about successful intervention strategies for students needing special attention, and about promotion of individual civic responsibility.
Service Learning

The way to earn the required 125 hours of Service Learning is through participation in the Service Experience for Revitalizing Education (SERVE) program, which provides orientation and training in addition to school placements. To participate in SERVE, students must have a 2.0 grade-point average, current TB clearance, and be available for either 2 two-hour time blocks or 1 four-hour time block during public school hours over a 10 week period during the semester. For further information and the schedule for orientation and training sessions, contact the Liberal Studies office or SERVE office (ED1-17 or online at www.ced.csulb.edu).

The Liberal Studies Core

A minimum of 102 units distributed in Areas I, II, III, IV, V, and VI. No Core classes may be taken Credit/No Credit.) All courses in the Liberal Studies Core must be completed with a grade of "C" or better.

Area I: Language Arts (minimum 22 units)

Group 1: Written Communication
Choose one course from: ASAM 100, AFRS 100, CHLS 104, ENGL 100
Group 2: Oral Communication
Choose one course from: COMM 130, COMM 335
Group 3: Survey of Literature
Choose one course from: CWL 100, ENGL 180, ENGL 250A or ENGL 250B, ENGL 270A or ENGL 270B, ENGL 375
Group 4: Applied Composition
Choose one course from:
ENGL 309
Prerequisites: None.
OR
ENGL 300
Prerequisites: GE Foundation requirements and upper-division standing.
Group 5: Language Acquisition
Choose one course from: CD 329, EDSP 454, LING 329
Group 6: Children’s Literature
Choose one course from: AFRS 415, COMM 352, ENGL 481
Group 7: Language Arts Capstone: Take L/ST 400

Area II: Mathematics (minimum 12 units)

Group 1: Real Numbers: Take MTED 110
Prerequisites: ELM or ELM exemption or MAPB 11.
Group 2: Probability and Activities-Based Statistics:
Take MTED 205
Prerequisites: ELM or ELM exemption or MAPB 11 and MTED 110.
Group 3: Geometry and Measurement:
Choose one course from: MTED 211 or MTED 312
Group 4: Mathematics Capstone:
Take MTED 402
Prerequisites: "C" or better in both MTED 110, and either MTED 211 or MTED 312 or the equivalent and a course in Critical Thinking.

Area III: Natural Science (minimum 14 units)

Group 1: Earth Science:
Choose from: GEOL 102 and GEOL 104, or GEOL 106* (*GEOL 106 is the preferred course)
Group 2: Life Science: Take BIOL 200
Prerequisites: GE Foundation requirements.
Group 3: Physical Science: Take PHSC 112
Prerequisites/Corequisites: One course from Category B.2 of GE Foundation.
Group 4: Natural Science Capstone: Take SCED 401
Prerequisites: BIOL 200; PHSC 112; GEOL 106, or both GEOL 102 and GEOL 104; all with a "C" or better grade.

Area IV: History/Social Science (minimum 19 units)

Group 1: American History:
Choose one course from: HIST 172, HIST 300
Group 2: American Institutions:
Choose one course from POSC 100, POSC 326*, POSC 391 (*POS 326 is limited to and only required of students who have met the U.S. Constitution requirement in a state other than California or through Advanced Placement credit and who must meet the Title V California State and Local Government requirement.)
Group 3: World History and Geography:
Take either: HIST/GEOG 250*, or HIST 211 plus GEOG 100 (*HIST/GEOG 250 is the preferred course)
Group 4: Multicultural Dimensions:
Choose one course from AFRS/AIS/CHLS 215, AFRS/AIS/ASAM/CHLS 319, ANTH 421/LING 425
Group 5: California History: Take HIST 473
Prerequisites: None.
Group 6: History/Social Science Capstone:
Take L/ST 471
Prerequisite: Limited to Liberal Studies majors who have completed all Area IV Core requirements with a "C" or better grade, or consent of department chair.

Area V: Arts and Humanities (minimum 15 units)

Group 1: Music: Take MUS 180
Prerequisites: None.
Group 2: Dance or Theater:
Choose one course from: CWL 124, CWL 324; DANC 110; THEA 113, THEA 122, THEA 324
Group 3: Ethics, Values and Beliefs:
Choose one course from: PHIL 100, PHIL 160, PHIL 203, PHIL 204, PHIL 405; R/ST 100, R/ST 202
Group 4: Visual Art: Take ART 300
Prerequisites: None.
Group 5: Arts Capstone: Take L/ST 404
Prerequisite: Limited to Liberal Studies majors who have completed all Area V Core requirements with a "C" or better grade, or consent of department chair.

Area VI: Critical Issues in Teaching and Learning (minimum 20 units)

Group 1: Teaching and Learning: Take EDEL 100
Prerequisites: None.
Group 2: Information and Technology Competencies:
Choose one course from: ETEC 110*, ETEC 444 (*ETEC 110 is the preferred course)
Group 3: Critical Thinking:
Choose one course from: A/ST 190, COMM 131, ENGL 102, ETEC 171, HIST 101, PHIL 170, POSC 105, PSY 130
Group 4: Introduction to Education: Take EDEL 200
Prerequisites: None.
Group 5: Child Development and Learning:
Choose one course from: EDP 301, HDEV 307
Group 6: Family and School Partnerships:
Take EDSP 355A
Prerequisites: None.
Group 7: Physical Education: Take KIN 476
Track I Subject Matter Concentration
The Subject Matter Concentration requires a minimum of 12 units in one of the thematic programs of study identified below. Students may choose to pursue a Subject Matter Concentration option that allows them to complete work toward a Subject Matter Authorization.

Subject Matter Concentration Options:
- I. Language Arts
- II. Mathematics
- III. Natural Science
- IV. History-Social Science
- V. Human and Child Development
- VI. Education Studies

Courses taken to satisfy the Subject Matter Concentration requirements shall be selected by the student in consultation with the department chair or designee. Once determined, the designated courses shall be articulated in a Subject Matter Concentration Plan. Normally the plan must be submitted before the student begins to take courses in the Concentration. Subsequent modifications of the Concentration curriculum must also be approved by the department chair or designee. No Concentration course may be taken Credit/No Credit. No course used to fulfill a Core requirement may be used to fulfill a Concentration requirement.

Courses (L/ST)

111. Critical Thinking and Public Education (3)
Prerequisite: ENGL 100 or GE Composition (Area A1)
Introduction to critical thinking; analysis of historical, contemporary and global views of public education. Development of reasoning, preparation of analytical essays and oral presentations, examination of models and techniques of reasoning applied to issues in education.
Letter grade only (A-F)

400. Language Arts Capstone: Language Arts Content and Standards for Elementary Classrooms (3)
Prerequisite: Limited to Liberal Studies majors who have completed all Area I Core requirements with a "C" or better grade, or consent of department chair.
Letter grade only (A-F)

404. Visual and Performing Arts Capstone: Visual and Performing Arts Content and Standards for Elementary Classrooms (3)
Prerequisite: Limited to Liberal Studies majors who have completed all Area V Core requirements with a "C" or better grade, or consent of department chair.
Review, analysis, and assessment of K-8 California State Visual and Performing Arts Content Standards and Curriculum Framework. Understanding relationships among the arts. Emphasis on arts criticism and various broader values (historical, social, aesthetic, ethical).
Letter grade only (A-F)

471. History-Social Science Capstone: History-Social Science Content and Standards for Elementary Classrooms (3)
Prerequisite: Limited to Liberal Studies majors who have completed all Area IV Core requirements with a "C" or better grade, or consent of department chair.
Letter grade only (A-F)

Urban Dual Credential Program (UDCP)

400. Foundations of Teaching and Learning in Inclusive Settings (2)
Prerequisite: Admission to the Urban Dual Credential Program or Consent of Instructor.
Foundations in teaching and learning in inclusive, diverse schools. Discussion of professional, legal and ethical practices, multi-tiered systems of support, disability categories, and inclusive collaborative models.
Letter grade only (A-F)

401. Positive Behavior Supports (3)
Prerequisite: Admission to the Urban Dual Credential Program or Consent of Instructor.
Models and strategies of classroom management to promote student pro-social behaviors and academic growth in culturally diverse settings. School-wide models of positive behavior support and evidence-based classroom interventions to support positive behaviors for students with and without challenging behavior.
Letter grade only (A-F)

402. Equity, Access, and Inclusive Education (3)
Prerequisite: Admission to the Urban Dual Credential Program or Consent of Instructor.
Examination of historical and legal foundations and contemporary issues related to educational equity and access for underrepresented groups in U.S. public schools, including culturally responsive instruction within a Universal Design for Learning framework.
Letter grade only (A-F)

407. Artistic and Physical Education (2)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Subject specific pedagogy in health, physical education, and visual/performing arts curriculum.
Letter grade only (A-F)

410. Literacy Instruction in Inclusive Settings (4)
Prerequisite: Admission to the Urban Dual Credential Program or Consent of Instructor.
Content, methods, and assessment for teaching literacy to all students, including English language learners and students with special needs in culturally and linguistically diverse classrooms. Minimum 10 hours of fieldwork in classrooms with at least 25% of students classified as English learners and some students with disabilities.
Letter grade only (A-F)
411. Advanced Literacy Instruction and Intervention (4)
Prerequisite: Admission to Urban Dual Credential Program and successful completion of UDCP 410 Literacy Instruction in Inclusive Settings, or Consent of Instructor.
Literacy instructional materials, strategies, and curricular adaptations for gifted students, and struggling students, including English learners and students with disabilities. Evidence-based interventions (e.g., RTI, MTSS), using data for program planning, and use of technology are emphasized. Minimum 10 hours of fieldwork in classrooms with at least 25% of students classified as English learners and some students with disabilities
Letter grade only (A-F).

414. Transition in Special Education (1)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Strategies for developing effective transition for students with disabilities into, through, and beyond school.
Letter grade only (A-F)

415. Math Interventions in Inclusive Settings (2)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Math interventions for students at-risk and with disabilities. Focus on Tier 2 and Tier 3 interventions within a multi-tiered system of support.
Letter grade only (A-F)

420. K-8 Student Teaching, General Education (6)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Semester-long student teaching experience in K-8 public school general education/inclusive classroom setting.
Credit/No Credit grading only

422. K-8 Student Teaching, Special Education - Mild/Moderate Disabilities (6)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Semester-long student teaching experience in public schools serving students with identified mild/moderate disabilities in a variety of inclusive and special education settings.
Credit/No Credit grading only

423. K-8 Student Teaching, Special Education – Moderate/Severe Disabilities (6)
Prerequisite: Acceptance into the Urban Dual Credential Program or Consent of Instructor.
Semester-long student teaching experience in public schools serving students with identified moderate/severe disabilities in a variety of inclusive and special education settings.
Credit/No Credit grading only
LINGUISTICS
College of Liberal Arts

Department Chair: Malcolm A. Finney
Department Office: Psychology (PSY) 114
Telephone / FAX: (562) 985-5792 / (562) 985-2593
Website: http://www.cla.csulb.edu/departments/linguistics/

Faculty: Rebekha J. Abbuhl, Michael B. Ahland, John Attinasi (Emeritus) Michael J. Fender, Malcolm A. Finney, Nancy Hall, Robert M. Hertz (Emeritus), Alexandra M. Jaffe, Wendy Klein, Lorraine E. Kumpf, Barbara LeMaster, Xiaoping Liang (Emeritus), Carol D. Lord (Emeritus)

Advisors:
Undergraduate: Wendy Klien
Graduate: Rebekha J. Abbuhl

Administrative Coordinator: Phyllis L. Simon

Career Possibilities
English as a Second Language (ESL) Teacher • Computational Linguist • Bilingual Education Teacher • Intelligence Specialist • Researcher • Teacher • Linguist • Foreign Service Officer • Peace Corps Worker • Librarian • Interpreter • Immigration Officer • Lawyer • Philologist • Writer • Editor • Consultant (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.) Various entry-level positions in business and industry are available for graduates regardless of academic discipline.

Introduction
The department offers an undergraduate major and minor in Linguistics, a Certificate in Teaching English to Speakers of Other Languages (TESOL), and the MA with four Options: TESOL, General, Special, and Language and Culture.

Students desiring general information should contact the department office. Advisors are available for individual appointments during the Fall and Spring semesters.

Undergraduate Programs

Bachelor of Arts in Linguistics (120 units)

Requirements
Lower Division:
Take the following courses:
LING 101 Introduction to the World’s Languages (3)
Prerequisite: ENGL 100 or GE Composition (Area A1).
LING/ANTH 170 Introduction to Linguistics (3)
Prerequisite/corequisite: Any GE Foundation course.

Upper Division:
Take the following courses:
LING 325 Modern English Grammar (3)
Prerequisite: None
LING 329 Introduction to Language Acquisition (3)
Prerequisite: None
LING 420 Phonology (3)
Prerequisite: LING 170 or ANTH 170 or consent of instructor.
LING 421 Syntax (3)
Prerequisite: LING 325.

Take eight courses (24 units) from the following:
LING 301, LING 363, LING 379, LING 401, LING 413, LING 423, LING 425, LING 426, LING 428, LING 433, LING 438, LING 460, LING 470, LING 472, LING 490, or LING 499.

Students may substitute up to 6 units of relevant upper-division coursework from other departments, with permission of the Linguistics Undergraduate Advisor.

Language Requirement
Students must complete a fourth semester-level course, or demonstrate equivalent proficiency, in a language other than English. Alternatively, a student may complete two second-semester level courses in two different languages, including at least one language from outside the Indo-European family. A list of applicable courses may be obtained from the undergraduate advisor. This may require 0-16 units of coursework, depending on the language studied and the student’s initial placement level. Students with prior language experience can pass all or part of the language requirement by examination or other evidence.

Minor in Linguistics
The minor requires a minimum of 15 units.

Take LING 170 Introduction to Linguistics (3)

Take four courses from among the following (12 units)
LING 101, LING 325, LING 329, LING 363, LING 379, LING 401, LING 413, LING 420, LING 421, LING 423, LING 425, LING 426, LING 428, LING 433, LING 438, LING 460, LING 470, LING 472

Electives may also be selected from an approved list of linguistics-related classes from other departments. See the undergraduate advisor for details.

Minor in Teaching English to Speakers of Other Languages (TESOL)

Program Description
Not open to students majoring in Linguistics. This is not a credential program for public school teaching.

Requirements
Take one of the following courses (3 units):
LING/ANTH 170 Introduction to Linguistics (3)
Prerequisite/corequisite: Any GE Foundation course.
LING 425 Education Across Cultures (3)
Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.

Note: the option of LING 425 is intended primarily for English Education majors. All others are recommended to take LING 170.

Take one of the following courses (3 units):
LING 329 Language Acquisition (3)
Prerequisite: None.
LING 339 Linguistics for Cross-Cultural Academic Development (3)

Take all of the following courses (12 units):

2016-2017 CSULB Catalog • Linguistics • 611
LING 325 Modern English Grammar (3)  
Prerequisite: None.
LING 420 Phonology (3)  
Prerequisite: LING/ANTH 170 or consent of instructor.
LING 460 TESOL Composition (3)  
Prerequisite: LING 325 or consent of instructor.
LING 486 Second Language Teaching Methods (3)  
Prerequisite: LING 325 or consent of instructor.

Graduate Programs

Master of Arts in Linguistics

This program is designed both for students who wish to pursue further graduate study and those seeking a terminal degree. The program seeks to blend theoretical and applied aspects of linguistics and draws from a variety of disciplines.

The M.A. offers three options and one concentration:
1. General Linguistics Option
2. Language and Culture Option
3. Teaching English to Speakers of Other Languages
4. Special Concentration

Graduate assistantships may be available to qualified students.

Prerequisites
1. A bachelor's degree with a 3.0 GPA for the most recent 60 units;
2. 18 units of undergraduate coursework (with a grade of "C" or above in each course) as follows:
   A. Fifteen (15) units in Linguistics; the following courses or equivalent:
      LING 301 Introduction to Research Methods (3)  
      Prerequisites: LING/ANTH 170 or consent of instructor.
      LING 325 Modern English Grammar (3)  
      Prerequisite: None
      LING 329 Introduction to Language Acquisition (3)  
      Prerequisite: None
      LING 420 Phonology (3)  
      Prerequisite: LING/ANTH 170 or consent of instructor.
      LING 421 Syntax (3)  
      Prerequisite: LING 421.
   B. Three (3) units in Language Variation:
      LING 379, LING 413, LING 425, LING 426, LING 470, LING 472.

Advancement to Candidacy
1. Satisfaction of the general university requirements for advancement to candidacy, including prerequisites, the Graduation Writing Assessment Requirement (GWAR) and 3.0 GPA.
2. Completion of the language other than English requirement, either:
   A. Two courses of a language other than English at the upper-division level, or the equivalent, or
   B. Two courses of an Indo-European language and two courses of a non-Indo European language at the lower-division level, or equivalent.
3. Completion of six units of course work within the program, exclusive of any classes used to meet prerequisites.
4. Approval of the candidate’s graduate program by the Graduate Advisor, the Associate Dean for Instructional Programs of the College of Liberal Arts, and any other individuals identified by relevant university policy.
5. Advancement must take place no later than the semester before the student graduates.

Requirements
1. A minimum of 33 units of approved upper division and graduate courses for the thesis path or a minimum of 34 units of approved upper division and graduate courses of the comprehensive examination path, including
2. A minimum of 21 units at the 500 or 600 level;
3. The completion of requirements of one of the options or the Special Concentration designated in the program;
4. Completion of one of two culminating experiences (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.):
   A. A thesis and its accompanying oral defense and oral examination (LING 698, 6 units).
   B. The comprehensive examination and its accompanying graduate paper (LING 697, 1 unit).
5. A GPA of 3.00 on all courses included in the program.

Option in General Linguistics

1. Take all of the following courses (15 units):
   LING 580/ANTH 570 Field Methods (3)  
   Prerequisite: LING 420 and LING 421, or consent of instructor.
   LING 610 Historical Linguistics (3)  
   Prerequisites: LING 420 and LING 421 or consent of instructor.
   LING 620 Seminar in Syntactic Theory and Analysis (3)  
   Prerequisite: LING 421.
   LING 625 Seminar in Phonetics and Phonology (3)  
   Prerequisite: LING 420.
   LING 633 Discourse and Grammar (3)  
   Prerequisite: LING 421 or consent of instructor.
2. Take one of the following courses in language variation (3 units):
   LING 540 Sociolinguistics (3)  
   Prerequisite: Nine units of linguistics or consent of instructor.
   LING 650 Seminar in Bilingualism (3)  
   Prerequisites: LING 329 or consent of instructor.
3. Take one of the following courses in research methods (3 units):
   LING 595 Qualitative Methods (3)  
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.
   LING 596 Quantitative Methods (3)  
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.
4. Take two (for thesis route) or four (for comprehensive exam route) of the following courses (6 or 12 units):
   LING 470, LING 501, LING 533, LING 538, LING 540,
   LING 575, LING 580, LING 595, LING 596, LING 650.
5. Completion of one of two culminating experiences:
   A. A thesis and its accompanying oral defense and oral examination (LING 698, 6 units).
Option in Language and Culture

1. Take all of the following courses (12 units)
   LING 533 Ethnography of Communication (3)
   Prerequisite: Graduate standing.
   LING 540 Sociolinguistics (3)
   Prerequisite: Nine units of linguistics or consent of instructor.
   LING 625 Seminar in Phonetics and Phonology (3)
   Prerequisite: LING 420.
   LING 633 Discourse and Grammar (3)
   Prerequisite: LING 421 or consent of instructor.

2. Take one of the following courses in research methods:
   (3 units)
   LING 580/ANTH 570 Field Methods (3)
   Prerequisite: LING 420 and LING 421, or consent of instructor.
   LING 595 Qualitative Methods (3)
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.
   LING 596 Quantitative Methods (3)
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.

3. Take four (for thesis route) or six (for comprehensive exam route) of the following courses (12 or 18 units):
   LING 470, LING 501, LING 538, LING 539, LING 575, LING 580, LING 595, LING 596, LING 610, LING 650

4. Completion of one of two culminating experiences:
   A. A thesis and its accompanying oral defense and oral examination (LING 698, 6 units).
   B. The comprehensive examination and its accompanying graduate paper (LING 697, 1 unit)

Option in Teaching English to Speakers of Other Languages

Take all of the following courses (15 units):
   Take all of the following courses:
   LING 486 Second Language Teaching Methods (3)
   Prerequisites: LING 325 or consent of instructor.
   LING 539 Language Acquisition (3)
   Prerequisites: LING 329 or equivalent. Six units of linguistics or upper division psychology, or consent of instructor.
   LING 561 Second Language Curriculum Dev (3)
   Prerequisite: LING 325 or consent of the instructor.
   LING 562 Second Language Testing and Assessment (3)
   Prerequisite: LING 325 or consent of the instructor.
   LING 593 Practicum in TESOL (3)
   Prerequisite: LING 486.

Take one of the following courses in research methods:
   (3 units)
   LING 580/ANTH 570 Field Methods (3)
   Prerequisite: LING 420 and LING 421, or consent of instructor.
   LING 595 Qualitative Methods (3)
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.
   LING 596 Quantitative Methods (3)
   Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.

Take two of the following courses in language structure (6 units):
   LING 620 Seminar in Syntactic Theory and Analysis (3)
   Prerequisite: LING 421.
   LING 625 Seminar in Phonetics and Phonology (3)
   Prerequisite: LING 420.
   LING 633 Discourse and Grammar (3)
   Prerequisite: LING 421 or consent of instructor.

Take one of the following courses in language variation (3 units):
   LING 533 Ethnography of Communication (3)
   Prerequisite: Graduate standing.
   LING 540 Sociolinguistics (3)
   Prerequisite: Nine units of linguistics or consent of instructor.
   LING 610 Historical Linguistics (3)
   Prerequisites: LING 420 and LING 421, or consent of instructor.
   LING 650 Seminar in Bilingualism (3)
   Prerequisites: LING 420 and LING 421, or consent of instructor.

Students taking comprehensive exams must additionally take the following two courses (6 units):
   LING 560 TESOL Composition (3)
   Prerequisite: None.
   LING 575 Literacy and Linguistics (3)
   Prerequisite: Six units in linguistics or consent of instructor.

Completion of one of two culminating experiences:
   A. A thesis and its accompanying oral defense and oral examination (LING 698, 6 units).
   B. The comprehensive examination and its accompanying graduate paper (LING 697, 1 unit)

Special Concentration

This concentration is 12-18 units. Students electing this concentration must 1) consult with the Graduate Advisor about their proposal; 2) submit a written justification for the course of study they wish to take, including 3) a list of the classes which are proposed to meet the objectives of this special program. Both the written justification and the course list are subject to approval. Other requirements of the program (e.g. a five course core, GPA, culminating experiences, etc.) cannot be waived or altered by use of the special concentration.

Students wanting graduate credit for certain 400-level courses must consult with the Graduate Advisor before enrolling. Courses with an I suffix are not available for graduate credit.

Note: Graduate students are required to register for the higher (500-level) course whenever a course has a double number. Students may not repeat courses by taking them under different prefix designations, numbers or titles unless the course description specifically permits.
Graduate Certificate in Teaching English to Speakers of Other Languages

This certificate is open to students from any field who desire graduate level training for teaching English to speakers of other languages. While the program may be begun as an undergraduate, at least 18 units must be completed as a post-baccalaureate student.

This certificate program is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

Prerequisites

1. Baccalaureate degree with a GPA of 3.0 on last 60 units.
2. LING 325 Modern English Grammar (3) (or equivalent)

Requirements

1. Twenty-four units, including:
   A. 21 taken in residence;
   B. 18 taken as a graduate student;
   C. 12 taken at a 500-600 level.

   NOTE: Categories (A-C) combined need only equal 24 units.

2. A GPA of 3.0 in all courses included in the program.
3. Fulfill the Graduation Writing Assessment Requirement (GWAR).
4. One course in each of the following eight categories:
   A. Language Acquisition:
      LING 329 Introduction to Language Acquisition (3)
      Prerequisites: None
   B. Intermediate Level Linguistics. One course from:
      LING 420 Phonology (3)
      Prerequisites: LING 170 or ANTH 170 or consent of instructor.
      LING 421 Syntax (3)
      Prerequisite: LING 325.
   C. Cross-cultural Communication:
      LING 425/ANTH 421 Education Across Cultures (3)
      Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.
   D. Basic TESOL Methodology:
      LING 486 Second Language Teaching Methods (3)
      Prerequisites: LING 325 or consent of instructor.
   E. Curriculum:
      LING 561 Second Language Curriculum Development (3)
      Prerequisite: LING 325 or consent of the instructor.
   F. Testing and Assessment:
      LING 562 Second Language Testing & Assessment (3)
      Prerequisite: LING 325 or consent of the instructor.
   G. Specialized Methodology. One course from:
      LING 560 TESOL Composition (3)
      Prerequisite: None.
      LING 575 Literacy and Linguistics (3)
      Prerequisite: Six units in linguistics or consent of instructor.
   H. Practicum:
      LING 593 Practicum in TESOL (3)
      Prerequisite: LING 486.

   Students who have taken equivalent courses in the above categories but need units to complete certificate requirements may elect to take courses as advised.

   Students wanting graduate credit for 400-level courses which have not been approved for graduate credit by the home department must consult with the Program Director or Graduate Advisor before enrolling. Courses with an “I” suffix are not available for graduate credit, but may be used for the Certificate if they were taken while the student was an undergraduate.

Courses (LING)

LOWER DIVISION

100. The Nature of Language (3)
   Prerequisite/Corequisite: GE A1 requirement.
   Examines ongoing issues concerning cognitive and social aspects of language. In exploring both popular and scientific perspectives on language, students develop skills in critical thinking while exploring elements of linguistic analysis.

101. Introduction to the World’s Languages (3)
   Prerequisite: ENGL 100 or GE Composition (Area A1).
   General introduction to roles that the world’s languages have played historically, socially, culturally and politically. Nature of language, how languages operate, differ, and relate to each other. Contact between languages and change over time. Spoken and written forms of language.

170. Introduction to Linguistics (3)
   Prerequisite/corequisite: Any GE Foundation course.
   Nature of language; its relation to culture; language structure and processes of change; language universals, contrasts and relationships.

   Same course as ANTH 170. Not open for credit to students with credit in ANTH 170.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

301. Introduction to Research Methods (3)
   Prerequisites: LING/ANTH 170 or consent of instructor.
   Introduction to quantitative, qualitative and mixed method research in linguistics; basic statistics; writing a research report. Letter grade only (A-F). May be used to satisfy the GWAR.

325. Modern English Grammar (3)
   Study of the structural characteristics of English words, phrases and sentences. Traditional grammatical terminology, basic morphology, constituent structure, phrase structure, finite and non-finite clauses. Descriptive and prescriptive grammar; reference to pedagogical contexts.
   Not open for credit to students with credit in ENGL 325. Letter grade only (A-F).

329. Introduction to Language Acquisition (3)
   Letter grade only (A-F). Not open for credit to students with credit in C D 329.
Principles of language structure, variation and usage for educators. First and second language acquisition, and related social, cultural and political issues regarding language behavior in middle and high schools. Influences on language attitudes, maintenance and shift.
Letter grade only (A-F).

363. Implications of Human Language (3)
Prerequisite: Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examines human language from the perspectives of linguistics, psychology, and communicative disorders. Topics include relationships between languages of the world, language acquisition, and the social meaning of language and dialect differences. The implications of language for the individual and her/his social experience are experienced through the methodologies of these disciplines.

379. Sociolinguistics (3)
Prerequisite: LING/ANTH 170.
Survey of language variation and its relationship to social characteristics and processes. Study of regional and social dialects, interactional sociolinguistics, language attitudes research, sociolinguistic discourse analysis and the study of language policy and ideology as well as multilingualism. Application of sociolinguistics to educational and other contexts.
Letter grade only (A-F).

401./501. Corpus Linguistics (3)
Prerequisite: LING/ANTH 170 or consent of instructor.
Analyzing language through quantitative corpus data, with applications to fields such as lexicography, natural language processing, L2 pedagogy, and historical linguistics.
Letter grade only (A-F).

413. Language and Culture (3)
Prerequisites: LING/ANTH 170 or consent of instructor.
Relation of language to social and cultural practices and processes; issues of meaning, identity and power within and across cultures.
Same course as ANTH 413. Not open for credit to students with credit in ANTH 413.

420. Phonology (3)
Prerequisite: LING/ANTH 170 or consent of instructor.
Study of the phonology of American English, using articulatory phonetic, phonemic, and distinctive feature analyses.
Letter grade only (A-F).

421. Syntax (3)
Prerequisite: LING 325.
With the structure of American English as a reference point, this course provides an introduction to the analysis of a range of morphological and syntactic structures found in languages from a variety of language families.
Letter grade only (A-F). (Seminar)

423. Semantics (3)
Study of meaning in language.
Same course as ENGL 423. Not open for credit to students with credit in ENGL 423.

425. Education Across Cultures (3)
Prerequisites: GE Foundation requirements, one or more Exploration, and upper-division standing.
Same course as ANTH 421. Not open for credit to students with credit in ANTH 421.

426. History of the English Language (3)
Development of the English language from its beginnings to the present day.
Same course as ENGL 426. Not open for credit to students with credit in ENGL 426.

428. Applied Linguistics (3)
Prerequisites: LING/ANTH 170 or consent of instructor.
Linguistic research applied to the study and teaching of linguistics and language skills.
Not open for credit to students with credit in ENGL 428/524. Letter grade only (A-F).

433. Survey of Discourse Analysis (3)
Prerequisites: LING/ANTH 170.
Introduction to discourse analysis; language structure from the viewpoint of production. The structure of genres: conversation, narrative, exposition, and others; language in special settings. Discourse analysis in theoretical and applied linguistics. Pragmatics and discourse; developmental issues.
Letter grade only (A-F).

438./538. Psycholinguistics (3)
Prerequisite: LING/ANTH 170 or consent of instructor.
How language works in the human mind: psychological factors involved in language production and comprehension, and the relation between language and cognition.
Letter grade only (A-F).

460./560. TESOL Composition (3)
Prerequisites: LING 325 or consent of instructor.
Introduction to the rhetoric and composition of students with limited English proficiency. Attention to both the general principles of composition, and the specific issues that face students and teachers in an ESL context.
Letter grade only (A-F).

470. Language and Gender in Cross-Cultural Perspective (3)
Analysis of men's and women's communication in its social and cultural context: role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions of perceptions and stereotypes and their effect on communication.
Same course as ANTH 475, WGSS 475. Not open for credit to students with credit in ANTH 475, WIST 475, WGSS 475.

472. Language and Social Justice (3)
Prerequisites: Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Survey and analysis of how language is implicated in social justice issues related to racial, ethnic, gender, class and other sociocultural categories and identities. Draws on historical and contemporary examples from education, law, politics, and media in the U.S. Traditional
Letter grade only (A-F).
486. Second Language Teaching Methods (3)
Prerequisites: LING 325 or consent of instructor.
Introduction to current methods and techniques for teaching second languages with a focus on teaching English to speakers of other languages. Classroom applications in second language settings.
Letter grade only (A-F).

490. Selected Topics in Linguistics (1-3)
Prerequisite: Consent of instructor.
Investigation of topics of current interest and concern to students in linguistics and allied areas.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

499. Directed Studies in Linguistics (1-3)
Prerequisite: Consent of instructor.
Independent study under the supervision of a faculty member.

GRADUATE LEVEL

500. Educational Linguistics (3)
Prerequisites: Nine units of linguistics or consent of instructor.
Graduate introduction to role of language and linguistics in contemporary education; analysis of context of language acquisition; attitudes toward multilingualism; language policies which set guidelines and expectations for instruction; cultural factors which influence language acquisition.
Letter grade only (A-F).

501./401. Corpus Linguistics (3)
Analyzing language through quantitative corpus data, with applications to fields such as lexicography, natural language processing, L2 pedagogy, and historical linguistics.
Letter grade only (A-F).

533. Ethnography of Communication (3)
Prerequisite: Graduate standing.
Study of talk and other forms of communication from an ethnographic perspective. Emphasizes relevant methods and theories. Major topics presented include: language socialization, genres of speaking, intercultural communication, speech styles, strategic uses of language, and literacy.
Letter grade only (A-F).

538./438. Psycholinguistics (3)
How language works in the human mind: psychological factors involved in language production and comprehension, and the relation between language and cognition.
Letter grade only (A-F).

539. Language Acquisition (3)
Prerequisites: LING 329 or equivalent. Six units of linguistics or upper division psychology, or consent of instructor.
Theory and research on acquisition of first and subsequent languages in children and adults. Psycholinguistic perspectives on phonological, syntactic, semantic, and pragmatic aspects of language. Interacting roles of cognitive processes, individual differences, social influences, and cultural context will be stressed.
Letter grade only (A-F). Not open for credit to students with credit in PSY 539.

540. Sociolinguistics (3)
Prerequisite: Nine units of linguistics or consent of instructor.
Study of the linguistic and social antecedents, correlates, and consequences of language variation in the individual and society. Integration of theoretical models and practical fieldwork.
(2 hrs seminar, 3 hrs lab.)

560./460. TESOL Composition (3)
Introduction to the rhetoric and composition of students with limited English proficiency. Attention to both the general principles of composition, and the specific issues that face students and teachers in an ESL context.
Letter grade only (A-F).

561. Second Language Curriculum Development (3)
Prerequisite: LING 325 or consent of the instructor.
Study of the content of second language instruction, from nongrammatical, communicative approaches to content-based instruction. Looks at both K-12 and adult language instruction.

562. Second Language Testing and Assessment (3)
Prerequisite: LING 325 or consent of the instructor.
Testing and assessment of second language learners, including both standardized tests and teacher-developed modes of assessment.
Letter grade only (A-F).

575. Literacy and Linguistics (3)
Prerequisite: Six units in linguistics or consent of instructor.
General introduction to field of literacy studies. Examines relationship between oral and written language, native language literacy and biliteracy acquisition, pedagogical practices and issues, and cognitive and sociocultural approaches to literacy development.
Letter grade only (A-F).

580. Linguistic Field Methods (3)
Prerequisite: LING 420 and LING 421, or consent of instructor.
Introduction to linguistic field work with a native speaker of an unfamiliar non-European language. Phonetic transcription and investigation of phonological, morphological, and syntactic structures of the selected language within the context of linguistic universals.
Letter grade only (A-F). Same course as ANTH 570. Not open for credit to students with credit in ANTH 570. May be repeated for a maximum of 6 units with different topics in different semesters. May be taken more than once if the language under investigation differs.

590. Selected Topics in Linguistics (1-3)
Prerequisite: Consent of instructor.
Advanced study of special topics of current interest and concern to students in linguistics and allied areas.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

593. Practicum in TESOL (3)
Prerequisite: LING 486.
Classroom experience in teaching English to speakers of other languages supplemented by reading, discussion and research. Students must be available to be assigned to regularly scheduled ESL classes five hours per week, as well as for meetings with the instructor.
Letter grade only (A-F).

595. Qualitative Research Methods (3)
Prerequisites: Advancement to candidacy for the M.A. in linguistics. LING 301 or equivalent.
Comprehensive introduction to theory, nature, and use of qualitative methods. Emphasis on identifying research problems, evaluating published research, developing research design, employing data collection techniques, analyzing data, presenting findings, and preparing research proposals.
Letter grade only (A-F).
596. Quantitative Research Methods (3)
Prerequisites: Advancement to candidacy for the M.A. in linguistics, LING 301 or equivalent.
Comprehensive introduction to theory, nature, and use of quantitative methods. Emphasis on identifying research problems, evaluating published research, developing research design, employing data collection techniques, using statistical analyses, presenting findings, and preparing research proposals.
Letter grade only (A-F). (Seminars, 2 hours; Laboratory, 2 hours)

597. Directed Study in Linguistics (1-3)
Prerequisite: Consent of instructor and advisor.
Directed study on issues and topics in Linguistics. Not intended to replace available courses.

610. Historical Linguistics (3)
Prerequisites: LING 420 and LING 421, or consent of instructor.
Advanced study of language change, language families, and language relationships using the methods of comparative linguistics.
Letter grade only (A-F).

620. Seminar in Syntactic Theory and Analysis (3)
Prerequisite: LING 421.
Theories and practices of selected views of syntax in contemporary linguistics. Topic may vary from semester to semester.
Letter grade only (A-F).

625. Seminar in Phonetics and Phonology (3)
Prerequisite: LING 420.
Theory and practice of selected views of phonetics and phonology in contemporary linguistics.
(Seminar, 2 hours; Laboratory, 2 hours) Letter grade only (A-F).

633. Discourse and Grammar (3)
Prerequisite: LING 421 or consent of instructor.
Discourse analysis within linguistic theory and method. Focus on the relationship of discourse and grammar; relationship of morphosyntactic devices to discourse context and of information flow to grammar. Pragmatic motivation for grammatical systems. Relationships of grammar and genre.
Letter grade only (A-F).

650. Seminar in Bilingualism (3)
Prerequisite: LING 329 or consent of instructor.
Advanced study of degrees of bilingualism and types of bilingual situations. Implications of bilingualism and bilingual social situations for linguistics and education.
Letter grade only (A-F).

697. Directed Research (1)
Prerequisite: Advancement to candidacy for the M.A. in Linguistics.
Research in linguistics on a topic connected with the Comprehensive Project and Examination for the Master’s degree.
Letter grade only (A-F). May be repeated to a maximum of 3 units.

698. Thesis (1-6)
Prerequisite: Consent of graduate committee.
Planning, preparation and completion of a thesis in linguistics.

Courses (ASLD)

LOWER DIVISION

101. American Sign Language 1 (4)
Prerequisite/Corequisite: One GE Foundation course.
For those who are beginning ASL, or who have had less than two years of high school ASL or equivalent. Introduction to pronunciation, receptive and expressive conversational skills without voice, and grammatical structures of American Sign Language (ASL). Development of appropriate linguistic/cultural behaviors and awareness of and respect for Deaf Culture.
Letter grade only (A-F).

102. American Sign Language 2 (4)
Prerequisite: ASLD 101 or equivalent.
Second semester introduction to pronunciation, receptive and expressive conversational skills without voice, and grammatical structures of American Sign Language (ASL). Includes development of appropriate linguistic/cultural behaviors and awareness of and respect for Deaf Culture.
Letter grade only (A-F).

124. American Deaf Cultures (3)
Prerequisite: None
The course will explore issues of language, consciousness, culture, self-representation, identity, and social construction within and between groups. Focus will be on cultural oppression, power, contributions of folklore, literature, plays, Deaf art, and the impact of modern technology on multiple discourses of Deaf culture within America.
Letter grade only (A-F). No knowledge of a signed language or prior experience with this culture is required. Lecture 3 hours.

201. American Sign Language 3 (4)
Prerequisite: ASLD 101 and ASLD 102 or consent of instructor.
Low-to-mid intermediate level ASL focusing on receptive and expressive conversational skills without voice, using manual and nonmanual, spatial, and temporal grammatical structures.
Letter grade only (A-F). Lecture 4 hours.

202. American Sign Language 4 (4)
Prerequisite: ASLD 201 or consent of instructor.
Mid-to-high intermediate level ASL focusing on receptive and expressive ASL skills without voice, using manual and non-manual, spatial, and temporal grammatical structures.
Letter grade only (A-F). Lecture 4 hours.

211. Beginning Interpreting and Ethics 1 (3)
Prerequisites: ANTH/LING 170 and ASLD 124.
Corequisite: ASLD 201 or consent of instructor.
This course is designed to provide students with the historical, theoretical, and practical knowledge of the ASL-English interpreting profession.
Letter grade only (A-F). Lecture 3 hours.

212. Beginning Interpreting and Ethics 2 (3)
Prerequisite: ANTH/LING 170, ASLD 124, and ASLD 211.
Corequisite: ASLD 202 or consent of instructor.
This course is designed to provide students with the cognitive skills needed to beginning translating from English to ASL, and ASL to English.
Letter grade only (A-F). Lecture 3 hours.
UPPER DIVISION

305. American Sign Language 5 (4)
Prerequisite: ASLD 124 and ASLD 202; or consent of instructor.
This course is an advanced course in receptive and expressive ASL skills in interactive and literary styles.
Letter grade only (A-F). Lecture 3 hours, Lab 2 hours.

306. American Sign Language Linguistics (3)
Prerequisite: LING/ANTH 170 required. Background in ASL recommended, but not required.
Analyses of linguistic structures of American Sign Language (ASL) varieties in the USA. Comparisons of spoken and signed languages, and of signed languages globally.
Letter grade only (A-F).

311. Intermediate Interpreting and Ethics 1 (4)
Prerequisite/Corequisite: ANTH/LING 170, ASLD 124, and ASLD 212.
Corequisite: ASLD 305; admission to the BA Option in ASL-English interpreting; or consent of instructor
Skills in translation between ASL and English acquired within current theories of interpretation and ethics.
Lecture Grade Only (A-F). Lecture 3 hours, Lab 2 hours.

312. Intermediate Interpreting and Ethics 2 (4)
Prerequisite/Corequisite: ANTH/LING 170, ASLD 124, and ASLD 305, ASLD 311.
Corequisite: ASLD 306; admission to the BA Option in ASL-English interpreting; or consent of instructor.
Skills in consecutive interpreting between ASL and English acquired within current theories of interpretation and ethics. Letter grade only (A-F). Lecture 3 hours, Lab 2 hours.

411. Advanced Interpreting and Ethics 1 (4)
Prerequisite: ANTH/LING 170, ASLD 124, ASLD 305, ASLD 306, and ASLD 312; admission to the BA Option in ASL-English interpreting; or consent of instructor.
This course will focus on simultaneous interpreting from English to ASL, contextualized by current theories of interpreting and ethics.
Letter grade only (A-F). Lecture 3 hours, Lab 2 hours.

412. Advanced Interpreting and Ethics 2 (4)
Prerequisite: ANTH/LING 170, ASLD 124, ASLD 305, ASLD 306, and ASLD 411; admission to the BA Option in ASL-English interpreting; or consent of instructor.
This course will focus on simultaneous interpreting from ASL to English, contextualized by current theories of interpretation and ethics. Letter grade only (A-F). Lecture 3 hours, Lab 2 hours.

424. Global Deaf Cultures and Languages (3)
Prerequisite: ANTH/LING 170, ASLD 101 (formerly LING 151), and ASLD 124; or consent of instructor.
This course focuses on global Deaf cultures and their signed languages.
Letter grade only (A-F).

434. Practicum (3)
Prerequisite: ANTH/LING 170, ASLD 124, ASLD 305, ASLD 306, ASLD 412, ASLD 424; admission to the BA Option in ASL-English interpreting; or consent of instructor.
Exposure and experience in using ASL/spoken English interpreting skills in settings with individuals who are deaf or hard of hearing.
Letter grade only (A-F).

444. Exam Preparation (1)
Prerequisite: ANTH/LING 170, ASLD 124, ASLD 305, ASLD 306, ASLD 412, ASLD 424, ASLD 434; admission to the BA Option in ASL-English interpreting; or consent of instructor.
Preparation for the Registry of Interpreters of the Deaf written exam.
MANAGEMENT AND HUMAN RESOURCE MANAGEMENT
College of Business Administration

Department Chair: TBA
Department Office: College of Business Administration (CBA) 321
Telephone: (562) 985-4753
Faculty: David J. Abramis, Josh A. Arnold, Jeffrey Bentley, Ming Chen, Yoonhee Choi, Philip S. Chong (Emeritus), Chailin Cummings, Kenji Klein, Sal Kukalis, Craig Macaulay, Dana Sumpter, Sabine Reddy, Jessica Robinson, Vicki M. Scherwin, Judy P. Strauss, Xuemei (Sherry) Su, Mark Washburn, Jun Yan, Mona Zanhour
Administrative Support Coordinator: Jessica Marie McClintock

For MBA with Specialization in Management and Human Resources Management, see Business Administration, Graduate Programs.

Career Possibilities
Human Resource Manager • Management Trainee • Retail Manager • Buyer • Bank Manager • Credit Manager • Property Manager • Hotel Manager • Restaurant Manager • Office Manager • Project Manager • Sales Representative • Insurance Office Manager • Assessor • Industrial Traffic Manager • City Manager • Community Services Director • Logistics Planning Specialist • Manufacturing Planner • Operations Manager

(Some of these careers require additional education or experience.) Various entry-level trainee positions in business and industry are available for graduates regardless of academic discipline.

Undergraduate Programs

Bachelor of Science in Business Administration

Admission Under Impaction
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.

Requirements
In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses, including economics and statistics, must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

1. Lower Division:
Take all of the following:
ACCT 201 Elementary Financial Accounting (3)
* C or better
Prerequisite: None
ACCT 202 Managerial Accounting (3)
* C or better
Prerequisite: ACCT 201
ECON 100 Principles of Macroeconomics (3)
* C or better
Prerequisites: MATH 103 or higher; one GE Foundation course.
ECON 101 Principles of Microeconomics (3)
* C or better
Prerequisite/Corequisite: MATH 103 or higher.
MATH 115 Calculus for Business (3)
* C or better
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.

Choose one of the following:
STAT 118 Intro to Business Statistics (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
MATH 114 Finite Mathematics (3)
Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 11.

Students planning business options should take STAT 118.

2. Critical Thinking Course Requirements
Any critical thinking course (GE category A3); IS 100 is recommended.

3. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:
A. Passing score (70%) on the Computer Proficiency Examination (CPE).
B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr).
Prerequisite: None
C. Transfer equivalent course with a "C" or better grade.

4. Upper Division:
A. Take all of the following:
CBA 300 International Business (3)
Prerequisite: None
FIN 300 Business Finance (3)
Prerequisite: None
BLAW 320 Legal and Regulatory Environment of
Business (3)
Prerequisite: None

IS 300 Management Information Systems (3)
Prerequisite: IS 233 or equivalent.

IS 301 Business Communications (3)
Prerequisite: None

IS 310 Business Statistics (3)
Prerequisite: STAT 118 or MATH 114.

HRM 360 Organizational Behavior (3)
Prerequisite: None

MGMT 300 Principles of Management (3)
Prerequisite: None

MKTG 300 Marketing (3)
Prerequisite: None

B. The following Capstone course must be taken at CSULB as a senior and after the upper-division prerequisite core courses have been completed

MGMT 425 Business Strategy and Policy (3)
Prerequisites: ACCT 202 or ACCT 320; MGMT 300, MKTG 300, FIN 300 and IS 301.

C. Completion of option requirements.

5. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

Option in Management (120 units)

This option prepares students for management of the business enterprise with attention to the need to create and maintain a desirable internal environment. Additionally, the interface of that environment with the external environment in relation to success of the enterprise is considered. Philosophical basis for the practice of management, ethical considerations and human values are stressed.

Requirements

1. Take the following course:
   MGMT 454 Organization Theory (3)
   Prerequisites: MGMT 300, IS 301.

2. Take 15 units selected from the following:
   MGMT 326, MGMT 405, MGMT 406, MGMT 412, MGMT 413, MGMT 421, MGMT 430, MGMT 455, MGMT 456; SCM 410, SCM 411, SCM 414; HRM 361, HRM 446; CBA 494 (A or B), CBA 485.

Option in Operations and Supply Chain Management (120 units)

The Operations and Supply Chain Management curriculum is designed to develop student competence in the conceptual, systematic, and analytical tools required for positions in manufacturing and service-oriented industries. Emphasis is placed on business process management and transformation, analytical and decision making skills, program or project management, managing client, supplier and channel relationships, end-to-end integrated supply chain knowledge and logistics application, total quality management/performance excellence, and lean thinking.

Requirements

1. Take 6 units from the following:
   SCM 411 Operations Planning and Control (3)
   Prerequisites: MGMT 300, IS 301.

   SCM 414 Supply Chain Management (3)
   Prerequisites: MGMT 300, IS 301.

2. Take 12 units from the following:
   SCM 410; MGMT 412, MGMT 413, MGMT 430, MGMT 454, MGMT 455, MGMT 456.

Option in Human Resource Management (120 units)

The objectives of this option: (1) provide students with theoretical foundations for understanding how employees are motivated to accomplish organizational goals; (2) develop skills to attract, reward, develop and retain human resources; (3) develop an understanding of the strategic, theoretical, and practical approaches to human resources management; (4) develop aspiring leaders with a strong sense of ethics and social responsibility and an awareness of how societal changes necessitate organizational change.

Requirements

1. Take the following course:
   HRM 361 The Human Resource Function (3)
   Prerequisite: None

2. 15 units selected from the following:

Minor in Human Resource Management

Requirements

For Non-Business Students only (NOTE: the IS 301 prerequisite requirement is waived for the minor).

1. Take the following courses:
   HRM 360 Organizational Behavior (3)
   Prerequisite: None

   HRM 361 The Human Resource Function (3)
   Prerequisite: None

2. 12 units selected from the following:

Minor in Entrepreneurship

Requirements

For Non-Business Students only (NOTE: the IS 301 prerequisite requirement is waived for the minor).

1. Take the following courses:
   MGMT 300 Principles of Management and Operations (3)
   Prerequisite: None.

   MGMT 421 Entrepreneurship & New Venture Creation (3)
   Prerequisites: MGMT 300.

2. 9 units selected from:
   ACCT 201; BLAW 320; CBA 300; FIN 300, FIN 340; HRM 360, HRM 361; IS 233, IS 300, IS 340, IS 355, IS 380, IS 445, IS 483, IS 484; MKTG 300, MKTG 310, MKTG 330, MKTG 410, MKTG 430, MKTG 465, MKTG 480, MKTG 490, MKTG 492, MKTG 495; MGMT 495 (two topics) as approved by the Management area of the Management/HRM Department.

Students may not take more than two elective courses from any one prefix category.
421. Entrepreneurship and New Venture Creation (3)  
Prerequisites: MGMT 300, IS 301.  
Starting a new business. Being an entrepreneur in a free enterprise environment or an entrepreneur in an existing organization. Use of state-of-the-art theory to plan and evaluate business startups. Testing ideas with successful entrepreneurs and creating individual business plans.  
Letter grade only (A-F).

425. Business Strategy and Policy (3)  
Prerequisites: ACCT 202 or ACCT 320; MGMT 300, MKTG 300, FIN 300 and IS 301.  
Integration and application of knowledge theories and techniques derived from the study of business disciplines. Use of the case method and business simulations to formulate business strategies and plans. Written reports required.  
Letter grade only (A-F).

430. Project Management (3)  
Prerequisites: MGMT 300, IS 301.  
Selection of project ideas and implementation of projects. Roles of team member and project manager. Project planning and organization. Budgeting, scheduling, monitoring and controlling, including computerized network models and project management software packages. Final project analysis and termination.  
Letter grade only (A-F).

454. Organization Theory (3)  
Prerequisites: MGMT 300, IS 301.  
Design and adaptation of organizations. Development of tools for analysis and design. Exploration of organizational structure. The organization as a system of authority, a political system, and an information and coordination device. Cases and computer simulations.  
Letter grade only (A-F).

455. Managerial Decision Making Processes (3)  
Prerequisites: MGMT 300, IS 301.  
Incorporates both quantitative and psychological aspects of decision making for management problems. Includes topics such as decision making with multiple objectives, decision tree, risk management, game theory, utility theory, prospect theory, simulation, and responses to performance feedback.  
Letter grade only (A-F).

456. Service Management (3)  
Prerequisites: MGMT 300, IS 301.  
Introduce the concepts of service, the role that services play in the economies, service strategies, service design and operation, and various quantitative models for service management and improvement.  
Letter grade only (A-F).

495. Selected Topics in Management (1-3)  
Prerequisites: GPA of 3.0 in Management courses, consent of instructor, IS 301.  
Topics and issues of critical importance to management. Development of critical thinking, writing, and speaking skills.  
Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in Schedule of Classes.
Human Resource Management Courses (HRM)

360. Organizational Behavior (3)
Overview of the dynamics of human behavior in organizations and implications for management. Motivation, personality and attitudes, human perception, groups and teams, norms, power and politics, conflict, learning, communication, job design, organizational culture, organizational change, leadership and cross-cultural issues.
Letter grade only (A-F).

361. The Human Resource Function (3)
Overview of human resource functions designed to attract, motivate, develop and retain employees. Planning, job analysis, recruitment, selection, placement, appraisal, compensation and benefit administration, training and development, communications, labor management relations and the international environment. Discussion, cases and student presentations.
Letter grade only (A-F).

440. Collective Bargaining (3)
Prerequisites: HRM 361, IS 301.
Roles of management, labor and government in structuring work environments. Nature of the process of negotiation and conflict resolution in organizations.
Letter grade only (A-F).

445. Compensation Administration (3)
Prerequisites: HRM 361, IS 301.
Compensation and benefits management as an integrating human resource management process. Development and administration of equitable compensation and benefit programs. Job analysis and evaluation, pay structures, salary surveys, individual compensation, incentive, systems and benefits administration. Discussion, cases and simulations.
Letter grade only (A-F).

446. Leadership and Motivation in Organizations (3)
Prerequisites: HRM 360, IS 301.
Determinants of effective leadership and successful methods of motivating employees to achieve organizational goals. Identification of appropriate styles of leadership and methods for developing and applying leadership skills. Case studies, research, and simulation exercises.
Letter grade only (A-F).

458. Managing Culture and Diversity (3)
Prerequisites: HRM 360 or HRM 361; IS 301.
Impact of diversity, culture, and ethnic origin on the work experience. Interaction of language, gender, race, tradition, education, economic structure, and organizational philosophy to create a set of rules for acceptable behaviors in complex organizations. Open dialogue, debate, outside research and group presentations.
Letter grade only (A-F).

460. Current Issues in Human Resource Management (3)
Prerequisites: HRM 360 or HRM 361; IS 301.
Current and emerging issues concerning the management and development of people and organizations. Motivation, leadership, job performance, hiring, compensation, planning, selection, staffing, training, performance appraisal, careers, and quality of work life. Discussion, projects, and outside research.
Letter grade only (A-F).

462. Labor-Management Relations (3)
Prerequisite: IS 301.
Principles and practices influencing labor-management relationships. Development, aims, structure, and functions of labor and employer organizations; collective bargaining process; labor law and governmental intervention; impasse resolution; unions and minorities; employee organizations in government and professional sectors; comparative international systems.
Letter grade only (A-F).

463. Organizational Training and Development (3)
Prerequisite: HRM 360 or HRM 361; IS 301.
Review of the field of training and development, including learning theory, training needs assessment, design and delivery of training and development programs, evaluation, and program management. Career development and organizational development. Case studies, research, simulation exercises, and student presentations.
Letter grade only (A-F).

465. Organizational Training and Development (3)
Prerequisite: HRM 360 or HRM 361; IS 301.
Review of the field of training and development, including learning theory, training needs assessment, design and delivery of training and development programs, evaluation, and program management. Career development and organizational development. Case studies, research, simulation exercises, and student presentations.
Letter grade only (A-F).

497. Directed Studies (1-3)
Prerequisites: IS 301, consent of instructor and Department Chair, and 3.0 GPA or higher in human resource management courses.
Individual projects, study and research of advanced nature in human resources management.
Letter grade only (A-F).

Supply Chain Management Courses (SCM)

410. Logistics Management (3)
Prerequisites: MGMT 300, IS 301.
The management of materials into, within and out of an organization, including location planning, procurement, inventory control, transportation, warehousing, packaging and materials handling and order management. Focus is on the analytical and managerial methods essential for an integrated logistics system.
Letter grade only (A-F). Not open for credit to students with credit in MGMT 310.

411. Operations Planning and Control (3)
Prerequisites: MGMT 300, IS 301.
Strategic principles and tactical practices related to operations planning. Topics include process selection, facilities layout, work systems design, inventory management, aggregate planning, master scheduling, MRP and ERP, scheduling and JIT production activity.
Letter grade only (A-F). Not open for credit to students with credit in MGMT 311.

414. Supply Chain Management (3)
Prerequisites: MGMT 300, IS 301.
Management of value creation and the dynamic interaction of companies within a supply chain. Topics include supply chain drivers and performance, network planning, inventory positioning, supply chain coordination, and information sharing. Contemporary practices are discussed.
Letter grade only (A-F). Not open for credit to students with credit in MGMT 414.
Department Chair: Sam Min
Department Office: College of Business Administration CBA 337
Website: http://www.csulb.edu/colleges/cba/marketing/
Telephone: (562) 985-4769
Faculty: Mary Celsi, Christine Kang, Pamela Miles Homer, Ingrid Martin, Sam Min, Risto Moisio, Hieu Nguyen, Thuc "Doan" Nguyen, Tianjiao Qiu, Reo Song, Praveen Soni, Terrence H. Witkowski, Yu Wang
Administrative Support Coordinator: Stacey Dupee

For MBA with Specialization in Marketing, see Business Administration, Graduate Programs.

Career Possibilities
Social Media Planner • Sales Representative • Marketing Manager • Retail Buyer • Public Relations Specialist • Advertising Account Executive • Purchasing Agent • Retail Merchandising Manager • Brand Manager • Online Account Executive • Online Sales Manager • Media Sales Manager • Media Planner • New Product Manager • Distribution Manager • Packaging Manager • Non-profit Fund Raiser • Event Coordinator and Publication Specialist • Market Research Analyst (Some of these careers require additional experience or education.) Various entry-level, trainee positions in business and industry are available for graduates regardless of academic discipline.

Undergraduate Programs

Bachelor of Science in Business Administration

Admission Under Impaction
Refer to the following website for additional impaction criteria: www.csulb.edu/depts/enrollment/graduation/native-major-criteria/.

Requirements
In order to graduate with an undergraduate business degree from CSULB, a student must complete a minimum of 120 units. A majority of the upper division business courses must be completed at this university. For details, refer to the CBA Policy on Course Transfers/Substitutions.

All CBA majors must maintain major GPAs of 2.0 or higher. A student whose GPA in the major falls below 2.0 will be advised that they are at risk of being dismissed from the major and granted one semester to raise their major GPA(s) to 2.0. Students who do not successfully raise their major GPA(s) must meet with an advisor to declare another major or submit an appeal to the CBA Center for Student Success explaining why they need one additional semester. Students whose major GPAs remain below 2.0 after this additional semester must declare a new major.

1. Lower Division:
   Take all of the following:
   ACCT 201 Elementary Financial Accounting (3) * C or better
   Prerequisite: None
   ACCT 202 Managerial Accounting (3) * C or better
   Prerequisite: ACCT 201
   ECON 100 Principles of Macroeconomics (3) * C or better
   Prerequisites: MATH 103 or higher; one GE Foundation course.
   ECON 101 Principles of Microeconomics (3) * C or better
   Prerequisite/Corequisite: MATH 103 or higher.
   MATH 115 Calculus for Business (3) * C or better
   Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.

   Choose one of the following:
   STAT 118 Intro to Business Statistics (3) Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
   MATH 114 Finite Mathematics (3) Prerequisites: Appropriate ELM score, ELM exemption, or MAPB 11.

   Students planning business options should take STAT 118.

2. Critical Thinking Course Requirements:
   Any critical thinking course (GE category A3); IS 100 is recommended.

3. All business and pre-business majors shall demonstrate computer literacy and competency. Complete one of the following:
   A. Passing score (70%) on the Computer Proficiency Examination (CPE).
   B. IS 233 Introduction to Computer Systems and Applications (3) with Credit (Cr). Prerequisite: None
   C. Transfer equivalent course with a "C" or better grade.

4. Upper Division:
   A. Take all of the following:
      CBA 300 International Business (3) Prerequisite: None
      FIN 300 Business Finance (3) Prerequisite: None
      BLAW 320 Legal and Regulatory Environment of Business (3) Prerequisite: None
      IS 300 Management Information Systems (3) Prerequisite: IS 233 or equivalent.
      IS 301 Business Communications (3) Prerequisite: None
      IS 310 Business Statistics (3) Prerequisite: STAT 118 or MATH 114.
      HRM 360 Organizational Behavior (3) Prerequisite: None
      MGMT 300 Principles of Management (3) Prerequisite: None

2016-2017 CSULB Catalog • Marketing • 623
MKTG 300 Marketing (3)
Prerequisite: None

B. The following Capstone course must be taken at CSULB as a senior and after the upper-division prerequisite core courses have been completed:
MGMT 425 Business Strategy and Policy (3)
Prerequisites: ACCT 202 or ACCT 320; MKTG 300, MKTG 300, FIN 300 and IS 301.

C. Completion of option requirements.

5. Elective courses to total 120 units. Students are encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

Option in Marketing (120 units)

This option establishes that marketing is largely a social process, emphasizing that enterprises meet the needs of individuals or segments of society. The function of marketing is to determine those needs, provide the most effective means of informing actual and potential customers of the availability of services and goods, and deliver such services and goods.

CBA students with the Marketing option will need to take minimum 12 units of Marketing courses at CSULB.

Requirements
1. Nine units selected from the following courses:
   MKTG 310, MKTG 330, MKTG 350, MKTG 405, MKTG 410, MKTG 420, MKTG 430, MKTG 437, MKTG 465, MKTG 475, MKTG 480, MKTG 481, MKTG 492; CBA 493 (subject to approval of the Department Chair).
2. Take the following courses:
   MKTG 470 Marketing Research (3)
   Prerequisites: MKTG 300; IS 301, IS 310.
   MKTG 490 Consumer Behavior (3)
   Prerequisites: MKTG 300, IS 301.
   MKTG 494 Marketing Management (3)
   Prerequisites: MKTG 300, IS 301; senior marketing majors or consent of instructor.

Minor in Marketing

Requirements
For Non-Business Students only (NOTE: the IS 301 prerequisite requirement is waived for the minor).
1. Take the following course:
   MKTG 300 Marketing (3)
   Prerequisite: None.
2. 15 units selected from the following courses:
   MKTG 310, MKTG 330, MKTG 350, MKTG 405, MKTG 410, MKTG 420, MKTG 430, MKTG 437, MKTG 465, MKTG 480, MKTG 481, MKTG 490, MKTG 492, MKTG 494, MKTG 495; CBA 300, CBA 494 (A or B) and CBA 493 as approved by department.

Prerequisites
MKTG 300 is a prerequisite for MKTG 405, MKTG 410, MKTG 420, MKTG 430, MKTG 437, MKTG 465, MKTG 480, MKTG 481, MKTG 490, MKTG 492, and MKTG 494, and MKTG 495.
430. Promotion Strategies (3)
Prerequisites: MKTG 300, IS 301.

437. Digital Marketing and Media (3)
Prerequisites: MKTG 300, IS 301.
The role of digital media (e.g., e-commerce, social media, search optimization, mobile applications, online video, gaming) in consumer behavior and implications for marketing strategies. Digital marketing metrics, analysis of online business models, and future trends in digital marketing also discussed. Letter grade only (A-F).

465. Business To Business Marketing (3)
Prerequisites: MKTG 300, IS 301.
Focus on business, government, and institutional markets. Comparison with consumer marketing. Analysis of business product/services and domestic/international marketing strategy. Emphasis on relationship management, supply chain and channel management, product/service innovation, brand equity, trade shows and personal selling. Letter grade only (A-F).

470. Marketing Research (3)
Prerequisites: MKTG 300; IS 301, IS 310.

475. Marketing Analytics (3)
Prerequisite: IS 301, IS 310, MKTG 300, and MKTG 470.
Marketing Analytics is an application of data science to marketing decision problems. The course explores customer data analysis techniques and their theoretical foundations to help students acquire analytic skills that can be applied to real world marketing problems. The course also examines the ethical and technical issues related to data privacy. Letter grade only (A-F).

480. International Marketing (3)
Prerequisites: MKTG 300, IS 301.
The study of global marketing theory and practice. The historical, economic, cultural, political, and legal factors that affect marketing decision-making in an international context. How to develop and present plans for exploiting global marketing opportunities. Letter grade only (A-F).

481. International Marketing in Selected Markets (3)
Prerequisites: MKTG 300, IS 301.
Taught as a special topics seminar. Depending upon the instructor, topics may include marketing within specific regions such as Asia or Europe, marketing in developing countries, or international aspects of the marketing mix such as global advertising and global retailing. Letter grade only (A-F).

490. Consumer Behavior (3)
Prerequisites: MKTG 300, IS 301.
Consumer behavior in a marketing context. Information processing, personality/lifestyle, group, social class, cultural/sub-cultural, and demographic factors to influence consumption behavior. Strategic and analytical thinking of consumer behavior both in profit and nonprofit contexts as well as relevant public policy applications. Letter grade only (A-F).

492. New Products/New Services (3)
Prerequisites: MKTG 300, IS 301.
New product and new service development process from idea generation to launch; diffusion of innovation and sales forecast of new product; market entry strategy; branding of new product; business plan for new product/service. Letter grade only (A-F).

494. Marketing Management (3)
Prerequisites: MKTG 300, IS 301; senior marketing majors or consent of instructor.
Strategies and techniques in marketing management. Application of prior material from marketing curriculum to problems and cases. Emphasis on problem identification, evaluation of alternatives, and developing recommendations. Letter grade only (A-F).

495. Selected Topics in Marketing (1-3)
Prerequisites: MKTG 300 and consent of instructor.
Topics of current interest in marketing selected for intensive study. May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

497. Directed Studies (1-3)
Prerequisites: IS 301, consent of instructor and department chair, on Dean's List and a 3.0 GPA or higher in marketing.
MATHEMATICS AND STATISTICS
College of Natural Sciences and Mathematics

Department Chair: Tangan Gao
Undergraduate Associate Chair: Kent G. Merryfield
Department Office: Faculty Offices (FO) 3 - 120
Telephone / FAX: (562) 985-4721 / (562) 985-8227
Website: www.csulb.edu/depts/math/

Faculty:

Administrative Support Coordinator: Linda Dixon
Student Services Coordinator: Sofia Aguilera
ELM Coordinator: Larry Brownson

Advisors:
- Undergraduate:
  - General - William L. Murray
  - Applied Math - Melvin D. Lax
  - Statistics - Olga Korosteleva
  - K-9th Teaching - Norma Noguera
- Honors in the Major: Kent G. Merryfield
- Credential: Angelo Segalla

Graduate:
- General - John O. Brevik
- Applied - Eun Heui Kim
- Mathematics Education - Joshua D. Chesler
- Statistics - Hojin Moon

Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities
- Mathematician • Statistician • Operations Research Analyst
- Computer Programmer • Wage/Salary Analyst • Teacher
- Systems Analyst • Financial Analyst • Corporate Accountant
- Actuary • Surveyor • Information Scientist • Econometricist
- Securities Analyst • Efficiency Engineer • Meteorologist
- Technical Writer • Demographer

Various entry-level trainee positions in business and industry are available regardless of academic discipline.

Introduction

Mathematics is fundamental to all scientific knowledge, including not only the traditional natural sciences but increasingly the social and economic sciences. Mathematics is also a vital aid to critical and philosophical thinking.

The Department offers instruction for students at all levels beyond high school mathematics. Its courses provide the computational and analytic skills needed for a variety of majors, as well as the advanced theoretical topics for specialists in mathematics.

Academic Advising and Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this department need to contact the College of Natural Sciences and Mathematics’ (CNSM) Academic Advising Center (HSCI 164) and participate in the College's Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students’ chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Academic Advising Center, Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

Concurrent and/or Summer Enrollment at Another College

Students who wish to take coursework at a community college or other college to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. University policy must also be complied with; see ‘Concurrent Enrollment’ and ‘Transfer or summer enrollment. University policy must also be complied with; see ‘Concurrent Enrollment’ and ‘Transfer

Undergraduate Programs

Bachelor of Science in Mathematics (120 units)

This program requires a selection of fundamental courses in algebra, statistics, and analysis be taken. It is the most flexible program, in which the greatest number of electives may be chosen. Elective upper division mathematics courses are available which meet the needs of students preparing careers in industry and government, secondary teaching, and graduate study. Students who do not wish to complete the requirements for a declared option in applied mathematics or statistics may wish to elect courses in one or both of these areas as part of this degree program.

Requirements

Lower Division:
- Take all the following courses:
  - MATH 122 Calculus I (4)
  - *C or better required.
- Prerequisite: Appropriate MDPT placement or a grade of "C"

College's Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in June-July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students’ chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Academic Advising Center, Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

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Undergraduate Programs

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This program requires a selection of fundamental courses in algebra, statistics, and analysis be taken. It is the most flexible program, in which the greatest number of electives may be chosen. Elective upper division mathematics courses are available which meet the needs of students preparing careers in industry and government, secondary teaching, and graduate study. Students who do not wish to complete the requirements for a declared option in applied mathematics or statistics may wish to elect courses in one or both of these areas as part of this degree program.

Requirements

Lower Division:
- Take all the following courses:
  - MATH 122 Calculus I (4)
  - *C or better required.
- Prerequisite: Appropriate MDPT placement or a grade of "C"
or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
*C or better required.
Prerequisite: A grade of "C" or better in MATH 122.

MATH 224 Calculus III (4)
*C or better required.
Prerequisite: A grade of "C" or better in MATH 123.

MATH 233 Fundamental Concepts for Adv Math (3)
*C or better required.
Prerequisite: A grade of "C" or better in MATH 123.

MATH 247 Introduction to Linear Algebra (3)
Prerequisite: MATH 123.

CECS 174 Introduction to Programming and Problem Solving (3)
Prerequisite: CECS 100 and MATH 113 (or equivalent).

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

Take the following course:

ENGL 317 Technical Communication (3)
Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Upper Division:
Take a minimum of 30 units of MATH or STAT courses to include the following (but not MATH 303, MATH 309, MATH 370A, MATH 370B, or MATH 409):

Take one of the following courses: *("C" or better required).

MATH 341 Number Theory (3)
Prerequisite: A grade of "C" or better in MATH 233.

MATH 347 Linear Algebra (3)
Prerequisites: MATH 233 and MATH 247.

Take all of the following courses:

MATH 361A Introduction to Mathematical Analysis I (3)
*C or better required.
Prerequisites: MATH 224, and MATH 233 or MATH 247.

MATH 361B Introduction to Mathematical Analysis II (3)
Prerequisite: A grade of "C" or better in MATH 361A.

MATH 364A Ordinary Differential Equations I (3)
Prerequisites: MATH 224; Prerequisite/Corequisite: MATH 247.

MATH 380 Probability and Statistics (3)
Prerequisite: MATH 224.

MATH 444 Introduction to Abstract Algebra (3)
Prerequisites: MATH 233 and MATH 247 and a grade of "C" or better in at least one of MATH 341 or in MATH 347.

To allow flexibility, only 18 of the required 30 units are specified. Students should choose the remaining 12 units after discussing career goals and interests with an advisor.

Option in Applied Mathematics (120 units)

This option emphasizes mathematics frequently used in applications. The student may choose one of two suboptions; the first is aimed at applications in science and engineering, the second at applications in economics and management. Students are prepared for careers in industry, business, and government and for graduate study in applied mathematics.

Requirements

Suboption I: Application in Science and Engineering

Lower Division:
Take all the following courses:

MATH 122 Calculus I (4)
*C or better required.
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
*C or better required.
Prerequisite: A grade of "C" or better in MATH 122.

MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123.

MATH 247 Introduction to Linear Algebra (3)
Prerequisite: MATH 123.

CECS 174 Introduction to Programming and Problem Solving (3)
Prerequisite: CECS 100 and MATH 113 (or equivalent).

PHYS 151 Mechanics and Heat (4)
Prerequisite: None.

PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 122.

Take the following course:

ENGL 317 Technical Communication (3)
Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take one of the following courses:

PHYS 254 Applied Modern Physics (3)
Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.

EE 211 Electric and Electronic Circuits (3)
Prerequisites: (EE 210/210L or PHYS 152) and (MATH 123 or equivalent).

CE 205 Analytical Mechanics I (Statics) (3)
Prerequisite: PHYS 151. Prerequisite/Corequisite: MATH 123.

Upper Division:
Take all the following courses:

MATH 323 Introduction to Numerical Analysis (4)
Prerequisites: MATH 224, and a course in computer programming.

MATH 361A Introduction to Mathematical Analysis I (3)
*C or better required.
Prerequisites: MATH 224, and MATH 233 or MATH 247.

MATH 361B Introduction to Mathematical Analysis II (3)
Prerequisite: A grade of "C" or better in MATH 361A.

MATH 364A Ordinary Differential Equations I (3)
Prerequisites: MATH 224, and prerequisite or corequisite MATH 247.

MATH 364B Ordinary Differential Equations II (3)
Prerequisite: MATH 364A or MATH 370A.

MATH 380 Probability and Statistics (3)
Prerequisite: MATH 224.

MATH 470 Intro to Partial Differential Equations (3)
Prerequisite: MATH 364A or MATH 370A.

A minimum of 9 units from the following:

MATH 423, MATH 461, MATH 463, MATH 472, MATH 473, MATH 474, MATH 479, MATH 485; STAT 381, STAT 482.

A minimum of 9 units from one of the following groups:
A. PHYS 310, PHYS 340A, PHYS 340B, PHYS 350, PHYS 410, PHYS 422, PHYS 450;
B. EE 310, EE 370, EE 382, EE 460, EE 482;
Suboption II: Application in Economics and Management

Lower Division:
Take all the following courses:

- MATH 122 Calculus I (4)  
  *C or better required.  
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

- MATH 123 Calculus II (4)  
  *C or better required.  
  Prerequisite: A grade of "C" or better in MATH 122.

- MATH 224 Calculus III (4)  
  Prerequisite: A grade of "C" or better in MATH 123.

- MATH 247 Introduction to Linear Algebra (3)  
  Prerequisite: MATH 123.

- CECS 174 Introduction to Programming and Problem Solving (3)  
  Prerequisite: CECS 100 and MATH 113 (or equivalent).

Take the following course:

- ENGL 317 Technical Communication (3)  
  Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take one of the following groups:

1. ECON 100 Principles of Macroeconomics (3)  
   Prerequisites: MATH 103 or higher and one GE Foundation course.

2. ECON 300 Fundamentals of Economics (3)  
   Prerequisites: GE Foundation requirements.

Upper Division:
Take all the following courses:

- MATH 323 Introduction to Numerical Analysis (4)  
  Prerequisites: MATH 224, and a course in computer programming.

- MATH 361A Introduction to Mathematical Analysis I (3)  
  *C or better required.  
  Prerequisites: MATH 224, and MATH 233 or MATH 247.

- MATH 361B Introduction to Mathematical Analysis II (3)  
  Prerequisite: A grade of "C" or better in MATH 361A.

- MATH 364A Ordinary Differential Equations I (3)  
  Prerequisites: MATH 224, and prerequisite or corequisite MATH 247.

- MATH 380 Probability and Statistics (3)  
  *C or better required.  
  Prerequisite: MATH 224.

- STAT 381 Mathematical Statistics (3)  
  Prerequisites: MATH 247 and a grade of "C" or better in MATH 380.

Take a minimum of 12 units from the following courses:

- MATH 364B, MATH 423, MATH 463, MATH 470, MATH 473, MATH 474, MATH 479, MATH 485; STAT 410, STAT 482, including at least one of MATH 474 or MATH 485.

Take a minimum 15 units from one of the following groups:

A. Take both of the following courses:

- ECON 310 Microeconomic Theory (3)  
  Prerequisites: ECON 100, ECON 101, and either MATH 115 or MATH 122, with grades of "C" or better in all prerequisite courses.

- ECON 311 Macroeconomic Theory (3)  
  Prerequisites: ECON 100, ECON 101, and either MATH 115 or MATH 122, with grades of "C" or better in all prerequisite courses.

Take 9 units selected from the following:

- ECON 333, ECON 410, ECON 411, ECON 420, ECON 485, ECON 486

B. Take both of the following courses:

- ECON 333 Managerial Economics (3)  
  Prerequisites: ECON 100, ECON 101 and either MATH 115, MATH 119A, or MATH 122.

- SCM 410 Logistics Management (3)  
  Prerequisites: MGMT 300, IS 301.

Take 9 units selected from the following:

- SCM 411, SCM 414; MGMT 412, MGMT 413

Option in Statistics (120 units)

This option provides a foundation in statistical methods. The courses required ensure that the student understands how the techniques are mathematically derived and how they are applied. Statistical analysis is an essential part of any scientific investigation and is a vital tool in monitoring the quality of products and services and in forecasting.

Requirements

Lower Division:

Take all the following courses:

- MATH 122 Calculus I (4)  
  *C or better required.  
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

- MATH 123 Calculus II (4)  
  *C or better required.  
  Prerequisite: A grade of "C" or better in MATH 122.

- MATH 224 Calculus III (4)  
  Prerequisite: A grade of "C" or better in MATH 123.

- MATH 247 Introduction to Linear Algebra (3)  
  Prerequisite: MATH 123.

- CECS 174 Introduction to Programming and Problem Solving (3)  
  Prerequisite: CECS 100 and MATH 113 (or equivalent).

Take the following course:

- ENGL 317 Technical Communication (3)  
  Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take one of the following groups:

1. ECON 100 Principles of Macroeconomics (3)  
   Prerequisites: MATH 103 or higher and one GE Foundation course.

2. ECON 300 Fundamentals of Economics (3)  
   Prerequisites: GE Foundation requirements.

Upper Division:

Take a minimum of 34 units of MATH or STAT courses to include the following (but not MATH 303, MATH 309, MATH 370A, MATH 370B, or MATH 409):

- MATH 323 Introduction to Numerical Analysis (4)  
  Prerequisites: MATH 224, and a course in computer programming.

- MATH 361A Introduction to Mathematical Analysis I (3)  
  *C or better required.  
  Prerequisites: MATH 224, and MATH 233 or MATH 247.

- MATH 380 Probability and Statistics (3)  
  *C or better required.  
  Prerequisites: MATH 224.

- STAT 381 Mathematical Statistics (3)  
  Prerequisites: MATH 247 and a grade of "C" or better in MATH 380.

Take the following course:

- ENGL 317 Technical Communication (3)  
  Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Upper Division:

Take a minimum of 34 units of MATH or STAT courses to include the following (but not MATH 303, MATH 309, MATH 370A, MATH 370B, or MATH 409):

- MATH 323 Introduction to Numerical Analysis (4)  
  Prerequisites: MATH 224, and a course in computer programming.

- MATH 361A Introduction to Mathematical Analysis I (3)  
  Prerequisites: MATH 224, and MATH 233 or MATH 247.

- MATH 380 Probability and Statistics (3)  
  *C or better required.  
  Prerequisites: MATH 224.

- STAT 381 Mathematical Statistics (3)  
  Prerequisites: MATH 247 and a grade of "C" or better in MATH 380.

- STAT 410 Regression Analysis (3)  
  Prerequisite: STAT 381.
Three units of the elective upper-division MATH or STAT courses may be replaced by MATH 233.

Option in Mathematics Education (120 units)

This option is for students preparing to teach mathematics at the secondary school level. Completion of this option meets subject matter competence requirements for the Single Subject Teaching Credential Mathematics. Consult the department's Mathematics Education Advisor early to plan the program.

Requirements

Lower Division:

Take all the following courses:
- MATH 122 Calculus I (4)
  "C" or better required.
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
- MATH 123 Calculus II (4)
  "C" or better required.
  Prerequisite: A grade of "C" or better in MATH 122.
- MATH 224 Calculus III (4)
  Prerequisite: A grade of "C" or better in MATH 224.
- MATH 233 Fundamental Concepts for Adv Math (3)
  Prerequisite: A grade of "C" or better in MATH 123.
- MATH 247 Introduction to Linear Algebra (3)
  Prerequisite: MATH 123.

Take one of the following courses:
- ENGL 300 Advanced Composition (3)
  Prerequisites: GE Foundation requirements and upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
- ENGL 317 Technical Communication (3)
  Prerequisites: GE Foundation requirements, upper-division standing, and a previous composition course, i.e., ENGL 100, ENGL 102, ENGL 300, or equivalents.

Take one of the following sequences:
- PHYS 151 Mechanics and Heat (4)
  Prerequisite: None
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
  or
- PHIL 170 Critical Reasoning (3)
  Prerequisite/Corequisite: GE Foundation requirements Category A.1 (Written English).
- PHIL 270 Symbolic Logic I (3)
  Prerequisite: None.
  or
- Eight units of a foreign language.

Upper Division:

Take all the following courses:
- MATH 310 History of Early Mathematics (3)
  Prerequisite/Corequisite: At least one of MATH 224 or MATH 233 or MATH 247.
- MATH 341 Number Theory (3)
  "C" or better required.
  Prerequisite: A grade of "C" or better in MATH 233.
- MATH 355 College Geometry (3)
  Prerequisite: MATH 247.
- MATH 380 Probability and Statistics (3)
  "C" or better required.
  Prerequisite: MATH 224.
- MATH 410 History of Modern Mathematics (3)
  Prerequisites: MATH 247, MATH 310 and at least three of the following: MATH 233, MATH 341, MATH 355, MATH 361A, MATH 380.
- MATH 444 Introduction to Abstract Algebra (3)
  Prerequisites: MATH 233 and MATH 247 and a grade of "C" or better in at least one of MATH 341 or MATH 347.
- STAT 381 Mathematical Statistics (3)
  Prerequisites: MATH 247 and a grade of "C" or better in MATH 380.
- MTED 301 Computer Applications in Mathematics for Teachers (3)
  Prerequisites: MTED 110 or MATH 122 or EDSS 300M or concurrent enrollment in EDSS 300M.
- MTED 411 Topics and Issues in Secondary School Mathematics (3)
  Prerequisites: MATH 310, MATH 341, MATH 355, MATH 380, MATH 410, MATH 444; EDSS 300M or consent of the instructor.
- EDSS 300M. Introduction to Teaching - Mathematics (3)
  Prerequisite: Advanced sophomore or junior standing.

Take one of the following courses:
- MATH 361A Introduction to Mathematical Analysis I (3)
  Prerequisites: MATH 224, and MATH 233 or MATH 247.
- MATH 364A Ordinary Differential Equations I (3)
  Prerequisites: MATH 224, and prerequisite or corequisite MATH 247.

Take 3 additional upper division mathematics units excluding: MATH 303, MATH 309, MATH 370A, MATH 370B, MATH 409.

Single Subject Teaching Credential Mathematics

Subject matter competence for the Single Subject Teaching Credential may be demonstrated by completion of the Option in Mathematics Education with (1) a 2.75 GPA or higher in required MATH, MTED, and STAT courses, and (2) no grade lower than a C in those courses. There are alternative means of demonstrating subject matter competence; consult with the Single Subject Mathematics Education Advisor for specific academic advisement. Note that the above demonstration of subject matter competence is required for a Teaching Credential, but is not a requirement of the BS degree.

In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Math teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.
Honors in Mathematics

Students majoring in the B.S. in Mathematics (all options) who would like an enriched academic program that includes a thesis may complete the Honors in the Major program described here. May also complete General Honors through the University Honors Program, in which case the thesis requirement may be met through the Honors in the Major.

Admission Requirements

Admission to the Honors in the Major program will be determined by the Honors in the Major Advisor.
1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B.S. in Mathematics or any of its options.
3. Completion of the following:
   - MATH 122 Calculus I (4)
     Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
   - MATH 123 Calculus II (4)
     Prerequisite: A grade of "C" or better in MATH 122.
   - MATH 224 Calculus III (4)
     Prerequisite: A grade of "C" or better in MATH 123.
   - MATH 247 Introduction to Linear Algebra (3)
     Prerequisite: MATH 123.
   And at least two upper division MATH courses at the time of entry with grades of at least "C" in each course. Students may apply during the semester in which they expect to complete these courses.
4. GPA's of at least 3.500 in all courses in the major and in all upper division courses in the major at the time of application.
5. Submission of an application describing the student's academic background, reasons for applying, and willingness to commit to completion of the requirements, including a thesis.
6. Letter of recommendation from a CSULB faculty member familiar with the student's work and abilities.

Graduation Requirements

1. GPA of at least 3.500 in all upper division courses in the major and in all courses in Items 3, 4, and 5, below.
2. Completion of all requirements for the chosen option of the B.S. in Mathematics.
3. Completion of at least one of the following courses:
   - MATH 347, MATH 423, MATH 451, MATH 461, MATH 463, MATH 472, MATH 479.
   These courses may be included among the upper division units for the major, in item 2, if allowed in the student's major.
4. Completion of at least three units of any combination of: MATH 491 and/or MATH 496.
6. It is a requirement for this Honors in the Major program that the 6 units of MATH 491, MATH 496, and MATH 498H be in addition to the Department of Mathematics and Statistics course requirements for the B.S.
7. Presentation of thesis results in a public forum.

This forum could be at a meeting of a scientific or professional organization or a campus or departmental forum, subject to the approval of the Honors in the Major Advisor.
Substitutions to this program must be approved by the Honors in the Major Advisor.

Minor in Mathematics

Requirements

The Minor in Mathematics is available to any student not majoring in Mathematics or Applied Mathematics.
The student must complete 24 or more semester units as follows:
- MATH 122 Calculus I (4)
  *C or better required.
  Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
- MATH 123 Calculus II (4)
  *C or better required.
  Prerequisite: A grade of "C" or better in MATH 122.
- MATH 224 Calculus III (4)
  Prerequisite: A grade of "C" or better in MATH 123.
- MATH 247 Introduction to Linear Algebra (3)
  Prerequisite: MATH 123.

And take 9 units of upper-division MATH or STAT courses to include MATH 361A but not MATH 303, 309, 370A, or 409.

Minor in Applied Mathematics

Requirements

The Minor in Applied Mathematics is available to any student not majoring in Mathematics or Applied Mathematics.
The student must complete 27 or more semester units as follows:
Lower Division:
- Take all of the following courses:
  - MATH 122 Calculus I (4)
    *C or better required.
    Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
  - MATH 123 Calculus II (4)
    *C or better required.
    Prerequisite: A grade of "C" or better in MATH 122.
  - MATH 224 Calculus III (4)
    Prerequisite: A grade of "C" or better in MATH 123.
  - MATH 247 Introduction to Linear Algebra (3)
    Prerequisite: MATH 123.

Upper Division:
- Take all of the following courses:
  - MATH 323 Introduction to Numerical Analysis (4)
    Prerequisites: MATH 224, and a course in computer programming.
  - MATH 380 Probability and Statistics (3)
    Prerequisite: MATH 224.
  - MATH 364A Ordinary Differential Equations I (3)
    Prerequisites: MATH 224, and prerequisite or corequisite MATH 247.
  - MATH 370A Applied Mathematics I (3)
    Prerequisites: A grade of "C" or better in MATH 123. Not
open to Freshmen.
Take one course from the following:
MATH 364B, MATH 370B, MATH 423, MATH 470,
STAT 381, or STAT 482.

Major in Statistics

Requirements

The Major in Statistics is available to any non-
Mathematics major. The student must complete 26 or more
semester units as follows:
Take all of the following courses:
MATH 122 Calculus I (4)
*C or better required.
Prerequisite: Appropriate MDPT placement or a grade of
"C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
*C or better required.
Prerequisite: A grade of "C" or better in MATH 122.
MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123.
MATH 247 Introduction to Linear Algebra (3)
Prerequisite: MATH 123.
MATH 380 Probability and Statistics (3)
*C or better required.
Prerequisite: MATH 247.
STAT 381 Mathematical Statistics (3)
Prerequisites: MATH 247 and a grade of "C" or better in
MATH 380.
Take any two of the following:
MATH 323, STAT 410, STAT 450, STAT 475, STAT 482,
STAT 484, STAT 485

Graduate Programs

How to Apply
See department's website: www.csulb.edu/depts/math/
To apply for admission to a graduate program in the
Department of Mathematics and Statistics, you must apply
to the department and to the university.
To apply to the department, send one of the following
appropriate prerequisite worksheet (available online
at above website or from the department office) to
the Graduate Advisor by June 1 for fall admission or
November 1 for spring admission:
• Pure Mathematics Prerequisite Worksheet;
• Applied Mathematics Prerequisite Worksheet;
• Applied Statistics Prerequisite Worksheet;
• Mathematics Education for Secondary Teachers
  Prerequisite Worksheet.

Master of Science in Mathematics

Prerequisites

1. A bachelor's degree in mathematics, or a bachelor's
degree with a minimum of 24 upper division units in
mathematics from an accredited college or university;
2. A grade of "C" or better in MATH 247, 361A-B, 364A and
444, or their equivalents. Deficiencies will be determined
by the Graduate Advisor.

Advancement to Candidacy

In addition to University requirements, the student must
have completed all prerequisite courses listed above with
no grade less than "C". Students must have fulfilled the
Graduation Writing Assessment Requirement (GWAR) and
should file for Advancement upon completion of at least six
units (and no more than nine units) on the Program, with at
least a 3.0 GPA. Program of study must be approved by the
appropriate Graduate Advisor, Department of Mathematics
and Statistics Chair, Associate Dean in the College of Natural
Sciences and Mathematics or designee, and Dean of Graduate
Studies.

Requirements

1. A minimum of 30 graduate and approved upper-division units
in mathematics including:
   A. MATH 540
   B. Two additional courses selected from MATH 550, MATH
      561, MATH 562.
   C. Two additional courses selected from MATH 545, MATH
      555, MATH 565, and MATH 566.
   D. An additional 3 units of 500-level mathematics courses.

Three units must be in a course designated as fulfilling the
program requirement in geometry; these courses include
MATH 451, MATH 456, and MATH 542.

2. Complete one of the following culminating activities. (Note:
In order to satisfy the culminating activity requirement
(thesis, project, or comprehensive examination dependent
upon the program), students must earn at least three (3)
units and no more than six (6) units related to the completion
of the culminating activity:
   A. Pass a comprehensive written examination in two areas
      of Pure Mathematics. Specific requirements for passing
      of the comprehensive examinations can be found on the
      Department of Mathematics and Statistics website at
      www.csulb.edu/depts/math.
   B. Subject to the approval of the Pure Mathematics
      Committee in the Department of Mathematics and
      Statistics, write a thesis in mathematics and defend it
      orally.

Option in Applied Mathematics

Prerequisites

1. A bachelor's degree in mathematics, physics, or engineering,
or a bachelor's degree with at least 24 upper division units in
mathematics from an accredited college or university.
2. A grade of "C" or better in MATH 247, MATH 323, MATH
   361A/B, MATH 364A, and 380, or their equivalents.
   Deficiencies will be determined by the Graduate Advisor.

Advancement to Candidacy

In addition to University requirements, the student must
have completed all prerequisite courses listed above, with
no grade less than "C". Students must have fulfilled the
Graduation Writing Assessment Requirement (GWAR) and
should file for Advancement upon completion of at least six
units (and no more than nine units) on the program, with at
least a 3.0 GPA. Program of study must be approved by the appropriate Graduate Advisor, Department of Mathematics and Statistics Chair, Associate Dean in the College of Natural Sciences and Mathematics or designee.

Requirements
1. A minimum of 30 graduate and upper division units approved by the Graduate Advisor, and including:
   A. Three of the following courses:
      MATH 563, MATH 570, MATH 576 and MATH 579.
   B. Three additional courses selected from:
      MATH 520, MATH 521, MATH 564, MATH 573, MATH 574, MATH 575, MATH 577, MATH 578, and the course in 1.A not used to satisfy that requirement.
2. Complete one of the following (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.):
   A. Pass a comprehensive written examination in two subjects of Applied Mathematics. Specific requirements for passing of the comprehensive examinations can be found on the Department of Mathematics and Statistics website at www.csulb.edu/depts/math.
   B. Subject to the approval of the Applied Mathematics Committee in the Department of Mathematics and Statistics, write a thesis in applied mathematics and defend it orally.
   C. Subject to the approval of the Applied Mathematics Committee in the Department of Mathematics and Statistics, complete a non-proprietary applied mathematics thesis project with a local company under the guidance of a faculty advisor in applied mathematics and a project leader from the company. Write a final report on the thesis project and its outcomes, and defend it orally. Specific requirements for completion of the thesis project can be found on the Department of Mathematics and Statistics website at www.csulb.edu/depts/math.

Option in Mathematics Education for Secondary School Teachers
Option in Mathematics Education for Secondary School Teachers is designed for people holding a California Single Subject Teaching Credential in Mathematics and teaching in middle, junior high, or high schools. This option will give students greater expertise in mathematics and mathematics education (curriculum, teaching, learning, assessment and research). The program includes a blend of courses from pure and applied mathematics, statistics, mathematics education, and also may include coursework from the College of Education.

Prerequisites
1. A bachelor’s degree in mathematics or mathematics education, or a bachelor’s degree with at least 24 upper division units in mathematics from an accredited college or university.
2. A California Single Subject Credential in Mathematics.
3. Course work in mathematics should include MATH 247, MATH 310, MATH 341, MATH 355, MATH 361A or MATH 364A and 380 or equivalent with a grade of "C" or better.

Advancement to Candidacy
In addition to University requirements stated elsewhere in this catalog, must have completed prerequisites above and must have satisfied the Graduation Writing Assessment Requirement (GWAR). Must file for Advancement to Candidacy after completion of at least 6 units (and recommend filing before completing 9 units) on Program of Study, with an overall 3.0 grade-point average. Program of Study must be approved by Mathematics Education Graduate Advisor, Department of Mathematics and Statistics Chair and Associate Dean in the College of Natural Sciences and Mathematics or designee.

Requirements
1. A minimum of 30 units of graduate level or approved upper division coursework which includes the following:
   A. A minimum of 9 graduate or approved upper-division units of mathematics, including at least one 500-level mathematics course. If not previously taken for BS or credential, this course of study must include:
      MATH 410 History of Modern Mathematics (3)
      Prerequisites: MATH 247, MATH 310 and at least three of the following: MATH 233, MATH 341, MATH 355, MATH 361A, MATH 380.
      MATH 444 Introduction to Abstract Algebra (3)
      Prerequisites: MATH 233 and MATH 247 and a grade of "C" or better in at least one of MATH 341 or in MATH 347.
   B. A minimum of 15 graduate units of mathematics education including:
      1) Take both of the following:
         MTED 511 Mathematics Teaching and Learning (3)
         Prerequisite: Consent of instructor.
         MTED 512 Curriculum and Assessment in Math (3)
         Prerequisite: MTED 511 or consent of instructor.
      2) At least 9 units in mathematics education chosen in consultation with the Mathematics Education Graduate Advisor from the following courses:
         MTED 540, MTED 550, MTED 560, MTED 580, MTED 590
   C. A minimum of 6 units of approved upper division or graduate electives from mathematics, mathematics education, or approved College of Education courses, chosen in consultation with the Mathematics Education Graduate Advisor. If the student plans to teach at the Community College level, she/he must take at least 18 units of graduate or approved upper division mathematics courses from Parts A and C. If the student intends to do a thesis he/she must take EDP 520 or the equivalent.

2. Complete one of the following two options:
   A. Pass two comprehensive written examinations in mathematics education (one representing MTED 511/512 and one in a selected area - MTED 540, MTED 550, MTED 560, or MTED 580);
   B. Subject to the approval of the Mathematics Education Committee of the Department of Mathematics and Statistics, write a thesis in mathematics education and defend it orally (MTED 698).
Mathematics Education Thesis

Students choosing the thesis option must consult with the Mathematics Education Graduate Advisor to select a thesis advisor. A proposal is then written in consultation with the mathematics education faculty advisor who will guide the student in choosing the thesis topic and supervise the writing process. After a thesis topic is chosen, it must be approved by the Mathematics Education Committee. A thesis committee of three faculty members, including the thesis advisor, is then chosen to approve the final work. During the writing of the thesis report, students must enroll in MTED 698.

Master of Science in Applied Statistics

Prerequisites
1. A bachelor's degree from an accredited college or university.
2. A grade of "B" or better in MATH 247, MATH 380, and STAT 381 or their equivalents.

Advancement to Candidacy

In addition to University requirements, the student must have completed all prerequisite courses listed above, with no grade less than "B". Students must have satisfied the Graduation Writing Assessment Requirement (GWAR) and should file for Advancement upon completion of at least six units (and no more than nine units) of the Program, with at least a 3.0 GPA. Program of study must be approved by the appropriate Graduate Advisor, Department of Mathematics and Statistics Chair and Associate Dean in the College of Natural Sciences and Mathematics or designee.

Requirements
1. A minimum of 30 graduate and 400 level units in statistics (STAT) and could include upper division/graduate non-statistics units approved by the statistics graduate advisor, and including:
   A. STAT 510, STAT 520, STAT 530.
   B. Four additional courses selected from 500 level STAT courses or 400 level STAT courses.
   C. A minimum of 21 units at the 500/600 level, including at least 15 units of graduate courses in statistics (STAT) other than STAT 697 or STAT 698.
2. Complete one of the following:
   A. Pass two comprehensive written examinations in Statistical Inference (STAT 520) and Experimental Design (STAT 530). (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)
   B. Subject to the approval of the Statistics Committee in the Department of Mathematics and Statistics, write a thesis in statistics and defend it orally. A letter grade of B or better in each of STAT 510, 520 and 530 is required. A student's highest grade in a class (not the average of the two grades) is used for the purposes of the thesis requirement.
   C. Subject to the approval of the Statistics Committee in the Department of Mathematics and Statistics, complete a non-proprietary statistical project with an industrial company under the guidance of a faculty advisor in statistics. Write a final report and give an oral presentation of the project and its outcomes to the department. Specific requirements for completion of the project can be found on the department's statistics webpage at www.csulb.edu/depts/math. A letter grade of B or better in each of STAT 510, 520 and 530 is required. A student's highest grade in a class (not the average of the two grades) is used for the purposes of the project requirement. A student must be a full-time or part-time employee with an industrial company and the project topic must be related and benefitted to the current job.

Single Subject Teaching Credential in Mathematics

For information, refer to the undergraduate section in this department.

Early Start Mathematics Courses (ESM)

1. Early Start - Basic Algebra (1)
   Prerequisite: ELM score of 38 or less.
   Arithmetic review, elementary algebra and geometry.
   This course will satisfy the Early Start Program requirement for CSULB bound students. Cannot be taken for credit toward a university degree. Not open to students who are exempt from the ELM.
   Credit/No Credit grading only. (Seminar 15 hrs)

2. Early Start - Elem Algebra-Geometry (3)
   Prerequisite: Prerequisite: ELM Score of 38 or less.
   Arithmetic review, elementary algebra, and some basic geometry concepts. Cannot be taken for credit toward a university degree. Credit/No Credit grading only. Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so.
   Credit/No Credit grading only. (Seminar 45 hrs)

3. Early Start - Enhanced Algebra (1)
   Prerequisite: ELM score between 40 and 48 inclusive.
   Intermediate algebra and geometry.
   This course is designed to satisfy the Early Start Program requirement for CSULB bound students. Cannot be taken for credit toward a university degree. Not open to students who are exempt from the ELM.
   Credit/No Credit grading only. (Seminar 15 hrs)

4. Early Start - Basic Intermediate Algebra (3)
   Prerequisite: Prerequisite: MAPB 1 or ELM Score between 40 and 48 inclusive.
   Linear functions, their graphs, applications; proportions and percent change, applications to geometry and life; operations on radicals; rational exponents and scientific notation; dimensional analysis; sets, Venn diagrams, basic counting principles; combinations, permutations, probability; elementary data analysis; logarithmic, exponential functions, applications.
   For students who will not need to take MATH 113, MATH 114 or MATH 115 or MTED 110. Cannot be taken for credit toward a university degree. Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so. Credit/No Credit grading only. (Lecture 3 hrs.)
33. Early Start - Enhanced Intermediate Algebra (3)
Prerequisite: MAPB 1 or ELM Score between 40 and 48 inclusive.

7. Basic Intermediate Algebra (3)
Prerequisite: MAPB 1 or appropriate ELM Score.
Linear functions, their graphs, applications; proportions and percent change, applications to geometry and life; operations on radicals; rational exponents and scientific notation; dimensional analysis; sets, Venn diagrams, basic counting principles; combinations, permutations, probability; elementary data analysis, logarithmic, exponential functions, applications.

8. Enhanced Intermediate Algebra (4)
Prerequisite: MAPB 1 or appropriate ELM Score.
Polynomial, rational, radical expressions, equations; rational exponents, complex numbers; solutions, graphs of linear, quadratic equations, functions; linear systems; graphs of and operations on functions; including the difference quotient and inverses; logarithmic and exponential functions. Applications to science and business emphasized.

For students that intend to take MATH 113 or MATH 115. Cannot be taken for credit toward a university degree. Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so. Credit/No Credit grading only. (Lecture 4 hrs)

Mathematics Prebaccalaureate Courses (MAPB)

1. Elementary Algebra and Geometry (4)
Prerequisite: Appropriate ELM Score.
Arithmetic review, elementary algebra, and some basic geometry concepts. Cannot be taken for credit toward a university degree.
Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so. Credit/No Credit grading only. (Lecture 4 hrs.)

6. Intermediate Algebra (3)
Prerequisite: MAPB 1 or ELM Score between 40 and 48 inclusive.

Prerequisite: MAPB 1 or appropriate ELM Score.
Polynomial, rational, radical expressions, equations; rational exponents, complex numbers; solutions, graphs of linear, quadratic equations, functions; linear systems; graphs of and operations on functions, including the difference quotient and inverses; logarithmic and exponential functions. Applications to science and business emphasized.

For students that intend to take MATH 113 or MATH 115. Cannot be taken for credit toward a university degree. Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so. Credit/No Credit grading only. (Lecture 4 hrs.)

Mathematics Courses (MATH)

Satisfying the Entry-Level Math (ELM) requirement (see "Undergraduate Programs" section of this catalog) is a prerequisite for all mathematics courses and mathematics education courses. Please contact the ELM Coordinator in the Department of Mathematics and Statistics for details regarding the ELM test score.

LOWER DIVISION

103. Mathematical Ideas (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 7 or MAPB 11.
Surveys variety of concepts in undergraduate mathematics. Includes elementary logic, number systems, rational and real numbers, modular number systems, elementary combinatorics, probability and statistics, using real world examples.
Not open for credit to students with credit in any MATH or MTED course numbered greater than 103, or the equivalent. (Lecture 3 hrs.)

109. Modeling with Algebra (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 7 or MAPB 11.
Data, functions, domain, range, representations of functions (verbal, numerical, graphical, algebraic), visualizing functions (increasing, decreasing, maximum, minimum, concave up, concave down). Linear functions, rate of change, slope, modeling data, systems of linear equations, linear inequalities. Exponentials, logs, growth decay, semi log plots for modeling.
Not open for credit to students with credit in any MATH or MTED course numbered greater than 103, or the equivalent. (Lecture 3 hrs.)

111. Precalculus Trigonometry (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
Trigonometric functions and applications. Arithmetic and graphical representation of complex numbers, polar form, DeMoivre's Theorem.
Not open for credit to students with credit in MATH 101, MATH 117 or MATH 122. (Lecture 3 hrs.)

113. Precalculus Algebra (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
Not open for credit to students with credit in MATH 112, MATH 115, MATH 117, MATH 119A, MATH 120, or MATH 122. For students who will continue to MATH 115, MATH 119A, or MATH 122. (Lecture 3 hrs.)

114. Finite Mathematics (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
Combinatorial techniques and introduction to probability. Equations of lines and systems of linear equations, matrices, introduction to linear programming.
Not open for credit to students with credit in MATH 233 or MATH 380. (Lecture 3 hrs.)

115. Calculus for Business (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
(Lecture 2 hrs., Activity 2 hrs) Not open for credit to students with credit in MATH 119A, MATH 120, or MATH 122.

115Z. Calculus for Business (3)
Prerequisites: ELM or ELM exemption or MAPB 11 or 12.
Only students with contracts through SB 1440 (the STAR Act) may enroll in this class. (Seminar 3 hours.)

119A. Survey of Calculus I (3)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 113.
Functions, limits and continuity, differentiation and integration of functions of one variable including exponential, logarithmic, and trigonometric functions. Graphing, optimization, parametric equations, integration by substitution and by parts, numerical integration.
Applications to the life sciences. Emphasis on problem solving.
Not open for credit to students with credit in MATH 115, MATH 120 or MATH 122. (Lecture 3 hrs.)

634 • Mathematics and Statistics • 2016-2017 CSULB Catalog
119B. Survey of Calculus II (3)
Prerequisite: A grade of "C" or better in MATH 119A or MATH 122.
Functions of several variables, partial derivatives, optimization.
Not open for credit to students with credit in MATH 123 or MATH 224. (Lecture 3 hrs.)

122. Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
(Lecture 3 hrs., problem session 2 hrs.)

123. Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.
Not open for credit to students with credit in MATH 222. (Lecture 3 hrs., problem session 2 hrs.)

173. Programming in Mathematical Software (3)
Prerequisite: MATH 113 or equivalent.
Introduction to basic concepts and fundamental techniques for solving mathematical and scientific problems by using software MatLab and Maple. Structured problem solving and programming.
(Lecture 2 hrs, problem session, 2 hrs.) Letter grade only (A-F).

224. Calculus III (4)
Prerequisite: MATH 123 with a grade of "C" or better.
(Lecture 3 hrs., problem session 2 hrs.)

233. Fundamental Concepts for Advanced Mathematics (3)
Prerequisite: MATH 123 with a grade of "C" or better.
Fundamentals of logic and set theory, counting principles, functions and relations, induction and recursion, introduction to probability, elementary number theory, congruences. Introduces writing proofs.
(Lecture 3 hrs.)

247. Introduction to Linear Algebra (3)
Prerequisite: MATH 123.
Matrix algebra, solution of systems of equations, determinants, vector spaces including function spaces, inner product spaces, linear transformations, eigenvalues, eigenvectors, quadratic forms, and applications. Emphasis on computational methods.
(Lecture 3 hrs.)

297. Directed Study (1-6)
Prerequisite: Consent of instructor.
For students who wish to undertake special study, at the lower division level, which is not a part of any regular course, under the direction of a faculty member. Individual investigation, studies or surveys of selected problems.

UPPER DIVISION

303. Reflections in Space and Time (3)
Prerequisites: GE Foundation requirements, at least one GE Exploration course, upper-division standing.
An experimentally-driven investigation of the mathematical nature of symmetry and patterns. Considers the pervasive appearance and deep significance of symmetry and patterns in art and science.
(Lecture 3 hrs.)

309. Complexity and Emergence (3)
Prerequisites: GE Foundation requirements, at least one GE Exploration course, upper-division standing.
Introduction to complexity science. Qualitative and computational exploration of emergent properties in dynamical systems, fractals, algorithms, networks, self-organizing behavior and selected topics.
Letter grade only (A-F)

310. History of Early Mathematics (3)
Prerequisite/Corequisite: At least one of MATH 224 or MATH 233 or MATH 247.
History of mathematics through seventeenth century, including arithmetic, geometry, algebra, and beginnings of calculus. Interconnections with other branches of mathematics. Writing component; strongly recommended students enrolling have completed the G.E. A.1 requirement.
(Lecture 3 hrs.)

323. Introduction to Numerical Analysis (4)
Prerequisites: MATH 224, and a course in computer programming.
Numerical solution of nonlinear equations, systems of linear equations, and ordinary differential equations. Interpolating polynomials, numerical differentiation, and numerical integration. Computer implementation of these methods.
(Lecture-discussion 3 hrs., problem session 2 hrs.)

341. Number Theory (3)
Prerequisite: A grade of "C" or better in MATH 233.
Divisibility, congruences, number theoretic functions, Diophantine equations, primitive roots, continued fractions. Writing proofs.
(Lecture 3 hrs.)

347. Linear Algebra (3)
Prerequisites: MATH 233 and MATH 247.
In-depth study of linear transformations, vector spaces, inner product spaces, quadratic forms, similarity and the rational and Jordan canonical forms. Writing proofs.
(Lecture 3 hrs.)

355. College Geometry (3)
Prerequisite: MATH 247.
Transformations, motions, similarities, geometric objects, congruent figures, axioms of geometry and additional topics in Euclidean and non-Euclidean geometry. Writing proofs.
(Lecture 3 hrs.)

361A. Introduction to Mathematical Analysis I (3)
Prerequisites: MATH 224, and MATH 233 or MATH 247.
Rigorous study of calculus and its foundations. Structure of the real number system. Sequences and series of numbers. Limits, continuity and differentiability of functions of one real variable. Writing proofs.
(Lecture 3 hrs.)

361B. Introduction to Mathematical Analysis II (3)
Prerequisite: A grade of "C" or better in MATH 361A.
(Lecture 3 hrs.)
364A. Ordinary Differential Equations I (3)
Prerequisites: MATH 224.
Prerequisite/Corequisite: MATH 247.
First order differential equations; undetermined coefficients and variation of parameters for second and higher order differential equations, series solution of second order linear differential equations; systems of linear differential equations; applications to science and engineering.
(Lecture 3 hrs.)

364B. Ordinary Differential Equations II (3)
Prerequisite: MATH 364A or MATH 370A.
Existence-uniqueness theorems; Laplace transforms; difference equations; nonlinear differential equations; stability, Sturm-Liouville theory; applications to science and engineering.
(Lecture 3 hrs.)

370A. Applied Mathematics I (3)
Prerequisite: A grade of "C" or better in MATH 123. Excludes freshmen.
First order ordinary differential equations, linear second order ordinary differential equations, numerical solution of initial value problems, Laplace transforms, matrix algebra, eigenvalues, eigenvectors, systems of differential equations, applications. Not open for credit to mathematics majors. (Lecture 3 hrs.)

370B. Applied Mathematics II (3)
Prerequisite: MATH 364A or MATH 370A.
Arithmetic of complex numbers, functions of a complex variable, contour integration, residues, conformal mapping; Fourier series; separation of variables for partial differential equations. Applications. Not open for credit to mathematics majors. Not open for credit to mathematics majors. (Lecture 3 hrs.)

380. Probability and Statistics (3)
Prerequisite: MATH 224.

409. Strategies for Graduate Admission (1)
Prerequisite: Senior or graduate standing.
The nature and expectations of doctoral programs in Mathematics and related fields. Intensive preparation for GRE mathematics subject exams. Credit/No Credit grading only. Does not satisfy Mathematics major requirements. (Lecture-discussion 1 hr.)

410. History of Modern Mathematics (3)
Prerequisites: MATH 247, MATH 310 and at least three of the following: MATH 233, MATH 341, MATH 355, MATH 361A, MATH 380.
History of mathematics from seventeenth century onward. Development of calculus, analysis, and geometry during this time period. Other topics discussed may include history of probability and statistics, algebra and number theory, logic, and foundations. (Lecture 3 hrs.)

423. Intermediate Numerical Analysis (3)
Prerequisites: MATH 247 and MATH 323.
Numerical solutions of systems of equations, calculation of eigenvalues and eigenvectors, approximation of functions, solution of partial differential equations. Computer implementation of these methods. (Lecture 3 hrs.)

444. Introduction to Abstract Algebra (3)
Prerequisites: MATH 233 and MATH 247 and a grade of "C" or better in at least one of MATH 341 or MATH 347.
Groups, subgroups, cyclic groups, symmetric groups, Lagrange's theorem, quotient groups. Homomorphisms and isomorphisms of groups. Rings, integral domains, ideals, quotient rings, homomorphisms of rings. Fields. Writing proofs. (Lecture 3 hrs.)

451. Differential Geometry (3)
Prerequisite: MATH 364A or MATH 370A.
Structure of curves and surfaces in space, including Frenet formulas of space curves; frame fields and connection forms; geometry of surfaces in Euclidean three space; Geodesics and connections with general theory of relativity. (Lecture 3 hrs.)

456. Dynamics and Geometry of Chaos (3)
Prerequisites: MATH 247, MATH 361A, or consent of instructor.
An introduction to discrete dynamical systems in one and two dimensions. Theory of iteration: attracting and repelling periodic points, symbolic dynamics, chaos, and bifurcation. May include a computer lab component. (Lecture 3 hrs)

461. Introduction to Complex Analysis (3)
Prerequisite: MATH 361A.
Theory and applications of complex variables. Analytic functions, integrals, power series and applications. (Lecture 3 hrs.)

463. Multivariable Calculus (3)
Prerequisites: MATH 224, MATH 247, and MATH 361B.

470. Introduction to Partial Differential Equations (3)
Prerequisite: MATH 364A or MATH 370A.
First and second order equations, characteristics, Cauchy problems, elliptic, hyperbolic, and parabolic equations. Introduction to boundary and initial value problems and their applications. (Lecture 3 hrs.)

472. Fourier Analysis (3)
Prerequisite: MATH 364A or MATH 370A.

473. Scientific Computing (3)
Prerequisites: MATH 323 and MATH 364A or MATH 370A.
Introduction to programming languages. Analysis and implementation of numerical algorithms for linear systems, linear and nonlinear regression, differentiation, integration, optimization and fast convolution using FFT. Basic algorithms for differential equations. Letter grade only (A-F).
**474. Mathematics of Financial Derivatives (3)**
Prerequisites: MATH 364A or MATH 370A, MATH 380, or consent of instructor.
Options, futures, and other financial derivatives; arbitrage; risk-neutral valuation; binomial trees; the log-normal hypothesis; the Black-Scholes-Merton formula and applications; the Black-Scholes-Merton partial differential equation; American options; exotic options; bond models and interest rate derivatives; credit risk and credit derivatives.

**479. Mathematical Modeling (3)**
Prerequisites: MATH 247, MATH 323; MATH 364A or MATH 370A; and consent of instructor.
Introduction to mathematical modeling in the applied sciences, including validation and practical use of various modeling methodologies. Mathematical models in physics, chemistry, biology, and other natural sciences. Applications of computational mathematics in computer science, engineering, finance, and related disciplines.
Letter grade only (A-F).

**485. Mathematical Optimization (3)**
Prerequisites: MATH 247 and at least one of MATH 323, MATH 347 or MATH 380.
Linear and nonlinear programming: simplex methods, duality theory, theory of graphs, Kuhn-Tucker theory, gradient methods and dynamic programming.
(Lecture 3 hrs.)

**491. Honors Seminar in Problem Solving (1)**
Prerequisite: Consent of instructor.
Challenging problems from many fields of mathematics, taken largely from national and worldwide collegiate and secondary school competitions. Students required to participate in at least one national competition.
May be repeated to a maximum of 3 units. (Lecture-discussion 1 hr.)

**495. Topics in Modern Mathematics (3)**
Prerequisite: Consent of instructor.
Topics of current interest from mathematics literature.

**496. Special Problems (1-3)**
Prerequisite: Consent of instructor.
Student investigations in mathematics, applied mathematics, mathematics education, or statistics. May include reports and reviews from the current literature, as well as original investigations.
May be repeated to a maximum of 3 units. Letter grade only (A-F).

**497. Directed Studies (1-6)**
Prerequisites: Junior or senior standing and consent of instructor.
Readings in areas of mutual interest to student and instructor which are not a part of any regular course. A written report or project may be required.
May be repeated to a maximum of 6 units.

**498H. Senior Thesis - Honors (3)**
Prerequisites: Admission to Honors in the Major in Mathematics or to the University Honors Program, and consent of instructor.
Planning, preparation, completion, and oral presentation of a written thesis in mathematics, applied mathematics, mathematics education, or statistics.
Not available to graduate students. Letter grade only (A-F).

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**GRADUATE LEVEL**

**520. Finite Element Method (3)**
Prerequisite: MATH 323, MATH 361A, MATH 364A.
Recommended: MATH 470.
Letter grade only (A-F). (Lecture 3 hrs.)

**521. Matrix Method in Data Analysis and Pattern Recognition (3)**
Prerequisite: MATH 423 or MATH 576.
Vector spaces and linear transformations, optimal orthogonal projections, eigenvalues, eigenvectors, SVD, generalized SVD, Fourier and wavelet transforms, convolution, tangent distance. Implementations include object recognition, handwritten digit classification, digital image processing, feature extraction, image deblurring, text mining.
Letter grade only (A-F). (Lecture 3 hrs.)

**540. Elements of Abstract Algebra (3)**
Prerequisite: MATH 444.
Group theory including symmetric groups; group actions on sets; Sylow theorems and finitely generated abelian groups; ring theory including polynomial rings, division rings, Euclidean domains, principal ideal domains, and unique factorization domains.
Letter grade only (A-F). (Lecture 3 hours).

**542. Algebraic Geometry (3)**
Prerequisite: Consent of instructor.
Introduction to algebraic geometry: Algebraic sets; affine and projective varieties. Additional topics at the discretion of the instructor may include: Algebraic Curves; Intersection Theory; Invariant Theory; Computational Approaches.
Letter grade only (A-F). (Lecture 3 hrs.)

**545. Topics in Abstract Algebra (3)**
Prerequisite: MATH 540.
Selected topics in algebra that build upon the material of MATH 540. Content will vary by semester. May be taken for credit more than once with the consent of the graduate advisor.
Letter grade only (A-F). (Lecture 3 hours).

**550. Elements of Topology (3)**
Prerequisite: MATH 361B.
Fundamentals of point-set topology: metric spaces and topological spaces; bases and neighborhoods; continuous functions; subspace, product spaces and quotient spaces; separation properties, countability properties; compactness, compactification; connectedness; convergence of sequences; other topics, such as nets, filters and metrizability, as time permits.
Letter grade only (A-F). (Lecture 3 hours).

**555. Topics in Topology (3)**
Prerequisite: MATH 550.
Selected topics in topology that build upon the material of MATH 550. Content will vary by semester. May be taken for credit more than once with the consent of the graduate advisor.
Letter grade only (A-F). (Lecture 3 hours).
560. Functional Analysis (3)  
Prerequisites: MATH 247, MATH 361B.  
Linear spaces, metric and topological spaces, normed linear spaces; four principles of functional analysis: Hahn-Banach, Open Mapping, Uniform Boundedness, and Closed Graph theorems; adjoint spaces; normed space convergence, conjugate spaces, and operator spaces; Banach Fixed Point theorem; Hilbert spaces.  
Letter grade only (A-F). (Lecture 3 hours).

561. Elements of Real Analysis (3)  
Prerequisite: MATH 361B.  
Theory of measure and integration, focusing on the Lebesgue integral on Euclidean space, particularly the real line. Modes of convergence. Fatou's Lemma, the monotone convergence theorem and the dominated convergence theorem. Fubini's theorem.  
Letter grade only (A-F). (Lecture 3 hours).

562. Elements of Complex Analysis (3)  
Prerequisite: MATH 361B.  
Axiomatic development of real and complex numbers; elements of point set theory; differentiation and analytic functions, classical integral theorems; Taylor's series, singularities, Laurent series, calculus of residues.  
Letter grade only (A-F). (Lecture 3 hours).

563. Applied Analysis (3)  
Prerequisites: MATH 361B and either MATH 364A or MATH 370A.  
Hilbert Spaces, Lp spaces, Distributions, Fourier Transforms, and applications to differential and integral equations from physics and engineering.  
Letter grade only (A-F). (Lecture 3 hrs.)

564. Applied Nonlinear Ordinary Differential Equations (3)  
Prerequisites: MATH 361B; MATH 364A or MATH 370A.  
Stability and asymptotic analysis, Perturbation methods, Phase plane analysis, Bifurcation, Chaos, Applications to science and engineering.  
(Lecture 3 hrs.)

565. Topics in Real Analysis (3)  
Prerequisite: MATH 561.  
Selected topics in real analysis that build upon the material of MATH 561. Content will vary by semester. May be taken for credit more than once with the consent of the graduate advisor.  
Letter grade only (A-F). (Lecture 3 hours).

566. Topics in Complex Analysis (3)  
Prerequisite: MATH 562.  
Selected topics in real analysis that build upon the material of MATH 562. Content will vary by semester. May be taken for credit more than once with the consent of the graduate advisor.  
Letter grade only (A-F). (Lecture 3 hours).

570. Partial Differential Equations (3)  
Prerequisites: MATH 364A and MATH 463.  
Cauchy's problem; classification of second order equations; methods of solution of hyperbolic, parabolic, and elliptic equations.  
Letter grade only (A-F). (Lecture 3 hrs.)

573. Advanced Scientific Computing (3)  
Prerequisites: MATH 323 and MATH 364A or MATH 370A.  
Analysis and implementation of numerical algorithms for linear systems, linear and nonlinear regression, differentiation, integration, optimization and fast convolution using FFT. Numerical solutions for differential equations.  
Letter grade only (A-F).

574. Stochastic Calculus and Applications (3)  
Prerequisites: MATH 361B, MATH 364A or MATH 370A, MATH 380.  
(Lecture 3 hrs.)

575. Calculus of Variations (3)  
Prerequisites: MATH 361B and either MATH 364A or MATH 370A  
Solution methods for variational problems. First variation, Euler-Lagrange equation, variational principles, problems with constraints, boundary conditions, applications to physics and geometry. May include multiple integral problems, eigenvalue problems, convexity, and second variation.  
Letter grade only (A-F). (Lecture 3 hrs.)

576. Numerical Analysis (3)  
Prerequisites: MATH 323, MATH 361B, MATH 364A.  
Advanced numerical methods. Introduction to error analysis, convergence, and stability of numerical algorithms. Topics may include solution of ordinary differential equations, partial differential equations, systems of linear and nonlinear equations, and optimization theory.  
Letter grade only (A-F). (Lecture 3 hrs.)

577. Numerical Solution of Partial Differential Equations (3)  
Prerequisite: MATH 423 or MATH 576 or consent of instructor.  
(Lecture 3 hrs.)

578. Numerical Linear Algebra (3)  
Prerequisites: MATH 247 and MATH 323 or consent of instructor.  
Letter grade only (A-F). (Lecture 3 hrs.)

579. Advanced Mathematical Modeling (3)  
Prerequisites: MATH 247, MATH 323; MATH 364A or MATH 370A; one additional graduate level mathematics course, and consent of instructor.  
Application of mathematics to develop models of phenomena in science, engineering, business, and other disciplines. Evaluation of benefits and limitations of mathematical modeling.  
Letter grade only (A-F).

590. Selected Topics in Mathematics (3)  
Prerequisite: Consent of Instructor  
Specialized and advanced topics in mathematics. May be repeated to a maximum of 9 units in different or same semester. (3 hours lecture)

695. Seminar in Mathematics (3)  
Prerequisite: Consent of instructor.  
Presentation and discussion of advanced work, including original research by faculty and students. Topics announced in the Schedule of Classes.  
May be repeated to a maximum of 6 units. Letter grade only (A-F).
697. Directed Studies (1-6)  
Prerequisite: Consent of instructor.  
Research on a specific area in mathematics. Topics for study to be approved and directed by faculty advisor in the Department of Mathematics and Statistics.  
Letter grade only (A-F).

698. Thesis or Project (1-6)  
Prerequisite: Advancement to candidacy.  
Formal report of research or project in mathematics. May be repeated to a maximum of six units. Letter grade only (A-F).

Mathematics Education Courses (MTED)

Satisfying the Entry-Level Math (ELM) requirement (see "Undergraduate Programs" section of this catalog) is a prerequisite for all mathematics education courses.

LOWER DIVISION

110. The Real Number System for Elementary and Middle School Teachers (3)  
Prerequisite: ELM or ELM exemption or MAPB 11.  
Introduction to problem solving processes and strategies. Development and analysis of structure, properties, and operations of real number system. Concept and process development using appropriate models, manipulatives, and activities.  
Not open for credit to Mathematics majors. (Lecture 2 hrs., activity 2 hrs.)

201. Computer Applications in Mathematics for Teachers (3)  
Prerequisite: MTED 110 or MATH 122 or EDSS 300M or concurrent enrollment in EDSS 300M  
Designed for pre-service or inservice teachers. Software evaluation; teacher tools (spreadsheets, databases, email, collaborative tools, and applications); mathematics using technology; programming; technology use issues in schools.  
Satisfies California Level I teaching credential computer technology standard. Open for credit to pre-service or in-service teaching credential students only. (Lecture 2 hrs., activity 2 hrs.)

205. Activity Based Probability and Statistics for Elementary and Middle School Teachers (3)  
Prerequisites: ELM or ELM exemption or MAPB 11 and MTED 110.  
Activity-based exploration of randomization, data representation, measures of central tendency and dispersion. Analysis of experiments requiring hypothesizing, experimental design and data gathering. Basic laws of probability and set theory, combinations, permutations, and simulations.  
Not open for credit to Mathematics majors. Letter grade only (A-F). (Lecture 2 hrs., activity 2 hrs.)

211. Geometry and Measurement for Elementary Teachers (3)  
Prerequisites: MTED 110 with a grade of "C" or better and one year of high school geometry.  
Problem solving and hands-on modeling of real-world geometry situations focusing on patterning, informal geometry, congruence, similarity, constructions, transformations, tessellations, measurement in 1, 2, and 3 dimensions (English and Metric units). Computer applications are integrated into the course.  
Not open for credit to Mathematics majors or any student with credit in MTED 312. (Lecture 2 hrs., activity 2 hrs.)

UPPER DIVISION

301. Computer Applications in Mathematics for Teachers (3)  
Prerequisite(s)/Corequisite(s): MTED 110 or MATH 122 or EDSS 300M or concurrent enrollment in EDSS 300M  
Designed for pre-service or inservice teachers. Software evaluation; teacher tools (spreadsheets, databases, email, collaborative tools, and applications); mathematics using technology; programming; technology use issues in schools.  
Satisfies California Level I teaching credential computer technology standard. Open for credit to pre-service or in-service teaching credential students only. (Lecture 2 hrs., activity 2 hrs.)

303. Number Systems, Probability and Statistics for Elementary and Middle School Teachers (3)  
Prerequisite: California Teaching Credential.  
Introduction to problem solving, development, analysis of the structure, properties and operations of the real number system. Concept and process development using appropriate models, manipulatives, and activities. Statistics including data representation, measures of central tendency and dispersion. Basic laws of probability and set theory, combinations, permutations, and simulations.  
Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

312. Geometry and Measurement for Mathematics Specialists in Elementary and Middle Schools (4)  
Prerequisites: MTED 110 and one year of high school geometry. Exploration, conjecture, justification of geometric relationships, applications relevant to teaching geometry (K-10). Problem solving, informal geometry, proof, non-Euclidean geometry, congruency, similarity, constructions, transformations, tessellations, measurement (English and Metric) in 1, 2, and 3 dimensions. Computer construction utility used.  
Not open for credit to Mathematics majors. Letter grade only (A-F). (Lecture 2 hrs., activity 2 hrs.)

402. Problem Solving Applications in Mathematics for Elementary and Middle School Teachers (3)  
Prerequisite(s): (include complete list of course prerequisites) "C" or better in MTED 110, MTED 205, and either MTED 211 or 312 or the equivalent and a course in Critical Thinking.  
Problem solving processes and strategies; interrelates and applies content from many mathematics areas (real number system, algebra, number theory, geometry, measurement, probability and statistics); develops questioning strategies, fostering understanding of algebra and geometry. Technology integrated throughout.  
Not open for credit to Mathematics majors. (Lecture 2 hrs., activity 2 hrs.)

411. Topics and Issues in Secondary School Mathematics (3)  
Prerequisites: MATH 310, MATH 341, MATH 355, MATH 380, MATH 410, MATH 444; EDSS 300M or consent of the instructor.  
Analysis of topics and issues in secondary school mathematics curriculum. Problem solving, mathematical connections, communication, structures, conjecture, proof, manipulatives, technology, assessment. Observations/interview experiences and portfolio assemblage required. Intended for students preparing to enter Single Subject Credential Program in mathematics.  
(Lecture 2 hrs., laboratory 3 hrs.)
415. History of Mathematics for Elementary and Middle School Teachers (4)
Prerequisite: MTED 312 with a grade of "C" or better.
Mathematics ideas throughout history with orientation toward various civilizations and cross-cultural views. Covers origins and interrelationships of areas of K-9 mathematics curriculum, including arithmetic, algebra, geometry, statistics and probability, cryptography, and other mathematics topics.
Not open for credit to mathematics (all options) or statistics majors or for students with credit in MATH 310 or MTED 315. Letter grade only (A-F). (Lecture 2 hrs; activity 2 hrs.)

420. Number Theory for Elementary and Middle School Teachers (4)
Prerequisite: MTED 312 with a grade of "C" or better.
Concepts and justification involving basic properties of natural numbers, mathematics induction, Euclidean algorithm, and the Fundamental Theorem of Arithmetic. Topics include proofs and problem-solving with divisibility, primes and composites, and prime factorization; congruences and other examples.
Not open for credit to mathematics (all options) or statistics majors or for students with credit in MATH 341 or MTED 320. Letter grade only (A-F). (Lecture 2 hrs; activity 2 hrs.)

424. Algebraic Structures for Elementary and Middle School Teachers (4)
Prerequisite: MTED 312 with a grade of "C" or better.
Properties of real and complex numbers, groups, rings, reals and complex fields; polynomial equations and inequalities; polynomial, rational, radical, absolute value, exponential, and logarithmic functions; matrices and vectors.
Not open for credit to mathematics (all options) or statistics majors or for students with credit in MATH 444 or MTED 324. Letter grade only (A-F). (Lecture 2 hrs; activity 2 hrs.)

425. Functions, Models and Concepts of Calculus for Elementary and Middle School Teachers (4)
Prerequisite: MTED 312 with a grade of "C" or better.
Numeric, symbolic, graphical, verbal representation of functions; sequences and sums. Intuitive development of concepts of limit, continuity, derivative, integral. Applications, including differential equations. Algebraic methods and technology emphasized in context of learning calculus. Not open for credit to mathematics (all options) or statistics majors or for students with credit in MTD 325. Letter grade only (A-F). (Lecture 2 hrs; activity 2 hrs.)

495. Special Topics in Mathematics Education (1-3)
Prerequisite: Consent of instructor.
Topics of interest in Mathematics Education.
May be repeated to a maximum of 9 units with different topics in different semesters. Letter grade only (A-F).

GRADUATE LEVEL

500. Advanced Perspectives of Concepts Foundational to Algebra for Teachers (3)
Prerequisite: Multiple Subjects Credential, or consent of instructor.
Analytic investigation of foundational algebra concepts using representations, reasoning and proof, and problem solving. Topics include: number theory, properties of real numbers, proportional reasoning, algebra, discrete mathematics, and functions.
This course will not count toward any M.S. degree options in the Department of Mathematics and Statistics. Letter grade only (A-F). (Lecture 3 hrs.)

511. Mathematics Teaching and Learning (3)
Prerequisite: Consent of instructor.
Theories of mathematics teaching and learning. Key issues in mathematics and mathematics education. Historical development and contemporary views of various theoretical perspectives for teaching and learning mathematics, including the roles of standards and various mathematics and education organizations.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

512. Curriculum and Assessment in Mathematics (3)
Prerequisite: MTED 511 or consent of instructor.
Theories of mathematics curriculum and forms of assessment. Introduces major philosophies, issues, resources, and technologies pertaining to curricula and assessment of mathematics. Relevant histories and contemporary practices of design and implementation of curriculum and assessment of mathematics.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

540. Algebra in the School Curriculum (3)
Prerequisite: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

550. Geometry and Measurement in the School Curriculum (3)
Prerequisite: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Content, curriculum, standards, and research in learning and teaching geometry, spatial sense and measurement in K-12. Justification and proof, applications and abstraction, tools and technology in geometry teaching and learning. Current issues in teaching and learning of geometry and measurement.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

560. Analysis in the Secondary Curriculum (3)
Prerequisites: MTED 511 and MATH 361A; prerequisite or corequisite: MTED 512 or consent of instructor.
Fundamental concepts of calculus, functions, mappings, related topics and proofs in real and complex analysis, relating mathematics analysis to secondary curriculum. Issues and techniques in teaching and learning of mathematical analysis. Examination of mathematics education research and mathematics frameworks.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

580. Probability and Statistics in the School Curriculum (3)
Prerequisite: MTED 511; prerequisite or corequisite: MTED 512 or consent of instructor.
Content, curriculum, and research in learning and teaching probability and statistics in K-12 schools. Includes role of applications, abstraction, tools and technology in probability and statistics teaching and learning.
Letter grade only (A-F). (Lecture and Discussion, 3 hrs.)

590. Special Topics in Mathematics Education (1-3)
Prerequisite: Consent of instructor.
Advanced study of special topics in the field of mathematics education. May be repeated for a total of six units with different topics. Letter grade only (A-F). (Seminar 1-3 hrs.)

697. Directed Studies in Mathematics Education (1-6)
Prerequisites: MTED 511, MTED 512; EDP 520; Advancement to Candidacy; consent of instructor.
Research project in mathematics education.
Letter grade only (A-F).
Statistics Courses (STAT)

Satisfying the Entry-Level Math (ELM) requirement (see "Undergraduate Programs" section of this catalog) is a prerequisite for all statistics courses.

108. Statistics for Everyday Life (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 7 or MAPB 11 or MAPB 12.
Exploratory data analysis, methods of visualizing data, descriptive statistics, misuse and manipulation of data in statistical analysis, probability, binomial and normal distributions, hypothesis testing, correlation and regression, contingency tables. Not open for credit to students with credit in MATH 108, MATH 180, MATH 380; or MTED 105, 205. (Lecture 3 hrs.)

118. Introductory Business Statistics (3)
Prerequisite: Appropriate ELM score, ELM exemption, or MAPB 11.
Sampling methods, data collection, organizing and visualizing, descriptive statistics, random variables, probability distributions, point and interval estimation, hypothesis testing, correlation, regression, contingency tables, applications in business, finance, econometrics, and marketing research. (Lecture 3 hours)

381. Mathematical Statistics (3)
Prerequisites: MATH 247 and a grade of "C" or better in MATH 380.

410./510. Regression Analysis (3)
Prerequisite: STAT 381. (Undergraduates register in STAT 410; graduates enroll in STAT 510.)
Simple linear regression: estimation and inference, prediction, analysis of residuals, detection of outliers, use of transformations. Multiple linear regression: influence diagnostics, multicollinearity, selection of variables, simultaneous estimation and inference, validation techniques. Statistical software for data analysis used. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 480 or MATH 590.

450./550. Multivariate Statistical Analysis (3)
Prerequisite: STAT 381; Prerequisite/Corequisite STAT 410. (Undergraduates register in STAT 450; graduates enroll in STAT 550.)
Discriminate analysis, principal components, factor analysis, cluster analysis, logistic regression, canonical correlation, multidimensional scaling, and some nonlinear techniques. Statistical software used. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 483 or MATH 593.

475. Data Analysis with SAS (3)
Prerequisite: STAT 381 or consent of instructor.
 Topics include: Statistical analysis including extraction, presentation of data in graphical form, creation, modification of datasets, interpretation of output, writing of reports. Provides SAS programming techniques for aforementioned topics preparation for SAS base certification. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 489.

482. Random Processes (3)
Prerequisites: MATH 247 and MATH 380.

484. Actuarial Science: Models (3)
Prerequisite: STAT 381 or consent of instructor.
Statistical techniques applied to risk management. Expected utility theory, individual risk models, compound Poisson distributions and processes, ruin probability and first surplus, stop-loss and proportional reinsurance, statistical survival distributions and life tables, life annuity, actuarial present values, and premiums determination. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 484.

485. Actuarial Science: Financial Mathematics (3)
Prerequisite: STAT 381.
Simple and compound interests, stochastic approaches to interest and annuities, stochastic models of stock, Black-Scholes arbitrage pricing of options and other derivative securities, Markowitz portfolio optimization theory, Ito financial calculus, filtrations and martingales. Letter grade only (A-F). (Lecture 3 hrs.)

495./595. Topics in Modern Statistics (3)
Prerequisite: Consent of instructor. (Undergraduates register in STAT 495; graduates enroll in STAT 595.)
Topics of current interest from statistics literature. Letter grade only (A-F). Course may be repeated to a maximum of 6 units with different topics. (Lecture 3 hrs)

497. Directed Studies (1-6)
Prerequisite: Consent of instructor.
Junior or senior standing and consent of instructor. Not open to graduate students. Letter grade only (A-F).

GRADUATE LEVEL

510./410. Regression Analysis (3)
Prerequisite: STAT 381. (Undergraduates register in STAT 410; graduates enroll in STAT 510.)
Simple linear regression: estimation and inference, prediction, analysis of residuals, detection of outliers, use of transformations. Multiple linear regression: influence diagnostics, multi-collinearity, selection of variables, simultaneous estimation and inference, validation techniques. Statistical software for data analysis used. Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 480 or MATH 590.
520. Statistical Inference (3)
Prerequisite: STAT 381 or consent of instructor.
Properties of a random sample, convergence in probability, law of large numbers, sampling from the normal distribution, the central limit theorem, principles of data reduction, likelihood principle, point estimation, Bayesian estimation, methods of evaluating estimators, hypothesis testing, decision theory, confidence intervals.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 580.

530. Experimental Design (3)
Prerequisite: STAT 381 or consent of instructor.
Design of experiments to permit efficient analysis of sources of variation with application to quality assurance. Factorial and fractional factorial designs; block designs; confounding. Fixed and random effect models. Effects of departure from assumptions; transformations. Response surface techniques. Taguchi methods.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 581.

532. Statistical Quality Control (3)
Prerequisite: STAT 381 or consent of instructor.
Introduction to methods of statistical quality control. Includes control charts, acceptance sampling, process capability analysis, and aspects of experimental design.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 582.

540. Survey Sampling (3)
Prerequisite: STAT 381 or consent of instructor.
Theory and practice of sampling from finite populations. Simple random sampling, stratified random sampling, systematic sampling, cluster sampling, properties of various estimators including ratio, regression, and difference estimators. Error estimation for complex samples.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 583.

544. Statistical Consulting (3)
Prerequisites: STAT 381 and STAT 410/510 or consent of instructor.
The methodology of statistical consulting; guidelines for client-consultant communications, presentations to clients, basics of writing final technical reports, thorough case studies involving advanced statistical analysis, invited client presentations, real-life projects, group discussions, written and oral statistical reports by students.
Letter grade only (A-F). (Lecture 3 hrs.)

550./450. Multivariate Statistical Analysis (3)
Prerequisite: STAT 381; Prerequisite/Corequisite STAT 410. (Undergraduates register in STAT 450; graduates enroll in STAT 550.)
Discriminate analysis, principal components, factor analysis, cluster analysis, logistic regression, canonical correlation, multidimensional scaling, and some nonlinear techniques. Statistical software used.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 483 or MATH 593.

560. Nonparametric Statistics (3)
Prerequisite: STAT 410 or STAT 510, or consent of instructor.
Alternatives to normal-theory statistical methods, analysis of categorical and ordinal data, methods based on ranks, measures of association, goodness of fit tests, order statistics.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 585.

572. Computational Statistics (3)
Prerequisite: STAT 381 or consent of instructor.
Random number generation, sampling and subsampling, exploratory data analysis, Markov chain Monte Carlo methods, density estimation and EM algorithm. Topics of current interest.
Letter grade only (A-F). (Lecture 3 hrs.)

574. Data Mining (3)
Prerequisite: STAT 410, or STAT 510, or consent of instructor.
Basics of data mining algorithms with emphasis on industrial applications. Prediction and classification techniques such as decision trees, neural networks, Multivariate Adaptive Regression Splines, and other methods. Several software packages utilized.
Letter grade only (A-F). (Lecture 3 hrs.) Not open for credit to students with credit in MATH 586.

576. Data Informatics (3)
Prerequisite: STAT 410/510 or consent of instructor.
Genetic algorithms, fuzzy logic, discrete choice analysis, online analytical processing, structured query language, statistical database management, and text and web mining. Topics of current interest.
Letter grade only (A-F). (Lecture 3 hrs.)

580. Time Series (3)
Prerequisite: STAT 381 or consent of instructor.
Includes moving averages, smoothing, Box-Jenkins (ARIMA) models, testing for nonstationarity, model fitting and checking, prediction and model selection, seasonal adjustment, ARCH, GARCH, cointegration, state-space models. Statistical packages used throughout the course.
Letter grade only (A-F). (Lecture 3 hrs.)

590. Statistical Analysis of Medical Data (3)
Prerequisite: STAT 381 or consent of instructor.
Lifetime distributions, hazard and survival functions, censoring and truncation, Kaplan Meier and Nelson-Aelen estimators, Cox proportional hazard models, m-sample tests, goodness-of-fit tests, Bayesian survival analysis, analysis of multivariate survival data, exploring longitudinal data designs and models, clinical trials.
Letter grade only (A-F). (Lecture 3 hrs.)

595./495. Topics in Modern Statistics (3)
Prerequisite: Consent of instructor. (Undergraduates register in STAT 495; graduates enroll in STAT 595.)
Topics of current interest from statistics literature.
Letter grade only (A-F). Course may be repeated to a maximum of 6 units with different topics. (Lecture 3 hrs)

695. Seminar in Applied Statistics (3)
Prerequisite: Consent of instructor.
Presentation and discussion of advanced work in applied statistics. May be repeated to a maximum of six units. Letter grade only (A-F).

697. Directed Studies in Applied Statistics (1-3)
Prerequisite: Consent of instructor.
Research on a specific area in applied statistics. Topic for study to be approved and directed by a statistics faculty member. Credit/No Credit only.

698. Thesis or Project (1-6)
Prerequisite: Advancement to candidacy.
Formal report of research or project in mathematics.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
MECHANICAL AND AEROSPACE ENGINEERING
College of Engineering

Department Chair: Jalal Torabzadeh
Department Office: ECS - 635
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Website: http://www.csulb.edu/colleges/coe/mae


Undergraduate Advisors: Panadda Marayong (ME), Allen Teagle Hernandez (ME), Praveen Shankar (AE), Parviz Yavari (ET)

Extension Program Advisor/Coordinator for Mechanical Engineering: Praveen Shankar (ME)

Graduate Advisors: Bei Lu (ME), Hsin-Piao Chen (AE)

Administrative Support Coordinator: Leanne Hayes

Students desiring detailed information should contact the department for referral to one of the faculty advisors.

Career Possibilities
Mechanical Engineer • Aerospace Engineer • Facilities Engineer • Manufacturing Engineer • Design Engineer • Sales Engineer • Plant Engineer • Safety Engineer • Tool Engineer • Project Engineer • Utilization/Test Engineer • Automotive Engineer • Production Engineer • Manufacturing Engineer • Standards Engineer • Industrial Engineer • Factory Plant Layout Engineer • Material Schedule • Tool Planner • Safety Engineer • Product Safety Engineer • Production Planner • Statistician • Staff Assistant • Specification Writer • Tooling Quality Assurance Worker • Quality Planning Analyst • Process Engineering • Estimator • Manufacturing Engineering • Quality Engineer • Supervisor • Vendor Quality • Production Engineer • Material Schedule • Quality Control Technician • Configuration Analyst • Quality Manager • Production Manager • Industrial Engineering • Production Safety Engineer • Safety Engineer • Metrologist • Liaison Worker • Methods and Time-Study Engineer • Traffic Control Engineer • Technical Sales Representative • Process Engineer • Estimator • Associate Engineer • Field Engineer (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

ABET Accreditation
The Bachelor of Science in Aerospace Engineering and the Bachelor of Science in Mechanical Engineering offered at the Long Beach campus are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The Mechanical Engineering Extension Program offered at Lancaster University Center, Lancaster, CA is undergoing accreditation Review in 2014-2015.

Advisory Council
The Department of Mechanical and Aerospace Engineering is supported by a professional Advisory and Development Council (ADC) comprised of outstanding engineers and executives from industry and government agencies in Southern California. The role of the ADC is to form a liaison between the University and industry and to help the administration and faculty remain informed of modern engineering practices and help with Continuous Improvement Process (CIP).

Programs at a Glance
Undergraduate
• Bachelor of Science in Aerospace Engineering (BSAE);
• Bachelor of Science in Mechanical Engineering (BSME);
• Bachelor of Science in Mechanical Engineering - Undergraduate Extension (BSME)
• *Bachelor of Science in Manufacturing Engineering Technology.

Graduate
• Master of Science in Aerospace Engineering (MSAE);
• Master of Science in Mechanical Engineering (MSME);
• Master of Science in Engineering (MSE) with an emphasis in Management Engineering;
• Ph.D. in Engineering and Industrial Applied Mathematics (offered jointly with Claremont Graduate University).

Student Organizations
Students have the benefit of joining the student chapters of professional societies:
• AIAA (American Institute for Aeronautics and Astronautics)
• ASME (American Society for Mechanical Engineers)
• SAE (Society of Automotive Engineers)
• SPE (Society of Petroleum Engineers)
• ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers)
• SME (Society of Manufacturing Engineers)
• ASQ (American Society of Quality)
• SWE (Society of Women Engineers)
• Tau Beta Pi (Engineering Honor Society)
• Pi Tau Sigma (Mechanical Engineering Honor Society)
• Sigma Gamma Tau (Aerospace Engineering Honor Society)

As student members of professional societies, students can attend local, regional, national, and international meetings and conferences, participate in student contests, become eligible for sponsored scholarships, interact with professionals from industry, and many other benefits.
Undergraduate Programs

MECHANICAL ENGINEERING PROGRAM

The undergraduate program in mechanical engineering offered at the Long Beach campus accepts both freshmen and transfer students. Students are admitted to the program following the university admission guidelines for freshmen and major specific admission criteria for transfer students.

Extension Program

The undergraduate program in mechanical engineering is also offered as an extension program at Lancaster University Center, Lancaster, CA as part of the Antelope Valley Engineering Programs. This special program offered through the College of Continuing and Professional Education (CCPE) only accepts upper division transfer students with specific admission requirements. The extension program is a cohort-based model, allowing students to proceed as a group through the program placing greater emphasis on teamwork.

BSME Program Educational Objectives

The goal of the undergraduate program in mechanical engineering is to produce well-rounded engineers prepared for careers in mechanical engineering or related disciplines, utilizing an excellent education in the fundamentals of engineering mathematics, sciences, and design in order to:

- Category A – 6 units (Written and Oral Communication)
- Category B – 9 units (US history, Constitution & American Ideals, Social Science)
- Category C – 9 units (Humanities, Arts)
- Category D – 9 units (Economics, Social Science)
- Category E – 3 units (Self-Integration)

Degree Progress

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

Requirements
Minimum of 120 units including University General Education requirements. A grade of "C" or better must be achieved in all of the required courses listed below.

Lower Division:
Take all of the following courses:
CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.
CE 205 Analytical Mechanics I (Statics) (3)
Prerequisite: PHYS 151 all with a grade of "C" or better.
Prerequisite/Corequisite: MATH 123.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.
MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.
ENGR 101 Introduction to Engineering Profession (1)
Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122
ENGR 102 Academic Success Skills (1)
Prerequisite: ENGR 101 with a grade of "C" or better.
MAE 172 Introduction to Mechanical Engineering (1)
Prerequisite: Freshman standing or consent of instructor and MATH 111 or MATH 113 or MATH 122 with a grade of "C" or better.
MAE 101B Introduction to Manufacturing Processes (2)
Prerequisite: MAE 172 with a grade of "C" or better.
PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.
Take one of the following choices:
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151 with a grade of "C" or better.
Prerequisite/Corequisite: MATH 123.
or both of the following:
EE 210L Electro-Magnetic Foundations in EE Lab (1)
Upper Division:
Take all of the following courses:
CE 335 Fluid Mechanics (3)
Prerequisites: MATH 224 and C E 205 all with a grade of "C" or better.
CE 336 Fluid Mechanics Laboratory (1)
Prerequisite: ENGL 100 or equivalent all with a grade of "C" or better.
Prerequisite/Corequisite: C E 335.
CE 406 Project Cost-Benefit Analysis (3)
Prerequisite: GE Foundation requirements.
MATH 370A Applied Mathematics I (3)
Prerequisites: A grade of "C" or better in MATH 123. Not open to Freshmen.
MAE 300 Engineering Instrumentation and Measurement (2)
Prerequisites: MATH 224, PHYS 151, PHYS 152 all with a grade of "C" or better.
MAE 305 Numerical Methods in MAE (3)
Prerequisites: MAE 205 and MATH 370A all with a grade of "C" or better.
MAE 322 Engineering Materials and Materials Processes (3)
Prerequisites: CHEM 111A, MATH 123, MAE 172 all with a grade of "C" or better.
MAE 330 Engineering Thermodynamics I (3)
Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A all with a grade of "C" or better or consent of instructor.
MAE 336 Power Plant Design (3)
Prerequisite: MAE 330 with a grade of "C" or better.
MAE 337 Thermal Engineering Laboratory (2)
Prerequisite: MAE 336 with a grade of "C" or better.
MAE 361 Materials and Properties Laboratory (1)
Prerequisites: ENGL 100 or GE Composition (Area A1), MAE 300, MAE 322, MAE 373 all with a grade of "C" or better.
MAE 371 Analytical Mechanics Dynamics (3)
Prerequisites: CE 205, MAE 205, or CE 206 and 206L all with a grade of "C" or better.
MAE 373 Mechanics of Deformable Bodies (3)
Prerequisite: CE 205 all with a grade of "C" or better.
MAE 375 Kinematics & Dynamics of Mechanisms (3)
Prerequisites: MAE 272, MAE 371 all with a grade of "C" or better.
MAE 376 Modeling & Analysis of Dynamic Systems (3)
Prerequisite: MAE 371; MATH 370A all with a grade of "C" or better.
MAE 409A Modern Computational Aspects in Mechanical Engineering (3)
Prerequisites: Senior standing in engineering and consent of instructor.
MAE 431 Heat Transfer Systems Design (3)
Prerequisites: MAE 305, MAE 330; CE 335 all with a grade of "C" or better.
MAE 459 Professional Practice Seminar (1)
Prerequisite: Senior standing or consent of instructor.
MAE 471 Design and Analysis of Mechanical Engineering Systems I (3)
Prerequisites: MAE 373 and MAE 375 all with a grade of "C" or better.
MAE 472 Design and Analysis of Mechanical Engineering Systems II (3)
Prerequisites: MAE 330, MAE 471 all with a grade of "C" or better.
MAE 476 Mechanical Control Systems I (3)
Prerequisite: MAE 376 with a grade of "C" or better.
MAE 490 Special Topics (3)
Prerequisites: Senior standing in engineering and consent of instructor.

AEROSPACE ENGINEERING PROGRAM
BSAE Program Educational Objectives
The goal of the undergraduate program in aerospace engineering is to produce well-rounded engineers prepared for careers in aerospace engineering or related disciplines,
utilizing an excellent education in the fundamentals of engineering mathematics, sciences, and design in order to:

1. Create innovative solutions responsive to customer needs and meeting societal challenges;
2. Apply their knowledge to communicating and translating ideas and plans into working engineering systems;
3. Effectively function as a team member and/or leader in global, multi-disciplinary technical environments.

**Student Learning Outcomes**

The AE program Student Outcomes used to meet the Program Educational Objectives are listed below:

1. The students graduating in aerospace engineering will possess the skills in mathematics, physics and chemistry required to solve real-world problems.
2. The students will have a firm understanding of engineering science fundamentals that enables them to analyze real-world problems and propose an appropriate solution to these problems.
3. The students will have an ability to apply their knowledge in aerospace fundamental disciplines to the analysis and design of components. These aerospace fundamental disciplines include aerodynamics; aerospace materials and structures; propulsion; space environment and space systems; communications and avionics systems; orbital and flight mechanics; and stability & control.
4. The students will have the ability to work in teams and (1) carry out simplified design problems from the conceptual level to the realization of a manufacturing plan, or (2) design complex systems, such as aircraft or spacecraft, from a preliminary design point of view. Projects address economic and business aspects such as commercial viability.
5. The students will have the ability to design and conduct experiments, as well as to analyze and interpret data.
6. The students will have an understanding of professional and ethical responsibility.
7. The students will have the ability to build on their knowledge and will be trained to be lifelong learners, pursuing and interested in independent study, research and development.
8. The students will have good oral, written and graphical communication skills.
9. The students will be trained in the role of the engineer in society, and have an awareness of environmental concerns in the engineering profession.
10. The students will have knowledge of contemporary issues and current projects in aerospace engineering and of technical, design, and business challenges faced by the aerospace industry.

**Bachelor of Science in Aerospace Engineering (120 units)**

The curriculum is designed to supplement mathematics, science and basic engineering courses in order to give students the specialization needed in different areas of aerospace engineering. In addition to acquiring technical knowledge, graduates will have completed appropriate courses in communications and in humanistic social studies.

**Major Declaration**

Freshmen admission to engineering majors is to a ‘pre-major’ status (i.e., Pre-Aerospace Engineering). Continuation in the major will be subject to meeting specific lower division course and GPA requirements at CSULB that indicate the student’s ability to succeed and complete the major. Transfer applicants and CSULB students seeking admission into Aerospace Engineering must also meet similar major specific requirements. To become fully admitted into the Aerospace Engineering major, all prospective students (i.e., pre-majors, undeclared, major changes) must have a minimum cumulative 2.5 GPA and complete the following lower-division courses with a minimum grade of "C" prior to earning 60 units:

- Core Lower Division Major Requirements:
  MATH 122 (Calculus I), MATH 123 (Calculus II), PHYS 151 (Mechanics & Heat)
- General Education Foundations Courses:
  Written and Oral Communication

**Degree Progress**

Students must complete the following requirements within one calendar year of declaring the major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the year, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

- First-Time Freshmen: A grade of "C" or better must be achieved in MATH 122 within one calendar year.
- Transfer Students: A grade of "C" or better must be achieved in MATH 123 and PHYS 151 within one calendar year.

**Requirements**

A grade of "C" or better must be achieved in all of the required courses listed below. A minimum of 120 units is required.

- There are two emphases in the BSAE Program: (1) Aeronautics, and (2) Astronautics. Aeronautics focuses on aerospace engineering as it relates to flight in the atmosphere, while Astronautics addresses space flight.

**Core Requirements**

**Lower Division:**

Take all of the following courses:

- CE 205 Analytical Mechanics I (Statics) (3)  
  Prerequisite: PHYS 151 with a grade of "C" or better.  
  Prerequisite/Corequisite: MATH 123.
- CHEM 111A General Chemistry (5)  
  Prerequisites: A passing score on the Chemistry Placement Examination.  
  Corequisite: MATH 109 or higher.
- ENGR 101 Introduction to Engineering Profession (1)  
  Prerequisite/Corequisite: MATH 111 or MATH 113 or MATH 122.
- ENGR 102 Academic Success Skills (1)  
  Prerequisite: ENGR 101 with a grade of "C" or better.
- MAE 101A Introduction to Aerospace Engineering (1)  
  Prerequisites: Freshman standing or consent of instructor and MATH 111 or MATH 113 or MATH 122 with a grade of "C" or better.
MAE 172 Engineering Design Graphics (2)
Prerequisites: None.

MAE 205 Computer Methods in Mechanical/Aerospace Engineering (2)
Prerequisites: MATH 122 with a grade of "C" or better.

MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.

MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.

MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 223 or MATH 222.

PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.

Take one of the following choices:
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.

or both of the following:
EE 210 Electro-Magnetic Foundations in EE (3)
Prerequisite: PHYS 151 with a grade of "C" or better.
Corequisites: MATH 123, EE 210L.
EE 210L Electro-Magnetic Foundations in EE Lab (1)

Upper Division:
Take all of the following courses:
ECON 300 Fundamentals of Economics (3)
Prerequisites: GE Foundation requirements.

MATH 370A Applied Mathematics I (3)
Prerequisites: A grade of "C" or better in MATH 123. Not open to Freshmen.

MAE 300 Engineering Instrumentation and Measurement (2)
Prerequisites: MATH 224, PHYS 151, PHYS 152 all with a grade of "C" or better.

MAE 305 Numerical Methods in MAE (3)
Prerequisites: MAE 205 and MATH 370A all with a grade of "C" or better.

MAE 330 Engineering Thermodynamics I (3)
Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A all with a grade of "C" or better or consent of instructor.

MAE 333 Engineering Fluid Dynamics (3)
Prerequisites: CE 205, MATH 370A all with a grade of "C" or better.

MAE 334 Aerodynamics I (3)
Prerequisite: MAE 333 all with a grade of "C" or better.

MAE 350 Flight Mechanics (3)
Prerequisite: CE 205 with a grade of "C" or better.

MAE 365 Aerospace Structures I (3)
Prerequisite: MAE 373 with a grade of "C" or better.

MAE 371 Analytical Mechanics II (Dynamics) (3)
Prerequisites: CE 205, MAE 205, or CE 206 and 206L all with a grade of "C" or better.

MAE 373 Mechanics of Deformable Bodies (3)
Prerequisite: CE 205 with a grade of "C" or better.

MAE 374 Mechanical Properties of Materials Lab (1)
Prerequisites: ENGL 100 or equivalent, MAE 373, and MAE 300 all with a grade of "C" or better or consent of instructor.

MAE 381 Fundamentals of Space Dynamics (3)
Prerequisites: PHYS 152, MATH 370A, and MAE 371 all with a grade of "C" or better.

MAE 390 Aerospace Engineering Seminar (1)
Prerequisite: Upper division standing.

MAE 440 Aerodynamics Laboratory (1)
Prerequisites: MAE 300 and MAE 334 all with a grade of "C" or better.

MAE 452 Propulsion (3)
Prerequisites: MAE 330 and MAE 334 all with a grade of "C" or better.

MAE 465 Aerospace Structures II (3)
Prerequisite: MAE 365 with a grade of "C" or better.

MAE 478 Aerospace Systems Design I (3)
Prerequisites: MAE 334, MAE 365, and MAE 381 all with a grade of "C" or better.
Corequisite: MAE 434, MAE 465, or MAE 481.

MAE 479 Aerospace Systems Design II (3)
Prerequisite: MAE 478 with a grade of "C" or better.

Emphasis in Aeronautics:
Take all of the following courses:
MAE 434 Aerodynamics II (3)
Prerequisite: MAE 334 with a grade of "C" or better.

MAE 451 Aircraft Preliminary Design and Performance (3)
Prerequisite: MAE 334, MAE 350 all with a grade of "C" or better, or consent of instructor.

MAE 453 Stability and Control of Aerospace Vehicles (3)
Prerequisite: MAE 350 or equivalent all with a grade of "C" or better.
Corequisite: MAE 334.

Choose one of the following courses:
MAE 422, MAE 431, MAE 435, MAE 454, MAE 476, MAE 481, MAE 483

Emphasis in Astronautics:
Take all of the following courses:
MAE 481 Space Systems Engineering (3)
Prerequisite: MAE 381 with a grade of "C" or better.

MAE 483 Space Flight and Orbital Mechanics (3)
Prerequisites: MAE 381 with a grade of "C" or better.

Choose two of the following courses:
MAE 422, MAE 431, MAE 435, MAE 437, MAE 451, MAE 453, MAE 454, MAE 476

GRADUATE PROGRAMS

The goal of the Master’s programs in mechanical and aerospace engineering, the MSAE and MSAE degrees, is to provide students with the advanced engineering education needed to enhance their careers and pursue doctoral studies. Admission to the MSAE or MSME degree programs requires a minimum GPA of 2.70 in the last 60 (semester) or 90 (quarter) upper-division major units attempted.

Master of Science in Mechanical Engineering
This program involves modern computational and experimental methods knowledge and skills which are of immediate practical importance. This knowledge is communicated in the advanced courses and used in the conduct of a thesis or project. The areas of study within the MSME program include:
• Dynamics, Vibration, Control, and Robotics
• Fluid and Thermal Sciences
• Materials
• Mechanics
• Design and Manufacturing
Further information may be obtained from the Department of Mechanical and Aerospace Engineering’s website: http://www.csulb.edu/colleges/coe/mae.
To be considered for admission, the graduate applicant must have earned a bachelor’s degree from an accredited institution, have been in good standing at the last institution attended, and have a grade point average (GPA) of at least 2.7 for the last 60 (semester) or 90 (quarter) upper-division major units attempted. The general Graduate Record Examination (GRE) is required.

Prerequisites
1. A bachelor's degree in an accredited curriculum in Mechanical Engineering, or other appropriate discipline, with a minimum grade point average of 2.70 in the last 60 (semester) or 90 (quarter) upper-division major units attempted.
2. Students must consult with the MSME graduate advisor prior to enrolling in any courses for their program.
3. Failure to attempt to fulfill the Graduation Writing Assessment Requirement (GWAR) during the first semester in the program will prevent registration in engineering courses in subsequent semesters.
Note: Before being admitted a qualified student without a mechanical engineering undergraduate degree MUST provide a written statement to the MSME graduate advisor that he/she understands that all deficiencies must be removed before attempting graduate-level courses.

Requirements

PLAN I
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Eighteen units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved graduate or 400-level courses from appropriate areas;
3. Completion of six units of MAE 698-Thesis and submission of a written thesis.

PLAN II
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Twenty-four units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved graduate or 400-level courses from approved areas;
3. Completion of a comprehensive written exam. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.

Advancement to Candidacy
Prior to formally starting their thesis or project (registering for MAE 697 or 698), students must apply for Advancement to Candidacy. Students applying for Advancement to Candidacy must:
1. Have completed ALL undergraduate deficiencies with grades of "C" or better;
2. Have attained an overall grade point average (GPA) of 3.0
3. Have completed at least 12 units applicable to the degree with a GPA of at least 3.0;
4. Have completed at least 12 units applicable to the degree with a GPA of at least 3.0;
5. Have fulfilled the Graduation Writing Assessment Requirement (GWAR). This requirement can also be met by presenting evidence that the student met the requirement while an undergraduate at CSULB or at certain CSU campuses.
6. Have their program of studies approved by the faculty coordinating their area of emphasis, the ME program graduate advisor, and department chair.

Master of Science in Aerospace Engineering
This program involves modern computational and experimental methods and provides the essential information which will permit students to acquire the knowledge and skills which are of immediate practical importance. This knowledge is communicated in the advanced courses listed in the MAE curriculum and used in the conduct of a thesis or project. The areas of study within the MSAE program include:
• Space Systems Engineering
• Aircraft Systems Engineering
• Aerodynamics and Computational Fluid Dynamics
• Aerospace Structures and Materials

Both graduate and undergraduate programs benefit from the advice of an advisory committee comprised of senior staff from aerospace companies, government agencies, and universities. Further information may be obtained from the Department of Mechanical and Aerospace Engineering’s website: http://www.csulb.edu/colleges/coe/mae.

To be considered for admission, the graduate applicant must have earned a bachelor’s degree from an accredited institution, have been in good standing at the last institution attended, and have a grade point average (GPA) of at least 2.7 for the last 60 (semester) or 90 (quarter) upper-division major units attempted. The general Graduate Record Examination (GRE) is required.

Prerequisites
1. A bachelor’s degree in an accredited curriculum in Aerospace or Mechanical Engineering with a minimum grade point average of 2.70 in the last 60 (semester) or 90 (quarter) upper-division major units attempted. Applicants with a lower GPA may be admitted, subject to the successful completion of appropriate deficiencies assigned by the graduate advisor.
2. A bachelor’s degree in engineering, mathematics, science or other appropriate discipline, with the requirement that essential undergraduate prerequisites in engineering be satisfied.
3. Graduate students must consult with the graduate advisor for information concerning procedures and requirements for appropriate approval of their courses of study prior to enrolling in their graduate programs.

Requirements

PLAN I
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Eighteen units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved graduate or 400-level courses from appropriate areas;
3. Completion of a comprehensive written exam.

PLAN II
Completion of a minimum of 30 units beyond the bachelor's degree in graduate and 400-level courses approved by the student's Department Graduate Advisor, including:
1. Twenty-four units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved graduate or 400-level courses from appropriate areas;
3. Completion of a comprehensive written exam.

Advancement to Candidacy
Prior to formally starting their thesis or project (registering for MAE 697 or 698), students must apply for Advancement to Candidacy. Students applying for Advancement to Candidacy must:
1. Have completed ALL undergraduate deficiencies with grades of "C" or better;
2. Have attained an overall grade point average (GPA) of 3.0
3. Have completed at least 12 units applicable to the degree with a GPA of at least 3.0;
4. Have fulfilled the Graduation Writing Assessment Requirement (GWAR). This requirement can also be met by presenting evidence that the student met the requirement while an undergraduate at CSULB or at certain CSU campuses.
5. Have their program of studies approved by the faculty coordinating their area of emphasis, the AE program graduate advisor, and department chair.

Master of Science in Engineering
Admission to the MSE graduate program requires a minimum GPA of 2.7 in the last 60 upper-division units attempted. For requirements, see the description in the College of Engineering section of this catalog.

The Mechanical and Aerospace Engineering Department administers two emphases under the Master of Science in Engineering. The other prerequisites and requirements are the same as for the MSAE and MSME programs.

Management Engineering Emphasis
A special management perspective is required for the successful generation of technical products and services. In order to plan, design, direct and control technical projects, technical managers must be capable of inspiring and developing professional personnel. They must be able to integrate planning, manufacturing and budgetary concerns of the project and be able to easily communicate with general management.

This emphasis primarily admits students with a traditional engineering background. It emphasizes the management of engineering-based endeavors and does not require undergraduate business courses as prerequisites for graduate work. An individualized program is developed according to student’s undergraduate degree, area of interest, or industrial application; interdisciplinary approaches are encouraged.

Ph.D. in Engineering and Industrial Applied Mathematics
For requirements, see the description in the College of Engineering section of this catalog.

Courses (MAE)

LOWER DIVISION

101A. Introduction to Aerospace Engineering (1)
Prerequisite: Freshman standing or consent of instructor and MATH 111 or MATH 113 or MATH 122 with a grade of "C" or better.
Role of various types of engineering specialties in the development of an actual aerospace vehicle product. Current social, ethical and environmental issues in Aerospace Engineering solutions. Life-long learning skills using resources from professional societies and Internet are also emphasized.
Letter grade only (A-F). (Lecture-problem 1 hour)

101B. Introduction to Mechanical Engineering (1)
Prerequisite: Freshman standing or consent of instructor and MATH 111 or MATH 113 or MATH 122 with a grade of "C" or better.
Introduction to mechanical engineering as a profession. Past, present, and future trends and related professional opportunities and challenges. Introduction to mechanical engineering curriculum studies. Social, economical, cultural, legal and ethical issues related to mechanical engineering and its applications.
Letter grade only (A-F)

172. Engineering Design Graphics (2)
Letter grade only (A-F). (Lecture-Problems 1 hour, Laboratory 3 hours)
205. Computer Methods in Mechanical and Aerospace Engineering (2)
Prerequisites: MATH 122 with a grade of "C" or better.
Application of computer programming to engineering problem solving. Structured approach to problems. Input-output concepts for both numerical and graphical results.
Letter grade only (A-F). (Lecture-problems 1 hour, laboratory 3 hours)

272. Introduction to Manufacturing Processes (2)
Prerequisite: MAE 172 with a grade of "C" or better.
Manufacturing processes, properties of materials; metals production; foundry, casting, heat treatment; welding, powder metallurgy, plastics, metrology; working metals, press work; machine tool elements, numerical control; metal cutting/turning; drilling, boring, milling; shaping planning, sawing broaching; grinding, sanding; gears, gear-cutting, threads, thread-cutting.
Letter grade only (A-F). (Lecture-problems 1 hour, laboratory 3 hours)

UPPER DIVISION

300. Engineering Instrumentation and Measurement (2)
Prerequisites: MATH 224, PHYS 151, PHYS 152 all with a grade of "C" or better.
Statistical analysis of experimental data, uncertainty analysis, various statistical distributions and test of goodness of fit, correlation coefficient and multivariable regression. Engineering instrumentation include types of passive/active transducers, electronics for instrumentation, computer-based data acquisition, and experiments on pressure, temperature, force measurements.
Letter grade only (A-F). (Lecture-problems 1 hour, Laboratory 3 hours)

305. Numerical Methods in Mechanical and Aerospace Engineering (3)
Prerequisites: MAE 205 and MATH 370A all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-problems 1 hour, Laboratory 3 hours)

305H. Numerical Methods in Mechanical and Aerospace Engineering (3)
Prerequisites: MAE 205 and MATH 370A all with a grade of "C" or better.
Letter grade only (A-F). MAE 305H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 305. (Lecture-problems 3 hours)

322. Engineering Materials and Materials Processes (3)
Prerequisites: CHEM 111A, MATH 123, MAE 172 all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-problems 3 hours)

330. Engineering Thermodynamics I (3)
Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A all with a grade of "C" or better or consent of instructor.
Laws of thermodynamics. Properties of liquids, gases and vapors. Sources of energy and conversion to work. Introduction to heat transfer and psychrometry.
Letter grade only (A-F). (Lecture-problems 3 hours). Same course as MAE 330H. Not open for credit to students with credit in MAE 330H.

330H. Engineering Thermodynamics I (3)
Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A all with a grade of "C" or better or consent of instructor.
Laws of thermodynamics. Properties of liquids, gases and vapors. Sources of energy and conversion to work. Introduction to heat transfer and psychrometry.
Letter grade only (A-F). MAE 330H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 330. (Lecture-problems 3 hours)

333. Engineering Fluid Dynamics (3)
Prerequisites: CE 205, MATH 370A all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-problems 3 hours)

334. Aerodynamics I (3)
Prerequisite: MAE 333 with a grade of "C" or better.
Letter grade only (A-F). (Lecture-problems 3 hours)

336. Power Plant Design (3)
Prerequisite: MAE 330 with a grade of "C" or better.
Design of power production systems, including steam power plants, gas turbines and auxiliary power units. Survey of alternate power sources including wind, solar, geothermal, ocean thermal and biomass. Group and/or individual design projects.
(Lecture-problems 3 hours) Letter grade only (A-F).

337. Thermal Engineering Laboratory (2)
Prerequisite: MAE 336 with a grade of "C" or better.
Thermodynamics, heat transfer and fluid flow property measurements, measurement of heating value of fuels, energy and performance analysis of thermal systems, including internal combustion engines, power and heat generating systems, refrigeration and air-conditioning systems, and heat exchangers.
(Lecture-problems 1 hour, Laboratory 3 hours) Letter grade only (A-F).

350. Flight Mechanics (3)
Prerequisite: CE 205 with a grade of "C" or better.
Turbojets: level and other flights in the vertical plane, turning flight in the horizontal plane. Piston props: level and other flights in the vertical plane, turning flight in the horizontal plane. Performance analysis and design examples.
(Lecture-problems 3 hours). Letter grade only (A-F).
361. Materials and Properties Laboratory (1)
Prerequisites: ENGL 100 or GE Composition (Area A1), MAE 300, 322, 373 all with a grade of "C" or better.
Study of the effects of thermal processing and mechanical processing on the properties and microstructures of metals, alloys, and other materials. Determination of material properties using tensile test, torsion test, and beam test. Study of the statistical nature and reliability of test results.
(Laboratory 3 hours) Letter grade only (A-F).

365. Aerospace Structures I (3)
Prerequisite: MAE 373 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

371H. Analytical Mechanics II (Dynamics) (3)
Prerequisites: CE 205, MAE 205 or CE 206 all with a grade of "C" or better.
Newton’s Laws and the principles of work and energy and impulse and momentum applied to the study of particle and rigid body motion. Engineering application with emphasis on plane motion problems. Individual and/or group projects involving in-depth numerical analysis.
(Lecture-problems 3 hours) Letter grade only (A-F). Same course as MAE 371H. Not open for credit to students with credit in MAE 371H.

373. Mechanics of Deformable Bodies (3)
Prerequisite: CE 205 with a grade of "C" or better.
Application of the principles of mechanics to the design of structural and machine members and connections; stress analysis of beams and columns. Properties and strength of engineering materials. Design projects.
(Lecture-problems 3 hours) Letter grade only (A-F). Same course as MAE 373H. Not open for credit to students with credit in MAE 373H.

373H. Mechanics of Deformable Bodies (3)
Prerequisite: CE 205 with a grade of "C" or better.
Application of the principles of mechanics to the design of structural and machine members and connections; stress analysis of beams and columns. Properties and strength of engineering materials. Design projects.
Letter grade only (A-F). MAE 373H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 373. (Lecture-problems 3 hours)

374. Mechanical Properties of Materials Laboratory (1)
Prerequisites: ENGL 100 or equivalent, MAE 373, and MAE 300 all with a grade of "C" or better or consent of instructor.
Physical and mechanical properties of engineering materials and their relationship to structural elements; accuracy of measurements; statistical analysis of experimental data; professional laboratory reports.
(Laboratory 3 hours) Letter grade only (A-F).

375. Kinematics and Dynamics of Mechanisms (3)
Prerequisites: MAE 272, MAE 371 all with a grade of "C" or better.
Fundamentals of kinematics and dynamics of mechanisms, including structural and mobility considerations; graphical and analytical methods for linkage synthesis and position, velocity and acceleration analysis; cams and gears; analysis of combined static and dynamic forces in mechanisms.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F).

376. Modeling and Analysis of Dynamic Systems (3)
Prerequisite: MAE 371; MATH 370A all with a grade of "C" or better.
(Lecture–problems 3 hours) Letter grade only (A-F).

381. Fundamentals of Spacecraft Dynamics (3)
Prerequisites: PHYS 152 or EE 210 and EE 210L, MATH 370A, and MAE 371, all with a grade of "C" or better.
(Lecture–problems 3 hours). Letter grade only (A-F).

390. Aerospace Engineering Seminar (1)
Prerequisite: Upper-division standing.
Advanced skills capstone course introducing effective oral and written communication techniques. Speakers from industry present professional practice, social responsibilities, ethical issues and latest developments in aerospace engineering. Student teams write reports and make oral presentations on topics in aerospace engineering.
(Seminar 1 hour) Letter grade only (A-F).

408/.508. Systems Engineering and Integration (3)
Prerequisite: Senior standing or consent of instructor.
Introduction to tools and methods employed by systems engineers in aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in the context of integrated product teams and the product life cycle. Trade studies and risk management.
(Lecture-Problems 3 hours) Letter grade only (A-F).
409A. Finite Element Methods I (3)
Prerequisites: Senior standing in engineering and consent of instructor.
  A. Finite Element Methods I
  B. Introduction to Computational Fluid Dynamics and Heat Transfer
Classification of partial differential equations and boundary conditions, finite difference and finite volume formulations, grid generation, stability analysis, numerical methods for inviscid flows, viscous laminar flows, compressible flows, conduction and convection heat transfer.
May be repeated to a maximum of 6 units with consent of department. (Lecture-problems 3 hours.) Letter grade only (A-F).

422./522. Composite Materials (3)
Prerequisite: MAE 373 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

431. Heat Transfer Systems Design (3)
Prerequisites: MAE 305, MAE 330; CE 335 all with a grade of "C" or better.
Analysis of heat transfer by conduction, convection and radiation. Investigation of steady state and transient heat transfer systems. Computer methods. Individual-group design projects problems in heat transfer such as electronic packaging, heat exchangers, heat engines, refrigerators, and thermal systems analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

434. Aerodynamics II (3)
Prerequisite: MAE 334 with a grade of "C" or better.
Compressible flows. Subsonic and supersonic flows around airfoils and wings. Two-dimensional, incompressible boundary layers. Introduction to computational fluid dynamics (CFD). Aerodynamic design considerations. Projects are assigned and written reports are required.
(Lecture-problems 3 hours). Letter grade only (A-F).

435./535. Computational Fluid Dynamics I (3)
Prerequisites: MATH 370A, MAE 333 all with a grade of "C" or better.
Numerical methods for elliptic, parabolic, and hyperbolic equations, finite difference and volume methods, analysis of consistency, stability, and convergence, panel method, modeling and computation of boundary layer flows, full potential equation, grid generation, application to inviscid and viscous subsonic, transonic/ supersonic flows.
(Lecture-Problems 3 hours) Letter grade only (A-F).

438. Heating, Ventilating, Air Conditioning, and Refrigeration (3)
Prerequisites: MAE 330, CE 335 all with a grade of "C" or better.
Basic HVAC system calculations. Thermodynamics and psychometrics, design conditions and load estimating, residential and non-residential heating and cooling load calculations, energy estimating methods, duct and pipe sizing, and life cycle costs.
(Lecture-Problems 3 hours) Letter grade only (A-F).

440. Aerodynamics Laboratory (1)
Prerequisites: MAE 300 and MAE 334 all with a grade of "C" or better.
Experimental techniques in aerodynamics, wind tunnel measurements, use of Pitot tube, hot wire and Laser Doppler Velocimetry systems, flow visualization techniques, calibration of transducers. Computer controlled data acquisition and analysis. Projects are assigned and written reports and oral presentations are required.
Letter grade only (A-F). (Laboratory 3 hours)

451./551. Aircraft Preliminary Design and Performance (3)
Prerequisite: MAE 334, MAE 350 all with a grade of "C" or better, or consent of instructor.
Complete aircraft preliminary design, including mission definition, specifications, and regulations. Preliminary takeoff weight and weight empty for a mission. Aircraft geometric characteristics are developed. Detailed aerodynamic data are estimated and used to calculate aircraft performance. Individual projects required for MAE 551.
The design project is conducted in teams for MAE 451 and individually for MAE 551. (Lecture-Design Project 3 hours) Letter grade only (A-F).

452. Propulsion (3)
Prerequisites: MAE 330 and MAE 334 all with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

453. Stability and Control of Aerospace Vehicles (3)
Prerequisite: MAE 350 or equivalent all with a grade of "C" or better.
Corequisite: MAE 334.
(Lecture-problems 3 hours) Letter grade only (A-F). Same course as MAE 453H. Not open for credit to students with credit in MAE 453H.

453H. Stability and Control of Aerospace Vehicles (3)
Prerequisite: MAE 350 or equivalent all with a grade of "C" or better.
Corequisite: MAE 334.
Letter grade only (A-F). MAE 453H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 453. (Lecture-problems 3 hours)

454. Avionics Systems (3)
Prerequisite: MAE 453 with a grade of "C" or better.
Avionics systems requirements definition and design. Systems used for guidance and navigation. Components of avionics systems (software, integrated circuits, devices, etc.). Integration of optics and electronics. Testing and certification.
(Lecture-Problems 3 hours) Letter grade only (A-F).
459. Professional Practice Seminar (1)
Prerequisite: Senior standing or consent of instructor.
Professional, social and moral responsibilities of engineers. Examination of ethical and legal issues, including intellectual property rights and regulatory codes and practices. Students are encouraged to participate in professional societies and attend professional seminars. Licensure is emphasized.
(Lecture-problems 1 hour) Letter grade only (A-F).

465. Aerospace Structures II (3)
Prerequisite: MAE 365 with a grade of "C" or better.
(Lecture-problems 3 hours). Letter grade only (A-F).

471. Design and Analysis of Mechanical Engineering Systems I (3)
Prerequisites: MAE 373 and MAE 375 all with a grade of "C" or better.
First course in a two-course integrative learning capstone design sequence. Topics include: the design process; design and selection of mechanical components; and written/oral communication. Students begin design projects in teams and progress through the preliminary stages of the design process.
(Lecture-problems 2 hours, Laboratory 3 hours) Letter grade only (A-F).

472. Design and Analysis of Mechanical Engineering Systems II (3)
Prerequisites: MAE 330, MAE 471 all with a grade of "C" or better.
Second course in a two-course integrative learning capstone design sequence. Topics include detailed engineering analysis, design decisions, fabrication of prototypes, and written/oral communication. Student teams complete design project started in MAE 471, culminating in a final design solution. Teamwork Required.
(Lecture-problems 2 hours, Laboratory 3 hours). Letter grade only (A-F).

474./574. Computer–Aided Manufacturing (3)
Prerequisites: MAE 322, MAE 490A all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-Problems 2 hours, Laboratory 3 hours)

476. Mechanical Control Systems I (3)
Prerequisite: MAE 376 with a grade of "C" or better.
(Lecture-problems 2 hours, laboratory 3 hours) Letter grade only (A-F). Same course as MAE 476H. Not open for credit to students with credit in MAE 476H.

476H. Mechanical Control Systems I (3)
Prerequisite: MAE 376 with a grade of "C" or better.
Letter grade only (A-F). MAE 476H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 476.
(Lecture-problems 2 hours, laboratory 3 hours)

478. Aerospace System Design I (3)
Prerequisites: MAE 334, MAE 365, and MAE 381 all with a grade of "C" or better.
Corequisite: MAE 434, MAE 465, or MAE 481.
First course in a two-course integrative learning capstone design sequence. Customer specifications are articulated in a proposal. Student teams define system requirements and work through preliminary design. Extensive design reviews (oral presentations) and written reports required.
Letter grade only (A-F). (Lecture-Design Project 2 hours, Laboratory 3 hours)

479. Aerospace Systems Design II (2)
Prerequisite: MAE 478 with a grade of "C" or better.
Second course in a two-course integrative learning capstone design sequence. Team projects started in MAE 478 are completed. Design for manufacturing. System evaluation verification and validation. Aerospace engineering ethics. Extensive design reviews (oral presentations) and written reports are required.
(Lecture-Design Project 1 hour, Laboratory 3 hours) Letter grade only (A-F).

481. Spacecraft Systems (3)
Prerequisite: MAE 381 with a grade of "C" or better.
Systems engineering approach to spacecraft design. Spacecraft systems engineering and spacecraft and power subsystem. Radiative and conductive heat transfer. Thermal control subsystem. Telecommunications. Command and data handling. Team projects including spacecraft subsystem design are assigned. Written reports and oral presentations are required.
(Lecture-Problems 3 hours) Letter grade only (A-F).

483. Space Flight and Orbital Mechanics (3)
Prerequisites: MAE 381 with a grade of "C" or better.
(Lecture-problems 3 hours). Letter grade only (A-F). Same course as MAE 483H. Not open for credit to students with credit in MAE 483H.

483H. Space Flight and Orbital Mechanics (3)
Prerequisites: MAE 381 with a grade of "C" or better.
Letter grade only (A-F). MAE 483H is open only to students in the Engineering Honors Program. Additional assignments/projects adding depth to the course materials required for Engineering Honors students. Not open for credit to students with credit in MAE 483.
(Lecture-problems 3 hours)
490. Selected Topics in Mechanical and Aerospace Engineering (3)
Prerequisites: Senior standing in engineering and consent of instructor.
Selected topics from recent advances in mechanical and aerospace engineering. Content may vary from semester to semester.
May be repeated to a maximum of 6 units with different topics. (Lecture-problems 3 hours) Letter grade only (A-F).
   A. CAD/CAM
      Prerequisites: MAE 172; MAE 272 or MAE 350; MAE 322 or MAE 365; and MAE 373; upper-division standing or consent of instructor.
      Not open for credit to students with credit in ME 405A.
   B. Robotics Principles
      Prerequisites: MAE 371, MAE 376; upper-division standing or consent of instructor.
      Not open for credit to students with credit in ME 405B.
   C. Energy and Resource Management (3)
      Prerequisites: MAE 330 and MAE 431 all with a grade of "C" or better.
   F. Petroleum Engineering
      Prerequisites: Senior standing in engineering or science.
   G. Mechatronics Systems Design
      Prerequisites: (EE 202 and EE 346) or (MAE 300 and MAE 376) all with a grade of "C" or better or consent of instructor.
      Same course as EE 442. Not open for credit to students with credit in: EE 442.

491. Special Problems (1-3)
Prerequisite: Senior standing.
Assigned topics in technical literature or laboratory projects and reports on same.
Requires consultation with the respective program’s undergraduate advisor and submission of an Agreement for Independent Study form as a contract for the project and submission of a Special Problems Permission form each semester of enrollment. Instructor permission is required. May be repeated to a maximum of 3 units in different semesters. Letter grade only (A-F).

GRADUATE LEVEL

501. Engineering Analysis I (3)
Prerequisite: MATH 370A with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

502. Engineering Analysis II (3)
Prerequisite: MAE 501 with a grade of "C" or better.
Linear algebra, matrix computations, systems of differential equations, eigenvalue problems, iterative solution of systems of algebraic equations, numerical methods for ordinary and partial differential equations, systems of nonlinear equations, optimization.
(Lecture-problems 3 hours) Letter grade only (A-F).

505. Quantitative Methods for Engineering Managers (3)
Prerequisite: MAE 501 or MAE 502 or equivalents all with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

506. Management of Engineering Technology and Innovation (3)
Prerequisite: Graduate engineering standing.
Analysis of the principles and theory of engineering administrative organizations, information systems, management functions, decision making tools, strategies and administrative policy formulations.
(Lecture-problems 3 hours) Letter grade only (A-F).

507. Engineering Project Management (3)
Prerequisite: Graduate engineering standing.
Theory and philosophies of project management, principles of internal and industrial organization planning and control systems, motion in time study, industrial statistics, industrial research as aid to decision making.
(Lecture-problems 3 hours) Letter grade only (A-F).

508./408. Systems Engineering and Integration (3)
Prerequisite: Senior standing or consent of instructor.
Tools and methods employed by systems engineers in aerospace industry. Development of system functions, requirements, verification and validation, and interfaces in context of integrated product teams and the product life cycle. Trade studies and risk management. Projects assigned, written reports and oral presentations are required.
Additional projects required for MAE 508. (Lecture- Problems 3 hours) Letter grade only (A-F).

512./612. Computer Aided Design in Mechanical Engineering (3)
Prerequisites: MAE 490A, MAE 501, MAE 502. (Master’s students register in MAE 512 or MAE 612; Ph.D. students register in MAE 612) all with a grade of "C" or better.
Computer graphics in CAD/CAM. Includes geometrical transformations, viewing in three dimensions, modeling and object hierarchy, representation of 3D shapes, shading models and imaging databases and data transfer.
(Lecture-problems 3 hours) Letter grade only (A-F).

521. Engineering Metallurgy II (3)
Prerequisite: MAE 322 with a grade of "C" or better.
Properties and uses of structural steels: heat treatable steels; titanium alloys; nickel and cobalt base alloys; refractory metals; ultra high-strength steels; stainless steels; and metal matrix composite materials. Designing for fracture resistance.
(Lecture-Problems 3 hours) Letter grade only (A-F).

522./422. Composite Materials (3)
Prerequisite: MAE 373 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).
523. Nanomaterial Properties and Applications (3)
Prerequisite: MAE 322 or equivalent, graduate student standing, or consent of instructor.
Mechanical and material characteristics of hierarchical materials with nanoscale features. Overview of synthesis, characterization techniques and applications of nanomaterials.
Lecture-problems 3 hours. Letter grade only (A-F).

524. Design of Experiments (3)
Prerequisite: MAE 300 or Consent of Instructor
This course aims to develop skills necessary to plan experimental procedures for data collection of physical systems, derive empirical models of the collected data, analyze and validate the developed empirical models, and perform optimization techniques from the empirical models.
Letter grade only (A-F). (Lecture-Problems 3 hours)

527. Metals and Plastics Manufacturing Processes (3)
Prerequisite: MAE 322 with a grade of "C" or better.
Theory of metal forming and plastics processing. Includes metal forming and rolling, metal and plastics extrusion, plastics injection molding, casting. Discussion of appropriate manufacturing methods.
(Lecture-problems 3 hours) Letter grade only (A-F).

528. Advanced Composites Manufacturing (3)
Prerequisite: Graduate standing in ME/AE or consent of instructor.
(Lecture-problems 3 hours) Letter grade only (A-F).

529. Structural Analysis of Composite Laminates (3)
Prerequisite: MAE 522 with a grade of "C" or better or consent of instructor.
(Lecture-Problems 3 hours) Letter grade only (A-F).

531. Advanced Heat Transfer (3)
Prerequisites: MAE 431, MAE 501 all with a grade of "C" or better.
Advanced topics in conduction and convection heat transfer, analytical and numerical solutions to multidimensional heat conduction equations in various geometries. Solutions to laminar and turbulent convective heat transfer problems. External and internal flows, free and forced convection, and mass transfer from external surfaces. Applications in thermal systems design.
(Lecture-problems 3 hours) Letter grade only (A-F).

533. Gas Dynamics (3)
Prerequisite: MAE 333 or equivalent all with a grade of "C" or better.
Isentropic flow, normal and oblique shocks, Prandtl-Meyer flow, shock expansion theory, method of characteristics, nozzle flow, flow in ducts with friction and heat transfer, solutions of linearized potential equation with applications, slender body theory, similarity rules, transonic flow, shock wave/boundary layer interactions.
(Lecture-Problems 3 hours) Letter grade only (A-F).

535. Computational Fluid Dynamics I (3)
Prerequisites: MATH 370A, MAE 333 all with a grade of "C" or better.
Numerical methods for elliptic, parabolic, and hyperbolic equations, finite difference and finite volume methods, analysis of consistency, stability, and convergence, panel method, modeling and computation of boundary layer flows, etc.
Additional projects will be required for MAE 535. (Lecture-Problems 3 hours) Letter grade only (A-F).

537. Advanced Fluid Dynamics I (3)
Prerequisites: CE 335, MAE 431 all with a grade of "C" or better.
Dynamics of ideal, real and compressible flows, potential flow, vortex flow, the Navier Stokes equations, integral and differential equations for laminar flow, exact solutions for laminar flow, steady and unsteady compressible flows.
(Lecture-problems 3 hours) Letter grade only (A-F).

538. HVAC Systems, Energy Ratings and LEEDS (3)
Prerequisites: MAE 330 and CE 335, with a grade of "C" or better.
Building envelope and environment. HVAC equipment and systems. Lighting, green design and energy rating systems, and LEEDS.
Lecture-Problems 3 hours. Letter grade only (A-F).

551./451. Aircraft Preliminary Design and Performance (3)
Prerequisites: MAE 334, MAE 350 all with a grade of "C" or better, or consent of instructor.
Complete aircraft preliminary design, including mission definition, specifications and regulations. Preliminary takeoff weight and weight empty for a specific mission. Aircraft geometric characteristics are developed. Detailed aerodynamic data are estimated and used to calculate aircraft performance. The design project is conducted in teams for MAE 451 and individually for MAE 551.
(Lecture-Design Project 3 hours) Letter grade only (A-F).

561. Fundamentals of Fracture Mechanics (3)
Prerequisite: MAE 373 or consent of instructor
The primary learning objective of the course is to thoroughly understand the basic concepts of linear-elastic fracture mechanics (LEFM) and elastic-plastic fracture mechanics (EPFM) for predicting fracture and crack growth in structural components that contain cracks or crack-like defects.
Letter grade only (A-F). (Lecture-Problems 3 hours)

562. Advanced Mechanics of Deformable Bodies (3)
Prerequisites: MAE 373, MAE 374, MAE 471 all with a grade of "C" or better or consent of instructor.
Analysis of stress and deflection in unsymmetrical bending, shear center for beams, curved beams. Stress concentration, deformation beyond the elastic limit. Energy method; Castigliano's Theorem; Rayleigh-Ritz technique.
(Lecture-problems 3 hours) Letter grade only (A-F).

565. Advanced Flight Dynamics and Control (3)
Prerequisites: MAE 502 or equivalent all with a grade of "C" or better.
Introduces the design and analysis of flight control systems. Topics include linear and nonlinear flight dynamics, state space modeling, stability analysis, modern control system design and simulation.
(Lecture-problems 3 hours) Letter grade only (A-F).

563. Linear Finite Element Analysis (3)
Prerequisite: MAE 409A with a grade of "C" or better.
Finite element FE forms of differential equations. Isoparametric concepts. Dynamic response of damped elastic structures, modal and direct integration analysis. Automatic mesh generation via solid modeling using IDEAS, automatic adaptation to popular software such as STRUDEL, NASTRAN, ANSYS, and ABAQUS. FE fluid flow and heat transfer analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

566. Advanced Mechanics of Deformable Bodies (3)
Prerequisites: MAE 373, MAE 374, MAE 471 all with a grade of "C" or better or consent of instructor.
Analysis of stress and deflection in unsymmetrical bending, shear center for beams, curved beams. Stress concentration, deformation beyond the elastic limit. Energy method; Castigliano's Theorem; Rayleigh-Ritz technique.
(Lecture-problems 3 hours) Letter grade only (A-F).

567. Creep and Fatigue (3)
Prerequisites: MAE 322, MAE 373 all with a grade of "C" or better, or consent of instructor.
Phenomena of creep and fatigue; effect on stress distribution in structural elements; buckling caused by creep; effects of space environment on fatigue; cumulative fatigue damage at normal and elevated temperatures.
(Lecture-problems 3 hours) Letter grade only (A-F).
572. Structural Design Optimization (3)
Prerequisite: MAE 373 with a grade of "C" or better or consent of instructor.
Structural optimization using calculus of variations. Method of Lagrange multipliers, unconstrained and constrained optimization, fast reanalysis techniques, sequential approximate optimization, sensitivity calculations of structural response, variational sensitivity analysis, approximation techniques, optimal design of laminated composite materials etc.
(Lecture-Problems 3 hours) Letter grade only (A-F).

573. Modern Control of Dynamic Systems (3)
Prerequisite: MAE 476 with a grade of "C" or better.
Advanced topics in analysis and design of modern control systems in mechanical engineering. Topics include state space, Riccati and Liapunov equations, Linear Quadratic Regulator (LQR), Kalman filter, etc. Optimization via calculus of variations, Pontryagin’s minimum principle. Control of distributed-parameter systems with applications to structural dynamics.
Letter grade only (A-F). (Lecture-Problems 3 hours)

574./474. Computer-Aided Manufacturing (3)
Prerequisites: MAE 322, MAE 490A all with a grade of "C" or better.
Letter grade only (A-F). (Lecture-Problems 2 hours, Laboratory 3 hours).

575. Robot Modeling and Control (3)
Prerequisites: MAE 371, MATH 370A all with a grade of "C" or better.
(Lecture–problems 3 hours) Letter grade only (A-F).

576. Engineering Vibrations (3)
Prerequisite: MAE 376 with a grade of "C" or better.
Fundamentals of mechanical vibrations, types of oscillatory motions. Single-Degree-of-Freedom (SDOF) and Multiple-Degree-of-Freedom (MDOF) systems. Free and forced vibrations, damping, vibration isolation, vibration measuring instruments, Modal analysis. Lagrange’s equations. Introduction to Finite Element Method and modal testing.
(Lecture-problems 3 hours) Letter grade only (A-F).

577. Biomechanics of Human Movement (3)
Prerequisites: MAE 371 and MATH 370A or Consent of Instructor
The course will include a review of experimental techniques used to study human movement, an introduction to advanced modeling, simulation and motion analysis techniques. Projects and demonstrations emphasize applications of mechanics in robotics, sports, orthopedics, and rehabilitation.
Letter grade only (A-F). (Lecture-Problems 3 hours)

578. Haptic Systems for Virtual Reality and Teleoperation (3)
Prerequisites: MAE 501; MAE 376 or MAE 490B and MAE 476 or equivalent all with a grade of "C" or better.
The course introduces haptic systems, which involve virtual and teleoperated environments that are displayed through force and/or tactile feedback. Topics covered include: human haptic sensing and control, design of haptic interfaces, teleoperation, modeling of virtual environments, control and stability issues.
(Lecture-Problems 3 hours) Letter grade only (A-F).

581. Space Vehicle Design (3)
Prerequisite: Graduate engineering standing or consent of instructor.
Space environments and their impact on spacecraft design. Space mission design. Payloads and communications. Integration of attitude determination and control, thermal, propulsion, configuration, telemetry, power, structures, and data handling subsystems.
(Lecture-Problems 3 hours) Letter grade only (A-F).

582. Rocket and Spacecraft Propulsion (3)
Prerequisite: Graduate engineering standing or consent of instructor.
(Lecture-Problems 3 hours) Letter grade only (A-F).

583. Astrodynamics (3)
Prerequisite: MAE 502 or equivalent all with a grade of "C" or better, or consent of instructor.
(Lecture-problems 3 hours) Letter grade only (A-F).

585. Spacecraft Attitude Determination and Control (3)
Prerequisite: MAE 501 or equivalent all with a grade of "C" or better, or consent of instructor.
Control systems. Spacecraft attitude dynamics and control. Stabilization methods and maneuvers. Impact of flexible structures.
(Lecture-Problems 3 hours) Letter grading only (A-F).

590. Selected Topics in Mechanical and Aerospace Engineering (1-3)
Prerequisites: MAE 501, MAE 502 all with a grade of "C" or better, and other prerequisites as related to the topics offered, or consent of instructor.
Selected topics from recent advances in mechanical or aerospace engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes. (Lecture-problems 3 hours).

612./512. Computer Aided Design in Mechanical Engineering (3)
Prerequisites: MAE 490A, MAE 501, MAE 502. (Master’s students register in MAE 512 or MAE 612; Ph.D. students register in MAE 612) all with a grade of "C" or better.
Computer graphics in CAD/CAM. Includes geometrical transformations, viewing in three dimensions, modeling and object hierarchy, representation of 3D shapes, shading models and imaging databases and data transfer. Additional projects required for MAE 612.
(Lecture-problems 3 hours) Letter grade only (A-F).
631. Thermal Radiation (3)
Prerequisite: Consent of instructor.
Fundamentals of thermal radiation, properties of matter, radiative exchange in enclosures, equation of transfer for radiative transfer in absorbing, emitting, scattering media, gas radiation, and solutions for gas flows.
(Lecture-problems 3 hours) Letter grade only (A-F).

633. Hypersonic Flow (3)
Prerequisite: MAE 533 with a grade of "C" or better.
Hypersonic shock and expansion-wave relations, similarity concepts, Newtonian theory and modified Newtonian theory, nonlinear small-disturbance theory, blunt body flows, hypersonic viscous/inviscid interactions, aerodynamic heating, real gas effects, waveriders, atmospheric reentry.
(Lecture-Problems 3 hours) Letter grade only (A-F).

635./735. Computational Fluid Dynamics II (3)
Prerequisite: MAE 535 with a grade of "C" or better.
Computational methods for solving Euler and Navier-Stokes equations, implicit and explicit schemes, upwind differencing and artificial diffusion, multi-grid techniques and convergence acceleration, unstructured grid techniques, turbulence modeling, application to inviscid and viscous subsonic, transonic, and supersonic flows, inverse problems and aerodynamic shape optimization.
(Lecture-Problems 3 hours) Letter grade only (A-F).

637. Advanced Fluid Dynamics II (3)
Prerequisites: MAE 431, MAE 501, MAE 537 all with a grade of "C" or better.
Transition to turbulent flow, wall bounded and free turbulent shear flows, numerical methods for turbulent flow, turbulence modeling.
(Lecture-problems 3 hours) Letter grade only (A-F).

663./763. Nonlinear Optimized Structures (3)
Prerequisite: MAE 563, or consent of instructor. (Master's students register in MAE 663, Ph.D. students register in MAE 763) all with a grade of "C" or better.
Analysis, optimization of frame with automatic mesh generation using I-DEAS, with popular software such as: STRUDEL, NASTRAN etc. Generation, idealization of complex structures. Sensitivity, Buckling analysis etc. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

669. Design of Composite Structures (3)
Prerequisite: MAE 522 all with a grade of "C" or better or consent of instructor.
(Lecture-Problems 3 hours) Letter grade only (A-F).

672. Stress Analysis in Design (3)
Prerequisite: MAE 567 with a grade of "C" or better or consent of instructor.
Modes of failure and failure criteria. Stability of mechanical models, elastic bars and frames by kinetic and energy approaches; design of columns, beam columns and framed columns. Plastic collapse and limit analysis. Experimental methods of stress analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

673. Theory of Elasticity and Plasticity (3)
Prerequisite: MAE 567 with a grade of "C" or better.
(Lecture-problems 3 hours) Letter grade only (A-F).

678. Robust Control (3)
Prerequisites: MAE 476 (or an equivalent undergraduate course in classical control systems and state-space design methods), MAE 502 (or an equivalent course in linear algebra and matrix theory) all with a grade of "C" or better. Experience in basic programming and MATLAB are highly recommended.
Introduces robust analysis and design for multivariable feedback control systems with uncertain dynamics or unknown parameters. Topics include: uncertainty modeling; robust stability; robust performance; mu synthesis; H infinity control; and applications of linear matrix inequalities.
Letter grade only (A-F). (Lecture-Problems 3 hours)

690. Selected Topics in Mechanical and Aerospace Engineering (1-3)
Prerequisites: MAE 501, MAE 502 all with a grade of "C" or better, and other prerequisites as related to the topics offered, or consent of instructor.
Selected topics from recent advances in mechanical or aerospace engineering.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes. (Lecture-problems 3 hours).

691. Directed Studies (1-3)
Prerequisite: Graduate Standing in a Mechanical and Aerospace Engineering graduate program.
The study of information in the engineering and scientific literature on a current topic in mechanical or aerospace engineering under the direction of a faculty member. Submission of a final written report based on the literature surveyed.
Requires consultation with the respective program's graduate advisor and submission of an Agreement for Independent Study form as a contract for the project and submission of a Directed Studies permission form each semester of enrollment. Instructor permission is required. May be repeated to a maximum of 3 units in different semesters. Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite: Graduate standing. Advancement to Candidacy strongly recommended.
Theoretical and experimental problems in MAE requiring extensive research and analysis. MAE 697 permission form required in each semester of enrollment. Agreement for Independent Study form required once per project topic. May be repeated to a maximum of 3 units in different semesters. Not open for credit to students enrolled in MAE 698. Letter grade only (A-F).

698. Thesis (1-6)
Prerequisites: Graduate standing in a Mechanical and Aerospace Engineering graduate program and Advancement to Candidacy for the degree.
Planning, preparation, and completion of a thesis on a suitable topic in mechanical and aerospace engineering, following the library's prescribed format. The graduate advisor for the respective program and the thesis supervisor must be consulted prior to registration.
Submission of an Agreement for Independent Study form as a contract for the project and submission of a Thesis permission form are required for each semester of enrollment. Instructor permission is required. May be repeated to a maximum of 6 units in different semesters. Not open for credit to students who are enrolled in MAE 697. Letter grade only (A-F).
735./635. Computational Fluid Dynamics II (3)
Prerequisite: MAE 535 with a grade of "C" or better.
Methods for solving Euler and Navier-Stokes equations, implicit and explicit schemes, upwind differencing and artificial diffusion, multi-grid techniques and convergence acceleration, unstructured grid techniques, turbulence modeling, application to inviscid and viscous subsonic, transonic, and supersonic flows, etc.
Additional projects required for MAE 735. (Lecture-Problems 3 hours) Letter grade only (A-F).

763./663. Nonlinear Optimized Structures (3)
Prerequisite: MAE 563, or consent of instructor. (Master’s students register in MAE 663, Ph.D. students register in MAE 763) all with a grade of "C" or better
Analysis, optimization of frame with automatic mesh generation using I-DEAS, with popular software such as: STRUDL, NASTRAN etc. Generation, idealization of complex structures. Sensitivity, Buckling analysis etc. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis.
(Lecture-problems 3 hours) Letter grade only (A-F).

795. Advanced Directed Studies (4)
Prerequisites: Master of Science degree or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics.
Exploration of theoretical and experimental (if applicable) engineering problems in great depth with an emphasis on mathematical modeling and analysis. Students must present the findings in a formal report. Consultation with the respective program's graduate advisor and permission of faculty supervisor are required.
Submission of an Agreement for Independent Study form as a contract for the project and an Advanced Directed Studies permission form are required each semester of enrollment. May be repeated to a maximum of 8 units in different semesters. Letter grade only (A-F).

797. Advanced Directed Research (4)
Prerequisites: Master of Science degree or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics. Exploration of theoretical and experimental (if applicable) engineering problems in great depth, with emphasis on mathematical modeling and analysis. Students must present the findings in a formal report and a seminar. Consultation with the respective program's graduate advisor and permission of faculty supervisor are required.
Submission of an Agreement for Independent Study form as a contract for the project and an Advanced Directed Research permission form are required each semester of enrollment. May be repeated to a maximum of 8 units in different semesters. Letter grade only (A-F).

798. Doctoral Dissertation (4-12)
Prerequisite: Enrollment is limited to students formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics who have passed the preliminary examinations and research tool tests on completion of at least 48 units of course work. A written dissertation proposal containing an outline of the research to be undertaken must be submitted with references to relevant source material. Consultation with the respective program's graduate advisor and permission of faculty supervisor are required. Student may only embark upon the doctoral dissertation after having received a positive recommendation.
Submission of an Agreement for Independent Study form as a contract for the project and an Advanced Directed Research permission form are required each semester of enrollment. Students must enroll in a minimum of 4 units per semester. May be repeated to a maximum of 12 units in different semesters. Letter grade only (A-F).
MEDIEVAL AND RENAISSANCE STUDIES
College of Liberal Arts

Directors: Lloyd E. Kermode, Martine van Elk
Telephone: (562) 985-4212 or (562) 985-4222
Program Office: McIntosh Humanities Building (MHB), Room 512
Faculty: Clorinda Donato (Romance, German, Russian Languages and Literatures), Alicia M. Doyle (Music), Stephen Fleck (Romance, German, Russian Languages and Literatures), Kristine K. Forney (Music), Bonnie Gasior (Romance, German, Russian Languages and Literatures), Cheryl Goldstein (Comparative World Literature), Stanley Jones (Religious Studies), Timothy Keirn (History), Marie Kelleher (History), Lloyd E. Kermode (English), Eileen Klink (English), Julia Miller (Art), Ilan Mitchell-Smith (English), Lawrence Nolan (Philoosophy), Martine van Elk (English), Lisa Vollendorf (Romance, German, Russian Languages and Literatures)

Introduction
The Center offers two academic programs in Medieval and Renaissance Studies, a Minor available to undergraduate students and a Certificate available to both undergraduate and graduate students. The Center also sponsors professional events such as visiting speakers and seminars. Interested students should contact the program directors or visit the Center website at www.csulb.edu/centers/med-ren.

Minor in Medieval and Renaissance Studies
This minor offers an interdisciplinary study of the Middle Ages and the Renaissance. Interested students should contact the program's advisor prior to or during the first semester of taking classes toward the minor. These requirements may be counted, where applicable, toward the General Education requirements, the major, and minor.

The program consists of a minimum of 21 units selected in consultation with the program advisor in addition to demonstrated competence in a foreign language appropriate to the area of concentration. The 21 required units include 12 units of core classes and 9 electives chosen from these courses as well as from Music, Political Science, Philosophy, Religious Studies, RGLL, and Theatre.

Requirements
A. Required courses (12 units):
- Six units chosen from the following:
  - HIST 316, HIST 317, HIST 332, HIST 333.
- Three units of an upper-division course in Literature:
  - CWL 330A, CWL 349†, CWL 414, CWL 422, CWL 430, CWL 432, CWL 449†; ENGL 363, ENGL 451, ENGL 452, ENGL 453, ENGL 462, ENGL 463, ENGL 468, ENGL 469†, ENGL 489†, ENGL 498†; FREN 471, FREN 472, FREN 490†; GERM 398†, GERM 415, GERM 498†; GK 490†; ITAL 335, ITAL 414, ITAL 473, ITAL 490†; LAT 490†; SPAN 330†, SPAN 400, SPAN 438, SPAN 446†, SPAN 450, SPAN 490†.
- Three units of an upper-division course in Art History:
  - AH 408, AH 409, AH 410, AH 423, AH 424, AH 425, AH 426, AH 427, AH 497†, AH 498†.
- Four additional units chosen from courses listed above (without repeating the required core) and the following:
  - AH 470A, AH 470B, HIST 318, HIST 319, HIST 334, HIST 351, HIST 353, HIST 400I, HIST 443, HIST 495†, HIST 499†; MUS 360, MUS 400R, MUS 400S; PHIL 413, PHIL 490†; POSC 493†, POSC 497†; RGR 450; R/ST 314, R/ST 331, R/ST 471, R/ST 472, R/ST 490†; THEA 221, THEA 490†.
† courses that can only count towards the minor if the topic is relevant to Medieval and Renaissance studies.

Certificate in Medieval and Renaissance Studies
Students may only pursue the certificate program in combination with a CSULB degree program.

Requirements
1. A bachelor's degree with an approved major. Certificate may be completed prior to the completion of the B.A. requirement or while in the process of working toward an advanced degree.
2. Consultation and approval of the program with a faculty advisor.
3. Intermediate level language proficiency on the college level, including a course in medieval or Renaissance literature of the language. It is expected that the language will be Anglo-Saxon, French, German, Greek, Italian, Latin, or Spanish, but with consent of the advisor another language may be substituted.
4. Twenty-four units selected from the following courses.
Students should elect to concentrate in either the medieval or Renaissance period.
A. Required courses (12 units):
- One of the following sequences for six units:
  - HIST 316 and HIST 317, HIST 317 and HIST 332, or HIST 332 and HIST 333.
- One of the following literature courses for three units:
  - CWL 330A, CWL 432, CWL 532; ENGL 451, ENGL 452, ENGL 453, ENGL 552, ENGL 553, ENGL 554.
- One of the following Art History courses for three units:
B. Nine units selected from the following courses (without repeating the required core):
- AH 408, AH 409, AH 410, AH 423, AH 424, AH 425, AH 426, AH 427, AH 470A, AH 470B, AH 497†, AH 498†; CWL 330A, CWL 349†, CWL 414, CWL 422, CWL 430, CWL 432, CWL 449†; ENGL 363, ENGL 451, ENGL 452, ENGL 453, ENGL 462, ENGL 463, ENGL 468, ENGL 469†, ENGL 489†, ENGL 498†; FREN 471, FREN 472, FREN 490†; GERM 398†, GERM 415, GERM 498†, GK 490†; ITAL 335, ITAL 414, ITAL 473, ITAL 490†; LAT 490†; SPAN 330†, SPAN 400, SPAN 438, SPAN 446†, SPAN 450, SPAN 490†.
- Four of the following courses (without repeating the required core):
  - AH 470A, AH 470B, HIST 318, HIST 319, HIST 334, HIST 351, HIST 353, HIST 400I, HIST 443, HIST 495†, HIST 499†; ITAL 335, ITAL 414, ITAL 473, ITAL 490†; LAT 490†; MUS 360, MUS 400R, MUS 400S; PHIL 413, PHIL 490†; POSC 493†, POSC 497†; RGR 450; R/ST 314, R/ST 331, R/ST 471, R/ST 472, R/ST 490†; SPAN 330†, SPAN 400, SPAN 438, SPAN 446†, SPAN 450, SPAN 490†; THEA 221, THEA 490†. Graduate courses:
  - AH 508, AH 509, AH 510, AH 523, AH 524, AH 525, AH 527.
C. Three units of directed research on a medieval or Renaissance topic in any of the following courses:

Undergraduate courses:
- AH 495, AH 496; CWL 499; ENGL 499; FREN 499;
- GERM 499; GK 499; HIST 498; ITAL 499; LAT 499;
- MUS 499; PHIL 499; POSC 499; R/ST 499; SPAN 499;
- THEA 498.

Graduate courses:
- AH 595, AH 596; ENGL 598, ENGL 697; FREN 697;
- GERM 599, GERM 697; HIST 695, HIST 697; PHIL 697; POSC 599, POSC 697; R/ST 697; SPAN 599;
- THEA 694.

†With an approved medieval or Renaissance topic;
certain special studies topics may be repeated for credit with approval.
Leader Development/Assessment Course

The Advanced Course is a two-year period. To become a Cadet, students must complete the Basic Course, ROTC Summer Basic Camp, or Basic Training. The Cadet must also make a commitment to attend all required training activities and sign a contract to accept a commission in the United States Army. In return, the Military Science Department will provide $350 - $500 a month, classroom instruction, leadership opportunities, and feedback on cadet’s leadership progress. A 32-day summer training camp will be provided for assessing and developing the cadet’s leadership abilities. Cadets receive pay at the rate of one-half of Second Lieutenant's basic pay. Upon successful completion of the Advanced Course and graduation from the university, cadets will be eligible to be commissioned as a Second Lieutenant in the United States Army.

Required Related General Education Subjects

1. Written Communications: (Category A) ENGL 100
2. Human Behavior: (Category D) POSC 100
3. Computer Literacy
4. Mathematical Reasoning: (Category B) MATH 103 or MATH 110

Courses (M S)

LOWER DIVISION
(Open to all University students)

101. Foundations of Officership (1)
Corequisite for ROTC Cadets: MS 101L.
Introduction to issues and competencies that is central to a commissioned officer's responsibilities, including: the Army Profession; personal development; physical well-being, leadership; values and ethics.
Letter grade only (A-F).

101L. Leadership Laboratory (1)
Prerequisites: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 101.
Credit/No Credit grading only. (Activity 2 hours.)

102. Basic Leadership (1)
Prerequisite/Corequisite: MS 101 or consent of instructor.
Corequisite for ROTC Cadets: MS 102L.
Expands upon topics introduced in MS 101 by focusing on communications, leadership, and problem solving. Course also includes information about the organization of the Army, employment benefits, and work experience of Junior Officers.
Letter grade only (A-F).

102L. Leadership Laboratory (1)
Prerequisites: Accepted as a cadet in the Army ROTC Program; Corequisite: MS 102.
Credit/No Credit grading only. (Activity 2 hours.)
201. Individual Leadership Studies (2)
Prerequisites: MS 101, MS 102 or concurrent enrollment in MS 102.
Corequisite for ROTC Cadets: MS 201L.
Using principles of action, experiential and discovery learning, students face challenging physical and mental tasks, including: personal development, goal setting, communication, problem solving, decision making, leadership, teamwork, group processes, stress management, physical fitness and application of lessons to officership.
Letter grade only (A-F).

201L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 201.
Credit/No Credit grading only. (Activity 4 hours.)

202. Leadership and Teamwork (2)
Prerequisite: MS 201 or consent of instructor.
Corequisite for ROTC Cadets: MS 202L.
Continuation of MS 201. Continues to employ the principles of action, experiential, and discovery teaming.
Letter grade only (A-F).

202L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 202.
Credit/No Credit grading only. (Activity 4 hours.)

UPPER DIVISION

301. Leadership and Problem Solving (3)
Prerequisites: MS 202 and consent of instructor.
Corequisite for ROTC Cadets: MS 301L.
Enables students with no prior military or cadet experience to learn essential cadet knowledge and skills necessary for the integration into the cadet battalion and successful performance of key cadet tasks. Students are introduced to the Leadership Development Program.
Letter grade only (A-F).

301L. Leadership Laboratory (1)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 301.
Serve in leadership positions in the military chain of command at squad, platoon, and company levels. Develop and execute unit plans and orders; train other students in basic skill building, teamwork, execute small unit tactics, and prepare for Leadership Development and Assessment Course.
Credit/No Credit grading only.

302. Leadership and Ethics (3)
Prerequisites: MS 301 and consent of instructor.
Corequisite for ROTC Cadets: MS 302L.
Continues the development of students as leaders in foundational areas of leadership, interpersonal communications, values and ethics.
Letter grade only (A-F).

302L. Leadership Laboratory (1)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 302.
Students serve in leadership positions in military chain of command at squad, platoon and company levels. Develop and execute unit plans and orders; train other students in basic skill building, teamwork, execute small unit tactics, and prepare for the Leadership Development and Assessment Course training and evaluation.
Credit/No Credit grading only.

401. Leadership and Management (3)
Prerequisites: MS 302 and consent of instructor.
Corequisite for ROTC Cadets: MS 401L.
Begin the final transition from cadet to lieutenant. Focus on the Army's training management system, coordinating activities with staff, and counseling skills.
Letter grade only (A-F).

401L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 401.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (Activity 4 hours.)

402. Officership (3)
Prerequisites: MS 302 and consent of instructor.
Corequisite for ROTC Cadets: MS 402L.
Complete transition from cadet to Lieutenant. Examine unit ethical climate and commander's role as moral anchor of unit. Topics include military law and leadership, Army organization, tactical and strategic operations, administrative and logistical management. Includes Leadership Development and Assessment Course Capstone Exercise.
Letter grade only (A-F).

402L. Leadership Laboratory (2)
Prerequisite: Accepted as a cadet in the Army ROTC Program;
Corequisite: MS 402.
Credit/No Credit grading only. May be repeated to a maximum of 4 units. (Activity 4 hours.)

411. U.S. Military History (3)
Corequisite for ROTC Cadets: MS 401L or MS 402L.
Evolution of the art of war with emphasis placed on the changing nature of warfare as nations adjust to social, political, economic and technological developments.
Letter grade only (A-F).

497. Independent Studies (1-3)
Prerequisites: Consent of Program Director and prior approval of topic.
Individual studies with faculty supervision in an area of Military Science specialization.
Letter grade only (A-F). Limited to a maximum of 3 units per semester. May be repeated to a maximum of 6 units.
MUSIC
BOB COLE CONSERVATORY OF MUSIC
College of the Arts

Director: Carolyn Bremer
Conservatory Office: University Music Center (UMC), Room C306
Telephone: (562) 985-4781
Website: www.csulb.edu/music


Advisors:
Undergraduate: Leland Vail
Graduate Advisor: Alicia Doyle
Counselor: Daniel Zanutto

Applied Music
Contact the Bob Cole Conservatory of Music for a complete list of applied faculty or visit the conservatory’s website at www.csulb.edu/music

Administrative Coordinator: Stacia Ticer

Students desiring information should contact the Conservatory office for referral to one of the faculty advisors: Undergraduate Advisor, Music Education (credential) Advisor or Graduate Advisor.

Career Possibilities
Performer • Choral Director • Instrumental Conductor • Music Teacher • Music Director • Composer/Arranger • Copyist • Musical Instrument Sales Representative • Music Librarian • Music Critic • Music Editor • Performing Arts Manager (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The undergraduate music curriculum provides programs for the student: who wishes to become a professional musician; who wishes to enter the teaching profession; for whom music is part of a general education; or who is intending to pursue an advanced degree in music.

All entering freshmen and transfer students are required to take a theory placement test and performance audition which are regularly administered in Spring and Fall and are also available at the beginning of registration week each semester. Each entering student should inquire at the Conservatory office for dates and details. In addition, new students are required to meet with the advisor prior to registration.

Each music major must declare a specialization in some performance area (voice, piano, or other orchestral instrument), develop ability in this area, appear in student recitals, and demonstrate progress to the satisfaction of the faculty. NOTE: Due to admissions limitations, the conservatory does not provide instruction in acoustic guitar. A limited number of jazz guitar students will be admitted each year.

All undergraduate music majors are required to pass a screening examination in applied music on their primary instrument or voice before advancement to upper division applied study. This Upper Division Screening Exam (UDSE) will cover repertoire that is determined by each applied area. Specific information regarding the test may be obtained in the Conservatory office or from the advisor. The exam will be administered at a regular jury after four (4) semesters of applied study; however transfer students may elect to take it earlier. Failure to pass the exam will result in automatic suspension of all music conservatory scholarship aid and continued applied study.

Each student must pass a piano proficiency examination regardless of the performance area (piano majors excepted). Detailed information may be obtained in the Conservatory office.

All music majors must audition for, and perform in, a major performance organization (MUS 100/300) each semester and the ensemble must be approved by the Conservatory.

The Bob Cole Conservatory of Music offers graduate study leading to the Master of Arts or Master of Music degrees. The candidate should arrange for counseling with the Graduate Advisor through the Conservatory office. Special placement examinations or auditions are required to validate qualifications for graduate work in music.

All general requirements of the University must be met in addition to conservatory requirements listed below. California State University, Long Beach is an accredited Institutional Member of the National Association of Schools of Music (NASM), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

Undergraduate Programs

Bachelor of Arts in Music (120 units)
A non-performance-focused degree that sets music within the broader context of interdisciplinary studies, diversity, and contemporary thought. This degree has a basic music core, upper-division elective music units focused on popular, world, and film music as well as art music, an individualized track of non-music elective studies that focuses in at least two other disciplines (one major area and one or more minor areas), and a final research project culminating in a comprehensive senior paper.

The project draws on an outside discipline from the student's coursework in Interdisciplinary

2016-2017 CSULB Catalog • Music • 663
An audition is required prior to admission to assess performance standard. All applicants to the program must meet with the BA advisor prior to, or at the beginning of, the first semester of residence to review the statement of purpose and to draw up an individualized study plan.

Requirements

Music Theory (15-16 units)
Take all of the following:
- MUS 141A Musicianship I (2)
  Corequisite: MUS 142A.
- MUS 141B Musicianship II (2)
  Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B.
- MUS 142A Harmony I (3)
  Corequisite: MUS 141A.
- MUS 142B Harmony II (3)
  Prerequisites: MUS 141A & MUS 142A or satisfactory score in theory placement test. Corequisite: MUS 141B.
- MUS 341 Form and Analysis (3)
  Prerequisites: MUS 142B or consent of instructor.

Take one course from the following:
- MUS 272A, 342

Music History/Literature (12 units)
Take all of the following:
- MUS 190* Listener’s Approach to Music (3)
  Prerequisites/Corequisites: ENGL 100 or GE Composition (Area A1) or another GE Foundation course.
- MUS 490* Introduction to Music Cultures (3)
  Prerequisite: GE Foundation requirements.

*double-counts as GE

Take one course from the following:
- MUS 160, MUS 360, MUS 374

Performance Ensembles (4 units)
Take 4 units of the following:
- MUS 100, MUS 200 and/or MUS 300, MUS 400 (ensemble must meet Conservatory approval)

Applied Music (4 units)
Take 4 units of the following:
- MUS 129/329
- Complete Upper-Division Screening Exam (UDSE)

Piano Proficiency
Take the following:
- Successful completion of the piano proficiency exam (equivalent to MUS 220B)

Music History Electives (9 units)
Take 9 units of the following:
- MUS 160, MUS 360, MUS 363, MUS 364 (if not taken in Music History 12-unit core), MUS 374, MUS 393, MUS 467, MUS 468, MUS 471 (repeatable to 6 units)

Interdisciplinary Cultural Studies (12 units, 6 upper division)
Take 6 units from one major discipline area and an additional 6 units in one or more areas. These areas can be, but are not limited to:
- Anthropology; Africana Studies; Asian and Asian-American Studies; Comparative World Literature and Classics; Film Studies; Geography; History; International Studies; Journalism; Philosophy; Political Science; Religious Studies; Romance, German, Russian Languages; and Women’s, Gender, and Sexuality Studies

Final Exit Requirement (4 units)
- MUS 496 Research Methods (3)
  (taken penultimate semester of graduation)
  Prerequisite: Consent of instructor.

One of the following:
- MUS 423C Music History Senior Thesis (1)
  Prerequisites: MUS 360, MUS 374, MUS 496 and consent of Director of Music History.
- MUS 423D BA Senior Project (1)
  Prerequisites: MUS 496 and senior standing and consent of instructor.

Bachelor of Music
The Bachelor of Music degree is a high-unit professional degree and requires 132 units for graduation. Music units include the core requirements and one option. Students interested in the BM program must successfully complete an audition for entrance to the program. This should be accomplished prior to entrance to the University. Students wishing to consider the BM program after they have enrolled at CSULB may not apply after they have completed more than a maximum of 96 units.

Music Education: Instrumental Music and Choral-Vocal Music Options

Core Requirements

Music History and Literature:
Take the following:
- MUS 190* Listener's Approach to Music (3)
  Prerequisites/Corequisites: ENGL 100 or GE Composition (Area A1) or another GE Foundation course.
- MUS 490* Introduction to Music Cultures (3)
  Prerequisite: GE Foundation requirements.

*Section by advisement, double-counts as GE - C.1

Take two of the following courses:
- MUS 160 History of Music: Baroque/Classical (3)
  Prerequisite: MUS 190.
- MUS 360 History of Music: Medieval/Renaissance (3)
  Prerequisites: MUS 190.
- MUS 374 History of Music: 19th/20th Century (3)
  Prerequisites: MUS 190, MUS 160 or consent of instructor.

Music Theory:
Take all of the following:
- MUS 141A Musicianship I (2)
  Corequisite: MUS 142A.
- MUS 141B Musicianship II (2)
  Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B.
- MUS 142A Harmony I (3)
  Corequisite: MUS 141A.
- MUS 142B Harmony II (3)
  Prerequisites: MUS 141A and MUS 142A or satisfactory score in theory placement test. Corequisite: MUS 141B.
- MUS 240 Advanced Musicianship (2)
  Prerequisite: MUS 141B
- MUS 341 Form and Analysis (3)
Prerequisites: MUS 142B or consent of instructor.

MUS 342 Materials of Modern Music (3)
Prerequisite: MUS 341.

Major Performance Organization:
Take a minimum of 6 Units from the following:
MUS 100 (4), MUS 300 (2)

Recital:
MUS 323 Junior Recital (1)
Prerequisites: MUS 341, MUS 342. Corequisite: MUS 429.

Keyboard Proficiency:
Successful completion of conservatory's piano proficiency examination (equivalent to MUS 220B)

Option in Instrumental Music (132 units)

Requirements
Take the following course for 4 units:
MUS 129 Individual Instruction for Music Majors (1)
Prerequisite: None

Take the following course for 4 units:
MUS 429 Individual Instruction for Music Majors (2)
Prerequisite: Successful completion of Upper-Division Screening Exam on applied instrument

Take all of the following:
MUS 122A Class Voice (1)
Prerequisite: None
MUS 326 Conducting (2)
Prerequisites: Consent of instructor.
MUS 382B Beginning Instrumental Techniques and Literature (3)
Prerequisite: Three instrumental methods courses from the MUS 125 series.
MUS 425 Advanced Instrumental Conducting (2)
Prerequisite: MUS 326 or consent of instructor.
MUS 440B Beginning Jazz Methods (2)
Prerequisites: Music Education major or consent of instructor. Student must perform on one of the standard Jazz instruments.
MUS 480 Marching Band Techniques (2)
Prerequisite: None
MUS 482B Secondary Literature/Rehearsal Techniques - Instrumental (3)
Prerequisite: MUS 326, 382B and at least 3 MUS 125 Methods courses.
MUS 484 Arranging (2)
Prerequisites: MUS 142B
MUS 485 Music for the Elementary Child (3)
Prerequisite: None
MUS 487A Emerging Methods in Music Education (3)
Prerequisites: Music Education major and consent of instructor
MUS 487B Emerging Methods Chamber Performance (2)
Prerequisites: MUS 487A or consent of instructor.

Take all of the following courses:
MUS 125A, MUS 125B, MUS 125C, MUS 125D, MUS 125E, MUS 125F, MUS 125G, Instrumental Methods (1)
Music Education Proficiency Exam
Taken Spring semester of the Senior year. Music Education students will demonstrate proficiency from selected MUS 125 methods, Instrumental/Choral

Ensemble methods, as well as dispositions and characteristics of an emerging Music Educator.

Single Subject Teaching Credential in Music
Completion of this option meets the subject matter competence requirement for the Single Subject Teaching Credential in Music. In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Music teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete up to 12 units in the credential program as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the conservatory's Music Education Advisor early to plan their program. CSULB students entering the Credential Program must apply to the graduate program during the last semester before graduation.

The Subject Matter Preparation Program has been approved by the California Commission on Teacher Credentialing.

Option in Choral-Vocal Music (132 units)

Requirements
Take the following course for 4 units:
MUS 129 Individual Instruction for Music Majors (1)
Prerequisite: None

Take the following course for 4 units:
MUS 429 Individual Instruction for Music Majors (2)
Prerequisite: Successful completion of Upper-Division Screening Exam on applied instrument or voice.

Take all of the following:
MUS 273A Diction for Singers (2)
Prerequisite: Consent of Instructor.
MUS 326 Conducting (2)
Prerequisites: Consent of instructor.
MUS 382A Elementary Choral Techniques and Literature (3)
Prerequisite: EDSS 300N, MUS 326, or consent of instructor.
MUS 422 Advanced Choral Conducting and Literature (2)
Prerequisites: MUS 326
MUS 426 Vocal Development (2)
Prerequisite: Consent of instructor.
MUS 440A Specialized Vocal Ensembles (2)
Prerequisites: MUS 326, MUS 426, and Music Education major, or consent of instructor.
MUS 482A Secondary Literature/Rehearsal Techniques - Choral-Vocal (3)
Prerequisite: MUS 382A or consent of instructor.
MUS 484 Arranging (2)
Prerequisites: MUS 142B
MUS 485 Music for the Elementary Child (3)
Prerequisite: None

MUS 487A Emerging Methods in Music Education (3)
Prerequisites: Music Education major and consent of instructor

MUS 487B Emerging Methods Chamber Performance (2)
Prerequisites: MUS 487A or consent of instructor.

Take 5 of the following courses:
MUS 125A, MUS 125B, MUS 125C, MUS 125D, MUS 125E, MUS 125F Instrumental Methods (1)

Music Education Proficiency Exam
Taken Spring semester of the Senior year. Music Education students will demonstrate proficiency from selected MUS 125 methods, Instrumental/Choral Ensemble methods, as well as dispositions and characteristics of an emerging Music Educator.

Single Subject Teaching Credential in Music
Completion of this option meets the subject matter competence requirement for the Single Subject Teaching Credential in Music. In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Music teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete up to 12 units in the credential program as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures. Prospective students should consult the conservatory’s Music Education Advisor early to plan their program. CSULB students entering the Credential Program must apply to the graduate program during the last semester before graduation.

The Subject Matter Preparation Program has been approved by the California Commission on Teacher Credentialing.

Options in Performance, Composition and History and Literature

Core Requirements

Music History and Literature:
Take all the following courses:
MUS 160 History of Music: Baroque/Classical (3)
Prerequisite: MUS 190.

MUS 190* Listener’s Approach to Music (3)
Prerequisites/Corequisites: ENGL 100 or GE Composition (Area A1) or another GE Foundation course.

MUS 360 History of Music: Medieval/Renaissance (3)
Prerequisites: MUS 190.

MUS 374 History of Music: 19th/20th Century (3)
Prerequisites: MUS 190, MUS 160 or consent of instructor.

MUS 490* Introduction to Music Cultures (3)
Prerequisite: GE Foundation requirements.

* Section by advisement, double-counts as GE – C.1

Music Theory:
Take all the following courses:
MUS 141A Musicianship I (2)
Corequisite: MUS 142A.

MUS 141B Musicianship II (2)
Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B.

MUS 142A Harmony I (3)
Corequisite: MUS 141A.

MUS 142B Harmony II (3)
Prerequisites: MUS 141A & MUS 142A or satisfactory score in theory placement test. Corequisite: MUS 141B.

MUS 240 Advanced Musicianship (2)
Prerequisites: MUS 141B and MUS 142B or satisfactory score on theory placement test.

MUS 341 Form and Analysis (3)
Prerequisites: MUS 142B or consent of instructor.

MUS 342 Materials of Modern Music (3)
Prerequisite: MUS 341.

Major Performance Organization:
MUS 100/300 Major Performance Organization (MPO), one topic each semester in residence: Piano majors take a maximum of 4 semesters of MPO; String students take Symphony Orchestra; Winds and Percussion students take Wind Symphony, Symphonic Band or Concert Band; Voice students take Chamber Choir, University Choir or 49er Chorus; Opera majors take Chamber Choir, University Choir or 49er Chorus for six semesters, and then substitute Opera (MUS 330) for two semesters; Jazz Studies majors take at least 4 units of Concert Jazz Orchestra, Studio Jazz Band, Vocal Jazz Ensemble I or Vocal Jazz Ensemble II; Composition majors who have passed the UDSE substitute New Music Ensemble (MUS 400B) after 4 semesters of MPO.

Keyboard Proficiency:
Successful completion of conservatory’s piano proficiency examination (equivalent to MUS 220B)
(piano majors excepted)

Option in Performance (132 units)

Requirements
Core:
MUS 129, 229/429 minimum of 15 units and maximum of 20 units with an achievement of senior level on major performance medium. Junior Recital (MUS 323) and Senior Recital (MUS 423A) are required of all students.

Piano:
Take 5 units of the following courses:
MUS 200, MUS 400
Take all of the following courses:
MUS 277 Keyboard Skills (2)
Prerequisite: None

MUS 427 Piano Pedagogy I (3)
Prerequisite: None

MUS 477 Piano Accompanying (2) (must take 2 times)
Prerequisite: MUS 277 or consent of instructor.

MUS 492A Studies in Keyboard Music (2)
Prerequisite: MUS 360 or consent of instructor.

MUS 492B Studies in Keyboard Music (2)
Prerequisite: MUS 360 or consent of instructor.
Electives:
Take 4 units from the following courses:

**String Instruments:**
Take 4 units of the following courses:
- MUS 200, MUS 400
Take the following course:
- MUS 326 Conducting (2)
  Prerequisites: Consent of instructor.
Take 6 units from the following courses:
- MUS 428, MUS 467, MUS 471, MUS 478 and MUS 493.

**Wind Instruments:**
Take 4 units of the following courses:
(2 must be either woodwind or brass chamber music):
- MUS 200/400
Take the following course:
- MUS 326 Conducting (2)
  Prerequisites: Consent of instructor.
Take 4 units of the following courses:
- MUS 224 Performance and Styles (1), MUS 200T Saxophone Ensemble (1), MUS 200J Jazz Combos (1)
- MUS 424 Performance and Styles (1), MUS 400T Saxophone Ensemble (1), MUS 400J Jazz Combos (1)
Take 6 units from the following courses:
- MUS 428, MUS 467, MUS 471, MUS 478 and MUS 493.

**Percussion:**
Take the following courses:
- MUS 200M/400M (6)
- MUS 200N/400N (1)
- MUS 200X/400X (1)
Take the following course:
- MUS 326 Conducting (2)
  Prerequisites: Consent of instructor.
Take 6 units from the following courses:
- MUS 428, MUS 467, MUS 471, MUS 478 and MUS 493.

**Voice:**
Take all of the following courses:
- MUS 273A Diction for Singers (2)
  Prerequisite: Consent of Instructor.
- MUS 273B French Diction for Singers (1)
  Prerequisite: MUS 273A.
- MUS 273C German Diction for Singers (1)
  Prerequisites: MUS 273A.
- MUS 426 Vocal Development (2)
  Prerequisite: Consent of instructor.
Take one of the following courses:
- THEA 262, THEA 114A
Take two units from one the following courses (required as part of eight-unit activity requirement):
- MUS 330, MUS 331
Choose two courses from the following:
- Theatre Elective (3)
- Dance Elective (DANC 111A or DANC 113A) (2)
- MUS 469 Music of the Theatre (3)
Completion of Bob Cole Conservatory of Music Foreign Language Proficiency Exam (may be waived upon successful completion of 101B level course in French, German, or Italian).

**Jazz Studies:**
Take 4 units of the following courses:
- MUS 100/300L, M, N, O or MUS 200/400H
Take all of the following courses:
- MUS 272A Jazz Theory I (2)
  Prerequisite: MUS 142B or consent of instructor.
- MUS 272B Jazz Theory II (2)
  Prerequisite: MUS 272A or consent of instructor.
- MUS 371A Improvisation Techniques I (2)
  Prerequisites: 272B or consent of instructor.
- MUS 371B Improvisation Techniques II (2)
  Prerequisites: MUS 371A or consent of instructor.
- MUS 393 Jazz, An American Music (3)
  Prerequisite: GE Foundation requirement and upper division standing.
- MUS 416 Jazz Pedagogy (2)
- MUS 474A Jazz Arranging I (2)
  Prerequisite: Consent of instructor.
Take 3 units by advisement from the following:
- MUS 370, MUS 411A, MUS 414, MUS 417, MUS 442, MUS 455, MUS 456, MUS 457, MUS 474B or MUS 497D
Completion of Bob Cole Conservatory Jazz Piano Proficiency Examination (equivalent to MUS 221B)
Option in Composition (132 units)

Requirements
Take the following course:
MUS 129 to be taken each semester in residence until successful completion of the Upper-Division Screening Examination in applied music (a minimum of 4 units is required).

Take all of the following courses:
MUS 244A Composition Workshop I (2)
Prerequisite: MUS 142A and consent of instructor.
MUS 244B Composition Workshop II (2)
Prerequisites: MUS 244A and consent of instructor.
MUS 326 Conducting (2)
Prerequisites: Consent of instructor.
MUS329X Individual Instruction for Music Majors (2)
Prerequisite: Successful completion of Upper-Division Screening Exam on applied instrument or voice.
MUS 344 Composition (2)
Prerequisites: MUS 244A-B; Corequisite MUS 329X.
MUS 423B Senior Composition Recital (1)
Prerequisites: Senior standing and consent of instructor.
MUS 444 Advanced Composition (2)
Prerequisites: MUS 344; Corequisite: MUS 329X.

Take 14 units from the following courses (at least 3 units must be selected from MUS 370, MUS 447, MUS 455, MUS 456, MUS 457 or MUS 497E):

Option in History and Literature (132 units)

Requirements
Take the following course:
MUS 129 taken each semester in residence until successful completion of Upper-Division Screening Examination in applied music (a minimum of 4 units is required).

Take all of the following courses:
MUS 423C Music History Senior Thesis (1)
Prerequisites: MUS 360, MUS 374, MUS 496 and consent of Director of Music History.
MUS 496 Research Methods (3)
Prerequisite: Consent of instructor.

Take 6 units from the following courses:
MUS 363, MUS 364, MUS 393, MUS 468

Take 15 units from the following courses:
MUS 428, MUS 441, MUS 467, MUS 469, MUS 471 (repeatable to 6 units), MUS 478, MUS 492A, MUS 492B, MUS 493 (repeatable to 6 units), MUS 400R, MUS 400S (repeatable to 3 units).

Completion of the Bob Cole Conservatory of Music Foreign Language Examination in French, German or Italian (may be waived by completion of 101B level course in French, German or Italian).

Take 3 units of upper-division coursework outside music, under advisement, to be related to Senior Thesis topic or include foreign language literature classes.

Minor in Music

Requirements
A minimum of 18 units, 6 must be upper division (300- and 400-level courses), taken from each of the following areas:
Music Theory – 2 units:
MUS 140 or other theory course by advisement
Music History – 3 units minimum selected from:
MUS 190, MUS 290, MUS 490;
Applied Music – 2 units minimum selected from:
MUS 120A/B, MUS 122A/B; MUS 125F
Performance Ensembles – 4 units minimum selected from:
MUS 100/300, MUS 200/400;
Music electives by advisement - 7 units.

Graduate Programs

Master of Arts in Music

The Master of Arts degree in Music provides academic concentrations in Musicology, Music Theory, and Music Education.

Prerequisites
1. A Bachelor of Arts degree with a major in music, a Bachelor of Music degree, or a bachelor’s degree with a minimum of 24 units of upper division courses in music comparable to those required of a major in music at this University;
2. The student must request all institutions of higher learning attended to send official copies of transcripts directly to the Office of Admissions and Records and another set to the Conservatory of Music Graduate Advisor. Transcripts presented to the Admissions Office by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to the Master of Arts in music program;
3. All applicants are required to complete the Bob Cole Conservatory Graduate Placement Examination before they register for courses applicable to the Master of Arts degree. (Under special circumstances, a student may take the examination during the first semester in which he or she is registered in courses applicable to the degree.) Applicants for all options of the M.A. degree must present samples of their scholarly writings in music for review by the Graduate faculty. Applicants for the musicology concentration must show evidence of reading and translation ability in one foreign language (French or German);
4. A GPA of 3.00 or better in upper division Music courses. Students who do not meet the 3.00 GPA requirement or specified balance within the required 24 units of upper division music but who possess outstanding or unusual qualifications that promise a significant contribution to the Master of Arts program may petition for a special review
3. Additional courses for Musicology concentration:

Take the following courses:
- MUS 696 Research Methods (3)
  (should be taken the first time it is offered during the student's residency)
  Prerequisites: None
- MUS 541 Seminar in Musical Analysis (3)
  Prerequisites: None
- MUS 698 Thesis or Project
  (4-6 units, dependent upon concentration)
  Prerequisites: Advancement to Candidacy and consent of Director of Music History

Take one course from the following courses:
- MUS 561, MUS 562, MUS 563, MUS 564, MUS 565.

3. Additional courses for Musicology concentration:

Take 3 units from the following courses:
- MUS 561, MUS 562, MUS 563, MUS 564, MUS 565
  (not taken in core)

Take 6 units selected from the following courses:
- MUS 561, MUS 562, MUS 563, MUS 564, MUS 565, MUS 569, MUS 571, MUS 576, MUS 578, MUS 592, MUS 593
  (not taken in core)

Take 6 units of music electives (students in this concentration are strongly encouraged to elect theory as well as performance classes, especially Collegium Musicum and New Music Ensemble).

Take thesis for 6 units in this concentration.

4. Additional courses for Music Education Concentration:

Take the following course:
- MUS 581 Foundations of Music Education (3)
  Prerequisites: None
- MUS 587 Research and Assessment in Music Education (3)
  Prerequisites: None
- MUS 589A Emerging Methods in Music Education (3)
  Prerequisites: Graduate student in music or consent of instructor.
- MUS 589B Emerging Methods Chamber Performance (2)
  Prerequisites: MUS 589A

Take 4 units of electives (students in this concentration are encouraged to elect performance and conducting classes).

Take thesis for 4-6 units in this concentration, dependent upon project.

Master of Music Degree

The Master of Music degree program provides professional concentrations in Composition, Conducting-Instrumental, Conducting-Choral, Jazz Studies, Opera Performance and Instrumental/Vocal Performance.

Prerequisites

1. A Bachelor of Music degree, or a Bachelor of Arts degree with a major in Music or a bachelor's degree, from an accredited institution, with a minimum of 24 upper division units of music comparable to those required at this University;

2. The student must request all institutions of higher learning attended to send official copies of transcripts directly to the Office of Admissions and Records and another set to the Conservatory of Music Graduate Advisor. Transcripts presented to the Admissions Office by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to the Master of Music in music program;

3. All applicants are required to complete the Bob Cole Conservatory Graduate Placement Examination before they register for courses applicable to the Master of Music degree. (Under special circumstances, a student may take the examination during the first semester in which he or she is registered in courses applicable to the degree);

4. Criteria according to concentration:
   - A. Composition: submission and approval of a portfolio of representative original scores and evidence of baccalaureate-level competency as required in the Bachelor of Music Composition Option;
   - B. Conducting: successful completion of a conducting examination and approval by the conducting faculty;
   - C. Performance/Jazz Studies: Performance-Opera; Jazz Studies; and Instrumental/Vocal: an audition both at a performance level and with a repertory on an instrument or in voice acceptable to the faculty of the specific performance medium.

5. A GPA of 3.00 or better in upper division Music courses. Students who do not meet the 3.00 GPA requirement or specified balance within the required 24 units of upper division music but who possess outstanding or unusual qualifications that promise a significant contribution to the Master of Music program may petition for a special review from the Conservatory Graduate Advisory Committee.

Advancement to Candidacy

1. Satisfy all the general University requirements, including fulfillment of the Graduation Writing Assessment Requirement (GWAR);

2. Remove all undergraduate deficiencies, which were determined by the Bob Cole Conservatory Graduate Placement Examination and/or the Dean of the College of the Arts;

3. Pass the Bob Cole Conservatory Qualifying Examinations;

4. Submit an approved project or thesis proposal, and a graduate degree program approved by the student's
Thesis Committee, the Graduate Advisor, Conservatory Director, and the Dean of the College of the Arts (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.);

5. GPA of 3.0 or higher.

Requirements

General requirements for all majors: Completion of a minimum of 30 units of approved upper division and graduate courses with at least 24 units in the major. MUS 427, 428, 441, 495 and 499 are the only undergraduate classes allowed to count on a graduate program. All others must be taken at the 500- or 600-level. (The program may not include more than six units of transfer graduate credit).

Master of Music Concentrations

Composition:

Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student’s residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.
An oral defense of the thesis, recital, or project
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take the following courses:
MUS 544 Graduate Composition I (2)
Corequisite: MUS 529X.
MUS 545 Graduate Composition II (2)
Prerequisite: MUS 544. Corequisite: MUS 529X.
Take 2 units of the following:
MUS 529X or MUS 629X
(taken concurrently with MUS 544 and MUS 545)
Take 3 units selected from the following courses:
MUS 555, MUS 556, MUS 557, MUS 597E
Take 6 units selected under advisement from:
MUS 510, MUS 511A, MUS 511B, MUS 512, MUS 516, MUS 520, MUS 522, MUS 525, MUS 529X, MUS 543, MUS 545, MUS 555, MUS 556, MUS 557, and MUS 597D-E-G
Take 2 units of electives selected under advisement.

Composition with Interactive Technology:

Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student’s residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 MUS 565 (3)
An oral defense of the thesis, recital, or project:
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take 2 units of the following:
MUS 529X Individual Instruction for Music Majors: Composition (1)
Prerequisites: None
Take the following courses:
MUS 558 Literature and Aesthetics of Interactive Media (3)
Prerequisites: None
MUS 600W Chamber Music: Laptop Ensemble (1)
taken for 3 semesters
Prerequisite: Consent of instructor.
Take 6 units selected from the following courses:
MUS 555, MUS 556, MUS 557, MUS 597E
Take additional 3 units of electives by advisement.

Conducting – Instrumental:

Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student’s residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.
An oral defense of the thesis, recital, or project
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take 2 units from the following:
MUS 500, MUS 600
Take 8 units from the following:
MUS 629W
Take two courses by advisement from the following:
MUS 520, MUS 525, MUS 680
Take 2 units of electives selected by advisement.

Conducting – Choral:

Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student’s residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.
An oral defense of the thesis, recital, or project
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take 4 units from the following:
MUS 500, MUS 600
Take 8 units from the following:
MUS 629W
Take all the following:
MUS 575 Studies in Choral Music (3)
Prerequisite: Consent of instructor.
MUS 529 Q Selected Topics - Individual Instruction for Music Majors. (2)

Jazz Studies:
Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student's residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None

An oral defense of the thesis, recital, or project
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History

Take all of the following:
MUS 500 L,M,N,O (2)
Prerequisite: Consent of instructor.
MUS 510 Improvisation Styles and Literature (3)
Prerequisite: Graduate student in Music or consent of instructor.
MUS 512 Advanced Techniques in Jazz Arranging (3)
Prerequisite: Graduate student in Music or consent of instructor.
MUS 513 History and Analysis of Jazz Styles (3)
Prerequisite: Graduate student in Music or consent of instructor.
MUS 516 Pedagogy of Jazz (2)
Take 7 units selected by advisement from the following:
MUS 511A, MUS 514, MUS 517, MUS 529Y, MUS 629, MUS 543, MUS 555, MUS 556, MUS 557, MUS 597A/D

Opera Performance:
Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student's residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.

An oral defense of the thesis, recital, or project:
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take 4 units from the following:
MUS 500 A, B, C, J
Prerequisite: Consent of instructor
Take 2 units from the following:
MUS 600 Selected Topics - Chamber Music (1)
Prerequisite: Consent of graduate advisor.
Take 8 units from the following:
MUS 529 or MUS 629
(section by advisement)
Take 3 units of electives by advisement

Piano Performance:
Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student's residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None
Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.

An oral defense of the thesis, recital, or project:
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Take 8 units from the following:
MUS 529 or MUS 629
(section by advisement)
Take 4 units from the following:
MUS 592A/B, one or both semesters may be waived by examination or by "A" grade in MUS 492A/B. If waived, units must be substituted with approved academic course(s)
Take the following courses:
MUS 577 Piano Accompanying (2)
Prerequisite: Graduate student in Music or consent of instructor.
MUS 600G Chamber Music: Piano Ensemble (1)
Prerequisite: Consent of instructor.
Select 2 more electives units from:
MUS 600 Chamber Music (1)
(recommended - MUS 600B, G, P, S, and/or U) by advisement.
Prerequisite: Consent of instructor.

Vocal Performance:
Take the following courses:
MUS 696 Research Methods (3)
(should be taken the first time it is offered during the student's residency)
Prerequisites: None
MUS 541 Seminar in Musical Analysis (3)
Prerequisites: None

Take one course from the following:
MUS 561, MUS 562, MUS 563, MUS 564 or MUS 565.
An oral defense of the thesis, recital, or project:
MUS 698 Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History

Take 6 units from the following:
MUS 500, MUS 530
(4 must be approved Major Performance Organization*)
Take 8 units from the following:
MUS 529 or MUS 629
(section by advisement)
Take one course by advisement from the following:
MUS 526, MUS 534A, MUS 534B, MUS 536, MUS 573.

The Vocal Performance/Opera Placement Examination is given in the week prior to the beginning of classes. It is required of all entering students, including those holding bachelor's degrees from CSULB. Prospective graduate students in voice and opera must call the Music Conservatory Office (562) 985-4781 to register for the Vocal Performance/Opera Placement Examination Placement Examination in addition to the Music Conservatory Placement Examination required of all entering graduate students.

All applicants are required to complete the Conservatories' Diction and Repertoire Diagnostic Exam** before registering in courses applicable to the Master of Music degree.

*Approved Major Performance Organizations (MUS 500, MUS 530) by area:
**Winds and Brass: Wind Symphony, Symphonic Band, Symphony Orchestra, Concert Jazz Orchestra
**Percussion: Wind Symphony, Symphonic Band, Concert Band, Symphony Orchestra
**Strings: Symphony Orchestra
**Voice: Chamber Choir, University Choir, 49er Chorus, Opera
**Opera: Chamber Choir, University Choir, 49er Chorus, Opera
**Jazz Studies: Concert Jazz Orchestra, Studio Jazz Band, Vocal Jazz Ensemble I, Vocal Jazz Ensemble II

**Students in the Vocal Performance and Opera concentrations of the Master of Music degree are expected to show evidence of diction studies in various languages and French and German song repertoire for entrance. A diction examination will determine strengths and weaknesses in undergraduate-level knowledge in these areas. The exam results are used in the advising process to determine remedial work and for guidance in choice of electives. Students showing deficiencies may be required to take specific relevant elective courses.

Teaching Credentials
Students seeking a degree in Music Education refer to the Instrumental Music and Choral-Vocal Music options under B.M. degree. All students entering the credential program after August 31, 2003 will be following the SB2042 credential program and should consult the Single Subject Credential Program requirements in this catalog. For further information consult with the Conservatory credential advisor.

Music Performance
Opportunities to participate in various instrumental and vocal ensembles are available to all students regardless of major. Before enrolling in a performing group, students should apply to the director of the organization in which they wish to participate. Music performance courses may be repeated; up to 8 units of credit in MUS 100 or MUS 300 may be counted toward a bachelor's degree. Simultaneous enrollment in more than one organization is permitted.

Single Subject Teaching Credential in Music
For information, refer to the undergraduate section in this department.

Music Courses (MUS)

LOWER DIVISION

100. Selected Topics - Major Performance Organization (1)
Prerequisite: Consent of instructor. Audition may be required.
May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes.
(3-5 hrs reh.)
A. Concert Band
B. Symphonic Band
C. Wind Symphony
E. Forty-Niner Chorus
F. University Choir
G. Chamber Choir
I. Orchestra at the Beach
J. Symphony Orchestra
L. Studio Jazz Band
M. Vocal Jazz Ensemble I
N. Vocal Jazz Ensemble II
O. Concert Jazz Orchestra
P. Vocal Jazz Ensemble III

120A-B. Class Piano (1,1)
Technique, tone production, rhythm, sight-reading, interpretation and keyboard facility.
(2 hrs lab)

122A-B. Class Voice (1-1)
Fundamental techniques of singing, tone production, voice placement, breathing, diction, repertoire, and song interpretation.
(2 hrs lab)
125. Selected Topics - Instrumental Methods (1)
Class instruction in applied music and technology. Limited to music majors and minors.
Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes. (2 hrs lab)
A. Single Reeds/Flute
B. Double Reeds
C. Brass
D. Percussion
E. Strings
F. Guitar
G. Instrument Repair
T. Music Technology

129. Selected Topics - Individual Instruction for Music Majors (1)
Open to music majors only. Private lessons in major performance medium. Application must be made to Director of the Bob Cole Conservatory of Music during semester prior to registration. Registration subject to conservatory's approval.
Letter grade only (A-F). May be repeated to a maximum of 4 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone

130. Opera (1)
Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre; solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
(3 hrs or more lab)

131. Music Theater (1)
Prerequisite: Consent of instructor.
Performance of musical theater works and operas. Additional areas include stage management, scheduling, costuming, and set construction.
May be repeated to a maximum of 4 units, only 2 of which may count toward degree. (2 hrs reh.)

140. Basic Music Theory (2)
Notation and reading of music. Written, aural and performance experience with scales, intervals, chords, and melodies. Provides essential background for more advanced courses in music theory.
Course fee may be required.

141A. musicianship I (2)
Corequisite: MUS 142A.
Study of basic skills in music reading, ear training, sight-singing, melodic and harmonic dictation. Computer assisted instruction is available.
Course fee may be required.

141B. musicianship II (2)
Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B.
Study of skills in music reading, ear training, sight-singing, and melodic and harmonic dictation through modulation and chromatic harmony. Computer assisted instruction is available.
Course fee may be required.

142A. Harmony I (3)
Corequisite: MUS 141A.
Beginning principles of part-writing, to include modal counterpoint, concepts of chord progression, chord prolongation, and analysis in diatonic and chromatic tonal music.

142B. Harmony II (3)
Prerequisites: MUS 141A & MUS 142A or satisfactory score in theory placement test. Corequisite: MUS 141B.
Principles of part-writing, to include modal counterpoint, concepts of chord progression, chord prolongation, and analysis in diatonic and chromatic tonal music.

160. History of Music: Baroque/Classic (3)
Prerequisite: MUS 190.
Chronological survey of music and musical styles from 1600 to 1750 with selected readings, recordings, and scores for in-depth study. Primarily for music majors and minors, but open to others who can read music.
Letter grade only (A-F).

180. Exploring Music (3)
Fundamentals of music, listening skills, and simple compositional techniques introduced and developed through basic performance skills on recorder and simple percussion instruments. K-6 language arts and social science content standards addressed pertaining to appropriate performance/listening activities.
Non-music majors only. Letter grade only (A-F).

190. Listener's Approach to Music (3)
Prerequisites/Corequisites: ENGL 100 or GE Composition (Area A1) or another GE Foundation course.
Non-technical course open to all students. Materials, forms and styles of music with extensive listening.
200. Selected Topics - Chamber Music (1)
Prerequisite: Consent of instructor.
May be repeated to a maximum of 12 units with different topics in the same semester. Topics announced in the Schedule of Classes. (2 hrs or more rehearsal)
A. Brass Ensemble
B. New Music Ensemble
C. String Ensemble
D. University String Quartet
E. University Wind Quintet
F. University Brass Quintet
G. Piano Ensemble
I. Men's Chorus
J. Jazz Combos
K. Performance
L. Brass Chamber Music
M. Percussion Ensemble
N. Steel Drum Orchestra
O. Woodwind Chamber Music
P. String Chamber Music
Q. Women's Chorus
R. Collegium-Vocal
S. Collegium-Instrumental
T. Saxophone Ensemble
U. Directed Accompanying
W. Laptop Ensemble
X. World Percussion Group
Y. World/Traditional Music Performance
Z. University Percussion Group

220A-B. Class Piano (1-1)
Continuation of 120A-B.
(2 hours laboratory.)

221A. Class Jazz Piano I (1)
Prerequisite: Successful completion of conservatory's keyboard proficiency exam or consent of instructor. Basic jazz keyboard skills including realization of jazz harmony and progressions with idiomatic chord voicings.
Basic jazz keyboard skills including realization of jazz harmony and progressions with idiomatic chord voicings.
Letter grade only (A-F). (2 hours lab)

221B. Class Jazz Piano II (1)
Prerequisite: MUS 221A or consent of instructor.
Advanced Keyboard realization of jazz harmony, performing idiomatic chord voicings and chord progressions performed with metronome and by memory.
Letter grade only (A-F). (2 hours lab)

224. Orchestral Literature: Performance and Styles (1)
Prerequisites: Consent of Instructor.
Performance of standard orchestral repertoire in instrumental sectional for Brass, Woodwinds, Percussion, or Strings.
Letter grade only (A-F). Repeatable to 8 units in different semesters. (2 hrs. rehearsal)

229. Selected Topics - Individual Instruction for the Music Major (2)
Open to performance majors only.
Private lessons in major performance medium. Application must be made to Director of the Bob Cole Conservatory of Music during semester prior to registration. Registration subject to conservatory's approval.
Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone

240. Advanced Musicianship (2)
Prerequisites: MUS 141B and MUS 142B or satisfactory score on theory placement test.
Study of advanced skills in ear training and sight singing.
Letter grade only (A-F). Course fee may be required.

244A. Composition Workshop I (2)
Prerequisite: MUS 142A and consent of instructor.
Survey of contemporary techniques in composition, music notation and contemporary literature. Short compositions in workshop setting for beginning composers.
Letter grade only (A-F).

244B. Composition Workshop II (2)
Prerequisites: MUS 244A and consent of instructor.
Survey of contemporary techniques in composition, music notation and contemporary literature. Short compositions in workshop setting for beginning composers.
Letter grade only (A-F).

272A. Diction for Singers (2)
Prerequisite: Consent of Instructor.
Focus on IPA, International Phonetic Alphabet, and its application in English and Italian. Repertoire focuses on correct pronunciation of art song, choral repertoire, and opera arias.
Letter grade only (A-F).
273B. French Diction for Singers (1)
Prerequisite: MUS 273A.
Focus on mastering application of International Phonetic Alphabet with phonetic transliteration skills to French language. Content focuses on correct pronunciation of art songs, choral repertoire, and opera arias.
Letter grade only (A-F).

273C. German Diction for Singers (1)
Prerequisites: MUS 273A.
Focus on mastering application of International Phonetic Alphabet with phonetic transliteration skills to German language. Content focuses on correct pronunciation of art song, choral repertoire, and opera aria.
Letter grade only (A-F).

277. Keyboard Skills (2)
Open to Music majors only.
Development of basic technical skills at the piano, including sight-reading, harmonization at the keyboard, chord and scale identification, score analysis, and beginning ensemble playing.
Not open for credit to students with credit in MUS 277A.

290. Popular Music in America (3)
Prerequisite: GE Foundation requirements.
Artistic and socio-economic influences on popular music in America from 1840 to present. Special consideration of impact on “pop” music of various cultures and ethnic groups within U.S.

295. Selected Topics (3)
Topics of current interest in various fields of music selected for special presentation and development.
Topics announced in the Schedule of Classes. (3 hours lecture)

UPPER DIVISION

300. Selected Topics - Major Performance Organization (1)
Prerequisite: Consent of instructor. Audition may be required.
May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes. (3-5 hrs reh.)
A. Concert Band
B. Symphonic Band
C. Wind Symphony
E. Forty-Niner Chorus
F. University Choir
G. Chamber Choir
I. Orchestra at the Beach
J. Symphony Orchestra
L. Studio Jazz Band
M. Vocal Jazz Ensemble I
N. Vocal Jazz Ensemble II
O. Concert Jazz Orchestra
P. Vocal Jazz Ensemble III

323. Junior Recital (1)
Prerequisite: MUS 341, MUS 342. Corequisite: MUS 429 or consent of instructor.
Recital of standard literature for solo instrument or voice in performance option of Bachelor of Music degree. Enrollment restricted to music majors passing conservatory's qualifying examination.

326. Conducting (2)
Prerequisites: Consent of instructor.
Introduction to principles and techniques of conducting and ensemble organization. Study and interpretation of instrumental and choral repertoire using class as laboratory ensemble.
Letter grade only (A-F). (1 hour lecture, 2 hours lab).

327. Choral Organization and Rehearsal Techniques (2)
Rehearsal techniques for the choral musician as well as study of audition techniques, choral tone development, diction, and score preparation as well as organization and management of choral programs.

329. Selected Topics - Individual Instruction for Music Majors (1)
Prerequisite: Successful completion of Upper-Division Screening Exam on applied instrument or voice.
Open to music majors only. Private lessons in major performance medium. Application must be made to Director of the Bob Cole Conservatory of Music during semester prior to registration.
Registration subject to conservatory's approval.
Letter grade only (A-F). May be repeated to a maximum of 10 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition

330. Opera (1)
Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre: solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
May be repeated to a maximum of 4 units, only 2 of which may count toward degree. (3 hrs or more reh.)

331. Music Theater (1)
Prerequisite: Consent of Instructor.
Performance of musical theater works and operas. Additional areas include stage management, scheduling, costuming, and set construction.
May be repeated to a maximum of 4 units, only 2 of which may count toward degree. (2 hrs reh.)
332. Opera Coaching (1)
Prerequisite: Consent of instructor. Corequisite: MUS 330.
One-on-one and small group coaching for opera majors.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (3-5 hrs reh.)

341. Musical Form and Analysis (3)
Prerequisites: MUS 142B or consent of instructor.
Intensive analysis of the historical development of form in tonal music from the early Baroque through the early 20th century.

342. Materials of Modern Music (3)
Prerequisite: MUS 341.
Continuation of intensive analysis of representative compositions of 20th Century with emphasis on writing in selected 20th Century styles.

344. Composition (2)
Prerequisites: MUS 244A-B; Corequisite MUS 329X.
Further exploration of contemporary techniques in composition, music aesthetics and contemporary literature.
Not open for credit to students with credit in MUS 344A. Letter grade only (A-F).

360. History of Music: Medieval/Renaissance (3)
Prerequisites: MUS 190.
Chronological survey of music and musical readings, recordings, and scores for in-depth study. Primarily for music majors and minors, but open to others who read music.
Letter grade only (A-F).

363. Music and the Visual Arts (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Explores interrelationships between visual arts and music in Western culture by comparing artistic methodologies employed by important visual artists to those employed by important composers of art music from 18th through 20th Centuries.

364. Music and the Temporal Arts (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of interrelationships of temporal arts (works of poets, writers, choreographers, and playwrights) and music of important composers of 18th through 20th Centuries.

370. Introduction to Music Technology (3)
Introduction to principles of sound recording, sound production, sound reinforcement, MIDI, and electronic music.

371A. Improvisation Techniques I (2)
Prerequisites: MUS 272B or consent of instructor.
Basic techniques in improvisation, beginning with simple question and answer phrases and progressing to extended solos. Detailed and applied knowledge of chord progressions.
Not open for credit to students with credit in MUS 271. (1 hr lec, 2 hrs lab)

371B. Improvisation Techniques II (2)
Prerequisites: MUS 371A or consent of instructor.
Continuation of MUS 371A.
(1 hr lec, 2 hrs lab)

374. History of Music: Nineteenth/Twentieth Centuries (3)
Prerequisites: MUS 190, MUS 160 or consent of instructor.
Chronological survey of music and musical styles from 1800 to present, with selected readings, recordings, and scores for in-depth study. Primarily for music majors and minors, but open to others who read music.
Letter grade only (A-F).

382A. Elementary Choral Techniques and Literature (3)
Prerequisite: EDSS 300N, MUS 326, or consent of instructor.
Techniques, methods and choral literature applicable to the Elementary Choral Ensemble.

382B. Beginning Instrumental Techniques and Literature (3)
Prerequisites: Three instrumental methods courses from the MUS 125 series.
Examination of organizational procedures for beginning/intermediate band and instructional techniques relating to Grade I-II music literature, investigation of contemporary music methodologies, and experience conducting ensemble class sessions.

386. Introduction to Music Education (3)
Prerequisite/Corequisite: Music major and consent of instructor.
Provides philosophical and pedagogical theory required for design and execution of appropriate music instructional programs at general classroom, middle school, and secondary levels. Includes MIDI, sequencing, and tutorial/managerial software in music classroom/rehearsal setting.
Not open for credit to students with credit in MUS 286. Letter grade only (A-F).

393. Jazz, An American Music (3)
Prerequisite: GE Foundation requirement and upper division standing.
Presents development of various musical styles, forms, improvisations, significant musical concepts and major figures in past, present and future of jazz, an American music.

400. Selected Topics - Chamber Music (1)
Prerequisite: Consent of instructor.
May be repeated to a maximum of 16 units with different topics in the same semester. Topics announced in the Schedule of Classes. (2 hrs rehearsal)
A. Brass Ensemble
B. New Music Ensemble
C. String Ensemble
D. University String Quartet
E. University Wind Quintet
F. University Brass Quintet
G. Piano Ensemble
I. Men's Chorus
J. Jazz Combos
K. Performance
L. Brass Chamber Music
M. Percussion Ensemble
N. Steel Drum Orchestra
O. Woodwind Chamber Music
P. String Chamber Music
Q. Women's Chorus
R. Collegium-Vocal
S. Collegium- instrumental
T. Saxophone Ensemble
U. Directed Accompanying
W. Laptop Ensemble
X. World Percussion Group
Y. World/Traditional Music Performance
Z. University Percussion Group
411A./511A. Film Scoring (3)
Prerequisites: MUS 272A, MUS 474, or consent of instructor.
Overview of the current trends and practices involved in creating and integrating music to moving picture. Students gain experience producing music cues for film, television and video games.
Letter grade only (A-F).

411B./511B. Advanced Film Scoring Project (3)
Prerequisites: MUS 411A or consent of instructor.
Students gain advanced experience creating music cues for film, television and video games. Real-world concepts and problems will be explored with an emphasis on preparing the student for a successful career in media composition.
Letter grade only (A-F).

414./514. Techniques for the Jazz Vocalist (2)
Prerequisites: Open to jazz majors or consent of instructor.
Basic stylistic requirements for solo singing in the jazz idiom. Includes analysis of established jazz singers and styles communication with the rhythm section, solo jazz repertoire, lyric interpretation and writing solo jazz arrangements.
Letter grade only (A-F).

416./516. Jazz Pedagogy (2)
Organization and management of school jazz programs, addressing rehearsal techniques, improvisation, repertoire, and conducting.
Letter grade only (A-F).

417./517. Business of Music (2)
Overview of business and artistic process of music industry. Includes popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Also includes recent changes in digital recording, broadcasting technology, copyright laws, and legal issues.
Letter grade only (A-F).

419./519. Choral Master Class (1)
Prerequisites: Consent of instructor.
Advanced conducting laboratory with emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices.
Letter grade only (A-F). May be repeated to a maximum of 4 units.

422./522. Advanced Choral Conducting and Literature (2)
Prerequisites: MUS 326 and MUS 327 or consent of instructor.
Choral technique, style, and interpretation; choral schools and composers since 16th century; contemporary secular and sacred choral compositions. Class used as laboratory group.
(1 hr lec. 2 hrs lab)

423A. Senior Recital (1)
Prerequisites: MUS 341, MUS 342. Corequisites: MUS 329 or MUS 429.
Individual recital of standard literature for solo instrument or voice. Enrollment restricted to Music majors passing conservatory's qualifying examination.
Letter grade only (A-F).

423B. Senior Composition Recital (1)
Prerequisites: Senior standing and consent of instructor.
Individual recital of original music written during composition studies while in program. Enrollment restricted to Bachelor of Music composition majors passing conservatory's qualifying examination.
Letter grade only (A-F).

423C. Music History Senior Thesis (1)
Prerequisites: MUS 360, MUS 374, MUS 496 and consent of Director of Music History.
In-depth research paper representing systematic study of significant problem, style, or repertory. Finished product must show thorough command of relevant literature, critical thinking and writing, and original approach. Proposal (outline, abstract, and bibliography) must be submitted for topic approval.
Letter grade only (A-F).

423D. BA Senior Project (1)
Prerequisites: MUS 496 and Senior standing and consent of instructor.
Final research project culminating in a comprehensive senior paper/project that sets music within a context of historical, cultural, theoretical, or interdisciplinary studies, diversity issues, and contemporary thought. The project draws on an outside discipline from the student's coursework in Interdisciplinary and Cultural Studies.
Letter grade only (A-F).

424. Orchestral Literature: Performance and Styles (1)
Prerequisites: Consent of Instructor.
Performance of standard orchestral repertoire in instrumental sectional for Brass, Woodwinds, Percussion or Strings.
Letter grade only (A-F). Repeatable to 8 units in different semesters.
(2 hrs. rehearsal)

425./525. Advanced Instrumental Conducting (2)
Prerequisite: MUS 326 or consent of instructor.
Principles and techniques of instrumental conducting and organization. Study and interpretation of instrumental literature using class laboratory.
(1 hr lec. 2 hrs lab)

426./526. Vocal Development (2)
Prerequisite: Consent of instructor.
Theory and techniques of teaching voice.

427. Piano Pedagogy (3)
Study of philosophies, psychology, and piano teaching methods for children, as well as intermediate and advanced level students.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

428. Seminar in Musical Styles (3)
Prerequisites: MUS 160, MUS 341, MUS 360, MUS 374.
Study development of musical styles, forms, genres, and significant musical concepts and problems. For Music majors only.

429. Selected Topics - Individual Instruction for Music Majors (2)
Prerequisite: Successful completion of Upper-Division Screening Exam on applied instrument or voice.
Private lessons in major performance medium. Application must be made to the Director of the Bob Cole Conservatory of Music during semester prior to registration. Registration is subject to conservatory's approval.
Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics in the same semester. Topics announced in the Schedule of Classes.

A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
434A./534A. German Song Repertoire (2)
Prerequisites: MUS 273A, MUS 273C.
Preparation of German song literature for performance, with coaching in language, musical styles, and vocal and accompanying techniques.
Letter grade only (A-F).

434B./534B. French Song Repertoire (2)
Prerequisites: MUS 273A, MUS 273B.
Preparation of French song literature for performance, with coaching in language, musical styles, and vocal and accompanying techniques.
Letter grade only (A-F).

436./536. Opera Repertoire (2)
Prerequisites: MUS 273B, MUS 273C or consent of instructor. Two years of voice study, completion of Bob Cole Conservatory of Music Foreign Language Proficiency Exam (may be waived upon successful completion of 101B level course in French, German, or Italian).
Preparation of varied portfolio of voice-appropriate selections from standard operatic repertoire in English, French, German and Italian. Include translation, lyric diction, ornamentation, tools for role study, rehearsal and audition techniques.
Letter grade only (A-F).

440A. Specialized Choral Ensemble Techniques (2)
Prerequisites: MUS 326, MUS 426, and Music Education major, or consent of instructor.
Course provides music education students with the techniques, methods, and historical development to lead a vocal jazz choir, a show choir and a musical theater production in the K-12 setting.
Letter grade only (A-F).

440B. Beginning Jazz Methods (2)
Prerequisites: Music Education major, or consent of instructor. Student must perform on one of the standard Jazz Instruments.
Examination of organizational and instructional techniques relating to beginning jazz ensemble performance, as well as performance on secondary instruments and conducting ensemble class sessions.
Letter grade only (A-F).

441. Studies in Musical Analysis (3)
Prerequisites: MUS 341, MUS 342.
Intensive individual and class analysis of representative compositions of various periods and styles.

442. Orchestration (3)
Range, characteristics, and transpositions of all standard orchestral instruments by writing and/or transcribing music. Preparation and proofreading of scores and parts. Readings of student assignments.

443./543. Advanced Orchestration (3)
Prerequisite: MUS 442.
Techniques of arranging, transcribing, and composing for standard chamber ensembles, chorus and orchestra. Readings of student orchestrations will be included whenever possible.

444. Advanced Composition (2)
Prerequisites: MUS 344, Corequisite: MUS 329X.
Advanced studies in music composition, music aesthetics, and listening methodologies.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters.

447/547. Counterpoint (2)
Prerequisites: MUS 341 Form & Analysis or permission of the instructor.
Serves as a continuation of the contrapuntal topics covered in Harmony I, Harmony II, and Form & Analysis. Covers advanced analysis of contrapuntal literature, and various student composition projects such as accompanied canon and fugue.
Letter grade only (A-F).

455./555. Electronic Music (3)
An introduction to the history and practice of electronic music, with an emphasis on listening and analysis of classical and contemporary works. The history, ethics and practice of sampling and remixing are also explored.
Letter grade only (A-F).

456./556. Sound Design (3)
Computer created projects that combine visual media (including web-based), and electronic music. Analysis of interdisciplinary and mixed media works, collaborative work in electronic arts and readings in critical theory and multimedia.
Letter grade only (A-F).

457./557. Composition with Digital Media (3)
Explore artists/composers’ use of interactive media from the intermediality and limited interactivity of Wagner’s and Scriabin’s works, to the latest software-driven and web-based constructions, to gain a better understanding of the philosophical and musical context for the students’ works.

468. Music and Film (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of interrelationships of dramatic, visual, and musical arts in film, with special emphasis on role of music.

469./569. Music of the Theater (3)
Prerequisites: MUS 374.
History and development of music for stage from 1600 to present, its conventions and styles. Analysis of representative masterworks.
May be repeated to a maximum of 6 units in different semesters.

471./571. Studies in Ethnomusicology (3)
Prerequisites: MUS 374 or consent of instructor.
Emphasis on theory and methodology of ethnomusicological study. Investigation of music of particular non-western or popular cultures.
For music majors only.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
473./573. Advanced Diction for Singers (2)
Prerequisites: MUS 273A, MUS 273B, or consent of instructor.
Advanced principles of diction and International Phonetic Alphabet (IPA) applied to lyric Italian, French, German, and English repertoire; intended for Senior and Graduate level vocalists and choral conductors. Special studies possible in other languages. Letter grade only (A-F).

474A./574A. Jazz Arranging I (2)
Prerequisites: Consent of instructor.
Fundamentals of Jazz arranging, including 4-part writing, harmonic practices and philosophies of arranging. Not open for credit to students with credit in MUS 474B/574B. Letter grade only (A-F).

474B./574B. Jazz Arranging II (2)
Prerequisite(s): MUS 474A/574A or consent of instructor.
Jazz arranging for big band through detailed analysis of known big band writers. Emphasis on reharmonization, the idiomatic use of counterpoint, styles and song forms. Letter grade only (A-F).

477./577. Piano Accompanying (2-2)
Prerequisite: MUS 277 or consent of instructor.
Instruction and training in techniques of accompanying singers, instrumentalists, and ensembles. May be repeated to a maximum of 6 units in different semesters.

478./578. Musical Instruments of World (3)
Prerequisites: MUS 360 or consent of instructor.
Open to music majors and minors. Study of origins and history of musical instruments in western and non-western world, with emphasis on cross-cultural influences, iconographical and organological issues, and scientific classification. Letter grade only (A-F).

480./580. Marching Band Techniques (2)
Marching fundamentals, charting formations, precision drills, parade techniques and half-time pageantry.

482A./582A. Secondary Literature/Rehearsal Techniques – Choral-Vocal (3)
Prerequisites: MUS 382A or consent of instructor
Examination of rehearsal techniques, methods and choral literature applicable to the Secondary and Middle School Choral Ensemble. Letter grade only (A-F).

482B./582B. Secondary Literature/Rehearsal Techniques - Instrumental (3)
Prerequisite: MUS 326, MUS 382B and at least 3 MUS 125 Methods courses.
Procedures for organization and development of instrumental programs and literature for performing groups.

483A./583A. Choral Repertoire I (2)
Prerequisite: MUS 326 or consent of instructor.
Examination of five genres of choral repertoire: Mass, motet, cantata, oratorio, and madrigal. Traditional and contemporary choral repertoire for public school teachers and church choir directors. Letter grade only (A-F).

483B./583B. Choral Repertoire II (2)
Prerequisites: MUS 326 or consent of instructor.
Survey of choral and choral/orchestral works from Renaissance to 20th century. Letter grade only (A-F).

484. Arranging (2)
Prerequisites: MUS 142B.
Arranging techniques for choir, band, and orchestra in grades K-12. Letter grade only (A-F).

485./585. Music for the Elementary Child (3)
Examination of approaches to developing musical and aesthetic sensitivities in children. Students create vocal, instrumental and listening experiences appropriate for use in grades K-6. Intended for music education majors. Others by consent of instructor.

487A. Emerging Methods in Music Education (3)
Prerequisites: Music Education major and consent of instructor. Emerging pedagogical methods for music educational settings outside of the traditional general, band, choir and orchestra. Letter grade only (A-F).

487B. Emerging Methods Chamber Performance (2)
Prerequisites: MUS 487A or consent of instructor.
Course provides students opportunities to apply concepts of vernacular learning, gained through various course work in a non-traditional, student directed, music education performance setting.

490. Introduction to Music Cultures (3)
Prerequisite: GE Foundation requirements.
Music of various world cultures and ethnic groups representative of diversity of United States. Includes music's function, social organization including age and gender roles, distinctive characteristics, types of instruments, and cultural performance standards.

491. Writing about Music (3)
Prerequisites: Completion of the GE Foundation requirements, completion of one or more Exploration courses, and upper division status. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
A writing-intensive course designed to emphasize synthesis and development of skills in written communication in the discipline of music.
In order to use MUS 491 to fulfill the Writing Intensive Capstone requirement students must earn a C or better in this course. (3 Hours lecture)
Letter grade only (A-F).

492A./592A. Studies in Keyboard Music (2)
Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from 13th century to Beethoven.

492B./592B. Studies in Keyboard Music (2)
Prerequisite: MUS 360 or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from Beethoven to present.

493./593. Selected Topics - Instrumental Music (3)
A seminar-format class on one of various topics in instrumental music, including but not limited to: symphonic literature, survey of program music, history of the concerto, chamber music survey, and history of the wind band.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

495. Selected Topics in Music (3)
Prerequisite: Consent of instructor.
Topics of current interest in various fields of music selected for special presentation and development.
May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes.
496/696. Research Methods (3)
Prerequisite: Consent of instructor.
Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as introduction to graduate study in music. Required of all MA and MM candidates in music.

497/597. Selected Topics - Music Composition (3)
Prerequisite: Consent of instructor.
Topics of current interest in field of music composition selected for special presentation and development.
Letter grade only (A-F). Topics announced in the Schedule of Classes.
D. Contemporary and Computer Music Notation
E. Composition with Interactive Technologies
G. From Poetry to Song: Composing Art Songs

499. Special Studies (1-3)
Prerequisite: Consent of instructor.
Individual research or group investigation of selected topics. May be repeated to a maximum of 6 units.

GRADUATE LEVEL

500. Selected Topics - Major Performance Organization (1)
Prerequisite: Consent of instructor. Audition may be required.
Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes.
A. Concert Band
B. Symphonic Band
C. Wind Symphony
E. Forty-Niner Chorus
F. University Choir
G. Chamber Choir
I. Orchestra at the Beach
J. Symphony Orchestra
L. Studio Jazz Band
M. Vocal Jazz Ensemble I
N. Vocal Jazz Ensemble II
O. Concert Jazz Orchestra
P. Vocal Jazz Ensemble III

510. Improvisation Styles and Literature (3)
Prerequisite: Graduate student in Music or consent of instructor.
Explores various musical styles, forms, genres, and significant musical concepts in Jazz Improvisation. Theoretical work emphasizes detailed study of harmonic and linear forms, digital patterns and scales, combination of idioms, patterns, use of experimental material, transcriptions and historic implications.
Letter grade only (A-F).

511A/411A. Film Scoring (3)
Prerequisite: Graduate student in Music or consent of instructor.
Overview of the current trends and practices involved in creating and integrating music to moving picture. Students gain experience producing music cues for film, television and video games.
Letter grade only (A-F).

511B/411B. Advanced Film Scoring Project (3)
Prerequisites: MUS 511A or consent of instructor.
Students gain advanced experience creating music cues for film, television and video games. Real-world concepts and problems will be explored with an emphasis on preparing the student for a successful career in media composition.
Letter grade only (A-F).

512. Advanced Techniques in Jazz Arranging (3)
Prerequisite: Graduate student in Music or consent of instructor.
Advanced scoring techniques used with big band arranging and orchestrating for studio/pops orchestra. Includes ranges and capabilities of instruments and scoring for traditional and contemporary instrumentation. Requires the composition of a major work to be recorded by CSULB Studio Orchestra.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

513. History and Analysis of Jazz Styles (3)
Prerequisite: Graduate student in Music or consent of instructor.
Explores development of various musical styles, forms, genres, and significant musical concepts and problems in Jazz History.
Letter grade only (A-F).

514/414. Techniques for the Jazz Vocalist (2)
Prerequisite(s): Open to jazz majors or consent of instructor.
Basic stylistic requirements for solo singing in the jazz idiom. Includes analysis of established jazz singers and styles, communication with the rhythm section, solo jazz repertoire, lyric interpretation and writing solo jazz arrangements.
Letter grade only (A-F).

516/416. Pedagogy of Jazz (2)
Organization and management of school jazz programs, addressing rehearsal techniques, improvisation, repertoire, and conducting.
Letter grade only, (A-F).

517/417. Business of Music (2)
Overview of business and artistic process of music industry. Includes popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Also includes recent changes in digital recording, broadcasting technology, copyright laws, and legal issues.
Letter grade only (A-F).

519/419. Choral Master Class (1)
Prerequisite: Consent of instructor.
Advanced conducting laboratory with emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices.
Letter grade only (A-F). May be repeated to a maximum of 4 units.

520. Graduate Conducting Seminar (3)
Prerequisite: Consent of instructor.
Advanced baton technique, interpretation, securing proper sound, organizing routine, and program making.
Letter grade only (A-F).

522/422. Advanced Choral Conducting and Literature (2)
Prerequisite: Graduate student in Music or consent of instructor.
Choral technique, style, and interpretation; choral schools and composers since 16th century; contemporary secular and sacred choral compositions. Class used as laboratory group.
Letter grade only (A-F).

524. Orchestral Literature: Performance and Styles (1)
Prerequisites: Consent of Instructor.
Performance of standard orchestral repertoire in instrumental sectional for Brass, Woodwinds, Percussion or Strings.
Letter grade only (A-F). May be repeated to a maximum of 8 units in different semesters. (2 hrs. rehearsal)

525/425. Advanced Instrumental Conducting (2)
Prerequisite: Graduate student in Music or consent of instructor.
Principles and techniques of instrumental conducting and organization. Study and interpretation of instrumental literature using class laboratory.
(1 hr lec. 2 hrs lab)
526./426. Vocal Development (2)
Prerequisite: Consent of instructor.
Theory and techniques of teaching voice.
Letter grade only (A-F).

529. Selected Topics - Individual Instruction for Music Majors (1)
Open to graduate students in music only. Private lessons in major performance medium. Application must be made to Graduate Advisor of the Bob Cole Conservatory of Music during semester prior to registration. Registration is subject to conservatory's approval.
Letter grade only (A-F). May be repeated to a maximum of 10 units with different topics in the same semester. Topics announced in the Schedule of Classes.

A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition
Y. Jazz Writing/Arranging

530. Opera (1)
Prerequisites: Consent of instructor.
Performance of excerpts and complete works for lyric theatre; solo and ensemble coaching; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction.
Letter grade only (A-F). May be repeated to a maximum of 4 units. (3 hrs or more reh.)

531. Music Theater (1)
Prerequisite: Consent of Instructor.
Performance of musical theater works and operas. Include stage management, scheduling, costuming, and set construction.
(2 hrs reh.)

532. Opera Coaching (1)
Prerequisite: Consent of instructor. Corequisite: MUS 530.
One-on-one and small group coaching for opera majors.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters. (3-5 hrs reh.)

534A./434A. German Song Repertoire (2)
Prerequisite: Graduate student in Music or consent of instructor.
Preparation of German song literature for performance, with coaching in language, musical styles, as well as vocal and accompanying techniques.
Letter grade only (A-F).

534B./434B. French Song Repertoire (2)
Prerequisite: Graduate student in Music or consent of instructor.
Preparation of French song literature for performance, with coaching in language, musical styles, as well as vocal and accompanying techniques.
Letter grade only (A-F).

536./436. Opera Repertoire (2)
Prerequisite: Graduate student in Music or consent of instructor.
Preparation of varied portfolio of voice-appropriate selections from standard operatic repertoire in English, French, German and Italian. Include translation, lyric diction, ornamentation, tools for role study, rehearsal and audition techniques.
Letter grade only (A-F).

541. Seminar in Musical Analysis (3)
Analysis of forms and techniques of musical compositions in various genres and styles.
May be repeated to a maximum of 6 units.

543./443. Advanced Orchestration (3)
Prerequisite: Graduate student in Music or consent of instructor.
Techniques of arranging, transcribing, and composing for standard chamber ensembles, chorus and orchestra. Readings of student orchestrations will be included whenever possible.

544. Graduate Composition I (2)
Corequisite: MUS 529X.
Study of contemporary techniques in composition, music aesthetics, and contemporary literature.
Letter grade only (A-F).

545. Graduate Composition II (2)
Prerequisite: MUS 544. Corequisite: MUS 529X.
Advanced studies in musical composition, music aesthetics, and listening methodologies.
Letter grade only (A-F). Course may be repeated to a maximum of 4 units in different semesters.

MUS 547/447. Counterpoint (2)
Serves as a continuation of the contrapuntal topics covered in Harmony I, Harmony II, and Form & Analysis. Covers advanced analysis of contrapuntal literature, and various student composition projects such as accompanied canon and fugue.
Letter grade only (A-F).

555./455. Electronic Music (3)
An introduction to the history and practice of electronic music, with an emphasis on listening and analysis of classical and contemporary works. The history, ethics and practice of sampling and remixing are also explored.
Letter grade only (A-F).

556./456. Sound Design (3)
Introduces students to principles of composition and analysis of electro-acoustic media through application of music software, sampling, digital media, digital signal processing, and psychoacoustics. Course culminates in collaborative creative project involving video, web, or live theater.
Letter grade only (A-F).

557./457. Composition with Digital Media (3)
Computer created projects that combine visual media (including web-based), and electronic music. Analysis of interdisciplinary and mixed media works, collaborative work in electronic arts and readings in critical theory and multimedia.
Letter grade only (A-F).
558./458. Literature and Aesthetics of Interactive Media (3)
Explore artists'/composers' use of interactive media from the intermediality and limited interactivity of Wagner’s and Scriabin’s works, to the latest software-driven and web-based constructions, to gain a better understanding of the philosophical and musical context for the students' works.

561. Seminar in Medieval and Renaissance Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Topics in development of musical styles and genres from Gregorian Chant through late sixteenth-century sacred and secular polyphony.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

562. Seminar In Baroque Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Stylistic analysis and inquiry into cultural background of composers and genres. Letter grade only (A-F). May be repeated to a maximum of 6 units.

563. Seminar In Classical Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Music from Rococo to end of eighteenth century. Philosophical attitudes in relation to musical styles. Letter grade only (A-F). May be repeated to a maximum of 6 units.

564. Seminar in Romantic Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Music from Beethoven to end of nineteenth century. Letter grade only (A-F). May be repeated to a maximum of 6 units.

565. Seminar In 20th-Century Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Stylistic analysis and music; aesthetic and socioeconomic problems of contemporary music; survey of new music. Letter grade only (A-F). May be repeated to a maximum of 6 units.

566./469. Music of the Theater (3)
Prerequisite: Graduate student in Music or consent of instructor. History and development of music for stage from 1600 to present, its conventions and styles. Analysis of representative masterworks. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

571./471. Studies in Ethnomusicology (3)
Prerequisite: Graduate student in Music or consent of instructor. Emphasis on theory and methodology of ethnomusicological study. Investigation of music of particular non-western or popular cultures. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

573./473. Advanced Diction for Singers (2)
Prerequisite: Graduate student in Music or consent of instructor. Advanced principles of diction and International Phonetic Alphabet (IPA) applied to lyric Italian, French, German, and English repertoire; intended for Senior and Graduate level vocalists and choral conductors. Special studies possible in other languages. Letter grade only (A-F).

574A./474A. Jazz Arranging I (2)
Prerequisite: Consent of instructor. Fundamentals of Jazz arranging, including 4-part writing, harmonic practices and philosophies of arranging. Letter grade only (A-F). Not open for credit to students with credit in MUS 474B/574B.

574B./474B. Jazz Arranging II (2)
Prerequisite(s): MUS 474A/574A or consent of instructor. Jazz arranging for big band through detailed analysis of known big band writers. Emphasis on reharmonization, the idiomatic use of counterpoint, styles and song forms.

575. Studies in Choral Music (3)
Prerequisite: Consent of instructor. Studies in research techniques for choral musicians and exploration of choral masterworks including score preparation, performance practice considerations, and historical investigation. Rehearsal techniques and principles and procedures necessary to effective choral teaching also examined. Letter grade only (A-F). May be repeated to a maximum of 6 units.

576./467. Studies in Gender and Music (3)
Prerequisite: Graduate student in Music or consent of instructor. Surveys issues surrounding women as musicians (performers and composers), comparative studies of role men and women have played in music, and feminist criticism of music. Letter grade only (A-F).

577./477. Piano Accompanying (2-2)
Prerequisite: Graduate student in Music or consent of instructor. Instruction and training in art and techniques of accompanying for singers, instrumentalists, and ensembles. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semester.

578./478. Musical Instruments of World (3)
Prerequisite: Graduate student in Music or consent of instructor. Open to music majors and minors. Study of origins and history of musical instruments in western and non-western world, with emphasis on cross-cultural influences, iconographical and organological issues, and scientific classification. Letter grade only (A-F).

580./480. Marching Band Techniques (2)
Marching fundamentals, charting, formations, precision drills, parade techniques and half-time pageantry. Letter grade only (A-F).

581. Foundations of Music Education (3)
Open to graduate music majors only. Survey of contemporary aesthetic, philosophical, psychological and sociological trends in music education. Letter grade only (A-F).

582A./482A. Secondary Literature/Rehearsal Techniques – Choral-Vocal (3)
Examination of rehearsal techniques, methods and choral literature applicable to the Secondary and Middle School Choral Ensemble. Letter grade only (A-F).

582B./482B. Secondary Literature/Rehearsal Techniques – Instrumental (3)
Procedures for organization and development of instrumental programs and literature for performing groups. Letter grade only (A-F).

583A./483A. Choral Repertoire I (2)
Prerequisite: Graduate student in Music or consent of instructor. Examination of five genres of choral repertoire: Mass, motet, cantata, oratorio, and madrigal. Traditional and contemporary choral repertoire for public school teachers and church choir directors. Letter grade only (A-F).

583B./483B. Choral Repertoire II (2)
Prerequisite: Graduate student in Music or consent of instructor. Survey of choral and choral/orchestral works from Renaissance to 20th century. Letter grade only (A-F).
585./485. Music for Elementary Child (3)
Examination of approaches to developing musical and aesthetic sensitivities in children. Students create vocal, instrumental and listening experiences appropriate for use in grades K-6. Intended for music education majors. Others by consent of instructor.
Letter grade only (A-F).

587. Contemporary Trends in Assessment and Technology in Music Education (3)
Prerequisite: Graduate student in Music or consent of instructor.
Introduction to research methodologies and analysis of current trends in measurement and evaluation of musical behavior with an emphasis on innovations in music education. Application of methodologies that includes technology as a teaching and performance instrument.
Letter grade only (A-F).

589A. Emerging Methods in Music Education (3)
Prerequisite: BM Music Education or equivalent with instructor’s consent
Emerging pedagogical methods for music education settings outside of the traditional general, band, choir, and orchestra settings.
Letter grade only (A-F).

589B. Emerging Methods in Music Education (2)
Prerequisites: BM Music Education or equivalent, and MUS 589A.
The course will include a combination of lecture, discussion, modeling, and "hands-on" performance activities.
The application of concepts of vernacular learning, gained through various course work (MUS 589A), in a non-traditional, student directed, music education performance setting.
Letter grade only (A-F).

592A./492A. Studies in Keyboard Music (2)
Prerequisite: Graduate student in Music or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from 13th century to Beethoven.
Not open for credit to students with credit in MUS 592.

592B./492B. Studies in Keyboard Music (2)
Prerequisite: Graduate student in Music or consent of instructor.
Survey of evolution of keyboard music including clavichord, harpsichord, piano, and organ from Beethoven to present.

593./493. Selected Topics - Instrumental Music (3)
Prerequisite: Graduate student in Music or consent of instructor.
Seminar in instrumental music spanning at least two epochs of music history and covering at minimum, two of five categories: solo sonata (excluding keyboard), chamber music, orchestral/symphonic, wind ensemble/band, and orchestral/concerto.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
Topics announced in the Schedule of Classes.

595. Selected Topics in Music (1-3)
Prerequisite: Consent of graduate advisor and instructor.
Topics of current interest in various fields of music selected for special presentation and development.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

597./497. Selected Topics - Music Composition (3)
Prerequisite: Consent of graduate advisor and instructor.
Topics of current interest in various fields of music selected for special presentation and development.
Letter grade only (A-F). Topics announced in the Schedule of Classes:
- D. Contemporary and Computer Music Notation
- E. Composition with Interactive Technologies
- G. From Poetry to Song: Composing Art Songs

598. Teaching Music in the University (1)
Prerequisite: position as TA or GA in the Bob Cole Conservatory of Music or consent of instructor.
Seminar on teaching methods, goals, and objectives; covers regulations and responsibilities; preparation of course materials; assessment and evaluation tools; technology in classroom.
Required of first-term TAs and GAs with teaching responsibilities.
Letter grade only (A-F). May be repeated to a maximum of 3 units.

599. Special Studies (1-3)
Prerequisite: Consent of Graduate Advisor and instructor.
Individual research or group investigation of selected topics.
Letter grade only (A-F). May be repeated to a maximum of 6 units of credit.

600. Selected Topics - Chamber Music (1)
Prerequisite: Consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 8 units with different topics in the same semester. Topics announced in the Schedule of Classes. (2 hrs reh.)
- A. Brass Ensemble
- B. New Music Ensemble
- C. String Ensemble
- D. University String Quartet
- E. University Wind Quintet
- F. University Brass Quintet
- G. Piano Ensemble
- I. Men's Chorus
- J. Jazz Combos
- K. Performance
- L. Brass Chamber Music
- M. Percussion Ensemble
- N. Steel Drum Orchestra
- O. Woodwind Chamber Music
- P. String Chamber Music
- Q. Women's Chorus
- R. Collegium-Vocal
- S. Collegium-Instrumental
- T. Saxophone Ensemble
- U. Directed Accompanying
- W. Laptop Ensemble
- X. World Percussion Group
- Y. World/Traditional Music Performance
- Z. University Percussion Group

D. Contemporary and Computer Music Notation
E. Composition with Interactive Technologies
G. From Poetry to Song: Composing Art Songs
Selected Topics - Individual Instruction for Music Majors (2)

Open to graduate students in music only. Private lessons in their major performance medium. Application must be made to Graduate Advisor of the Bob Cole Conservatory of Music during semester prior to registration. Registration is subject to conservatory's approval.

Letter grade only (A-F). May be repeated to a maximum of 12 units with different topics in the same semester. Topics announced in the Schedule of Classes.

A. Baritone/Tuba
B. French Horn
C. Trombone
D. Trumpet
E. Harpsichord
F. Organ
G. Piano
J. Percussion
K. Double Bass
L. Cello
M. Viola
N. Violin
O. Guitar
P. Harp
Q. Voice
R. Bassoon
S. Clarinet
T. Flute
U. Oboe
V. Saxophone
W. Conducting
X. Composition

Seminar in Music Theory (3)
Prerequisites: MUS 541 and consent of instructor.

Intensive seminar focusing on analytical and theoretical issues in music. May center on individual composer, theoretical technique, or history of theory.

Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters

Seminar in Instrumental Music Teaching (3)
Prerequisite: Consent of instructor.

Principles, procedures, and materials used in teaching instrumental music in public schools. Special attention given to methods and materials used in instrument classes.

Letter grade only (A-F).

Research Methods (3)
Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as introduction to graduate study in music. Required of all MA and MM candidates in music.

Letter grade only (A-F).

Thesis or Project (1-6)
Prerequisite: Advancement to Candidacy and consent of Director of Music History
Planning, preparation, research, and completion of recital/project report or thesis. Enrollment limited to graduate candidates who have passed qualifying examination for their program and who have approved project/thesis proposal.

Letter grade only (A-F).
NATURAL SCIENCES AND MATHEMATICS, COLLEGE OF

Dean: Laura Kingsford
Associate Dean for Academic Programs, Evaluation, and Advising: Krzysztof Slowinski
Associate Dean of Student Support: Henry C. Fung
Associate Dean for Research and External Support: Kevin M. Kelley
Director for Instructional and Research Facilities: Robert L. Loeschen
Director of Development: MaryAnne Horton
Administrative Services Manager: Henry Wu
Assistant to the Dean: Lane Olsen-Cooper
College Office: Hall of Science (HSCI), Room 160
Telephone / FAX: (562) 985-4707 / (562) 985-2315
Website: http://www.cnsm.csulb.edu

Departments
Biological Sciences
Brian T. Livingston, Chair (562) 985-4806
Chemistry and Biochemistry
Christopher Z. Brazier, Chair (562) 985-4941
Geological Sciences
Robert D. Francis, Chair (562) 985-4809
Mathematics and Statistics
Tangan Gao, Chair (562) 985-4721
Physics and Astronomy
Chuhee Kwon, Chair (562) 985-4924
Science Education
Lisa Martin-Hansen, Chair (562) 985-4801

CNSM Academic Advising Center
Advisor: Angela Tuan
Office: HSCI 164
Telephone: (562) 985-1587

Jensen Student Access to Science and Mathematics Center
Co-Directors: Henry C. Fung
Office: HSCI 164
Telephone / FAX: (562) 985-4682 / (562) 985-5104

CNSM Science Learning Center
Director, Jim McKibben
Office: HSCI 164
Telephone (562) 985-4841

Introduction
The College of Natural Sciences and Mathematics (CNSM) provides quality educational opportunities in the life, physical sciences, and mathematics. Alumni of the College demonstrate that science and mathematics graduates are well-prepared to enter graduate and professional schools or to assume responsible positions in industry or government.

The College takes its responsibilities in teacher preparation in the sciences and mathematics very seriously. It participates in projects that provide a stronger, more rigorous, and more engaging set of teacher preparation programs at CSULB. There is funding from the National Science Foundation, NASA, and the Knight Foundation, and in collaboration with Colleges of Education and Liberal Arts, Long Beach Unified School District, and Long Beach City College.

Departments
Biological Sciences
Chemistry and Biochemistry
Geological Sciences
Mathematics and Statistics
Ocean Studies Institute
Physics and Astronomy
Science Education

Programs at a Glance
Bachelor of Arts:
Chemistry, Physics
Bachelor of Science:
Biochemistry, Biology, Chemistry, Earth Science, Environmental Science and Policy, Geology, Marine Biology, Mathematics, Microbiology, Physics
Master of Science:
Biochemistry, Biology, Chemistry, Geology, Mathematics, Microbiology, Physics, Science Education, Statistics
Certificates:
Biotechnology
Minors:
Applied Mathematics, Biology, Chemistry, Geology, Physiology, Mathematics, Microbiology, Physics, Statistics
Single Subject Teaching Credentials:
Biological Science, Chemistry, Geosciences, Mathematics, Physics

College of Natural Sciences and Mathematics’ Academic Advising Center
All students are urged to participate in the Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in Natural Sciences and Mathematics) for transfer students. Programs offered each July (for those entering in August-September) and January (for those entering in January). A department advisor will be available to assist in developing an academic plan. During the semester, students may obtain academic advising by contacting the CNSM Academic Advising Center (HSCI-164) and/or appropriate advisor(s) in the department offering the chosen degree program.

The CNSM Academic Advising Center located in the Hall of Science, Room 164 (HSCI-164) collaborates with the College’s undergraduate advisors to provide its majors with academic advising and support services so students can achieve their personal, academic, and career goals. Some of the services provided to CNSM majors include information and resources about academic programs; selection and sequence of courses; assistance with enrollment for courses; helping majors develop short- and long-term goals; assistance in navigating academic requirements, policies, and procedures; and providing appropriate referrals and career planning. The Academic Advising Center staff is available for appointments and some
walk-in assistance. Please contact the Academic Advising Center for more information.

Jensen Student Access to Science and Mathematics (SAS) Center and Programs Offered

The Center (HSCI 164) is dedicated to promoting success for students who pursue majors in the College and those who take courses in its departments. It also facilitates several externally funded programs. The Center provides space for studying, tutoring, mentoring, computer access, and meeting sites for student-centered activities. The Center serves as the resource center for health profession advising, graduate school opportunities, and summer research opportunities and fellowships.

There are a host of activities and programs that strive to involve students and promote their success in science and mathematics. Several federally funded programs, the Center is dependent on external funding, focus on underserved students and address the diversity of our campus. In addition to fostering involvement of students in science and mathematics, they feature an ethnic identity that provides a unique encouragement for our science majors.

MARC/RISE Programs. The College hosts both programs funded by The National Institutes of General Medical Sciences: Minority Access to Research Careers (MARC) and Research Institute for Scientific Enhancement (RISE). Both programs have the goal of increasing the number and quality of students from specifically targeted groups/populations who pursue careers in scientific research. Students supported by these programs carry out state-of-the-art biomedical research projects in conjunction with a member of the faculty. MARC is an honors program (GPA 3.0) for upper division students, while RISE supports students as early as the freshman year and also upper division transfer students. As a result of their research activities, most students present papers at scientific conferences and often co-author publications appearing in leading scientific journals. MARC/RISE students are active in various outreach and mentoring activities.

Beckman Scholars Program. The program focuses on students who have the potential to achieve distinction in their academic fields. Support is provided for students working toward bachelor’s degrees in chemistry, biology, or physics in the form of student stipends, laboratory supplies and funds for travel to appropriate scientific meetings. Students receive rigorous training by faculty members in a variety of techniques involved in nucleic acid research, protein biochemistry, biophysics, etc.

Bridges to the Baccalaureate Program. This program is funded by the National Institutes of General Medical Sciences and its goal is to provide historically underserved community college students with research opportunities in the biomedical sciences and to facilitate transition into baccalaureate and doctorate granting institutions.

LS-AMP Program. The College hosts the National Science Foundation's Louis Stokes Alliance for Minority Participation (LS-AMP) program. Its goal is to improve the mathematics and science preparation for historically underserved students majoring in the sciences, mathematics, and engineering and to enhance their opportunities for graduate studies.

Physics Teacher Education Coalition (PhysTEC) Program. The CSULB PhysTEC Program, supported by the American Physical Society, National Science Foundation, and the CSULB’s College of Natural Sciences and Mathematics, is a collaborative project between the Department of Physics and Astronomy, Department of Science Education, and the Teacher-in-Residence program recruited from local high schools. The PhysTEC Program aims to increase the number of physics majors earning teaching credentials at CSULB by actively recruiting, providing opportunities for early teaching experiences, and continuing the support structures for teachers at all levels. For additional information, please see <www.physicsatthebeach.com>.

Physical Science and Mathematics Scholarship Program. The CSULB Physical Science and Mathematics Scholarship (PSMS) Program, funded by the National Science Foundation, is to increase diversity in the science, technology, engineering, and mathematics workforce and graduate studies. Qualified students are eligible for scholarships and access to best practices which contribute to student success and competitive applications for advanced studies. More information is available at www.csulb.edu/psmscholarship.

Science and Mathematics Enrichment and Peer Mentor Programs. This program is designed to provide first time freshmen in the College of Natural Sciences and Mathematics with the guidance and personal support. The program assists students to enroll in classes appropriate for their major and background, provides them with enriched learning experiences, and peer role models during their first academic year. The Science and Mathematics Enrichment Program (SMEP) begins the week prior to the start of the fall semester. To be part of the program, students must be declared science or math majors. Peer mentoring provides students opportunities for tutoring to strengthen academic and communication skills.

Honors in Biological Sciences. This program was initiated by a grant from the Howard Hughes Medical Institute. Open to students with majors or career goals in the life sciences or related fields, it features an honors curriculum including courses in bioinformatics and research design as well as undergraduate research leading to a senior honors thesis and presentation at scientific conferences.

Health Professions Advising Office (HPAO)

This office (HSCI-164) provides a wide range of advising and support services for students pursuing preparation and application to professional schools. The HPAO offers individual counseling, academic planning, application assistance, and many other resources designed specially for students interested in medicine, dentistry, veterinary, pharmacy, optometry, podiatry, chiropractic, physician assistant, physical therapy, and graduate nursing.

College of Natural Sciences and Mathematics' Science Learning Center

The CNSM Science Learning Center is located in Hall of Science, Room 110 (HSCI-110). This is a hands-on museum that houses many displays and exhibits from the College’s six departments; Biological Sciences, Chemistry and Biochemistry, Geological Sciences, Mathematics and Statistics, Physics and Astronomy, and Science Education. The exhibits demonstrate concepts that are easier to understand through direct
physical involvement and personal discovery. Visitors are encouraged to turn the handles, push the buttons, and twist the knobs to enable the visitor’s personal discoveries of science behind the display. These exhibits complement the K-12 science curricula. The Science Learning Center also has a 27 foot Mobile Science Museum. Converted from a motor home into a hands-on laboratory, it makes visits to local schools, industry, and community events. Groups interested in visiting the CNSM Science Learning Center, or arranging for a visit by the Mobile Science Museum may contact the Science Learning Center for additional information (562-985-4841).

Student Research Opportunities

Faculty members in the College involve more than 200 students annually, both undergraduate and graduate, in a variety of research activities. Many of these students are supported by research grants, especially during the summer months. Each year many of these students present the results of their research at scientific conferences. It is not unusual for a student to be an author on an article appearing in a major scientific journal.

Early each fall semester, the College, in collaboration with the Jensen Student Access to Sciences and Mathematics Center, hosts an Annual Research Symposium for students to present their findings of the research conducted in laboratories of CNSM faculty. The Symposium is open to members of the University and the greater Southern California community.

The Electron Microscopy Facility

The study of the natural sciences requires observation of the macroscopic, microscopic, and sub-microscopic character of our universe. The College has a modern Electron Microscope (EM) Facility, utilizing a Joel-1200EXII transmission electron microscope (TEM), which is used by several undergraduate courses in addition to undergraduate and graduate research projects. The EM Facility also houses additional TEMs and an AMR 1000 scanning electron microscope has analytical capabilities.

Student Organizations

The College of Natural Sciences and Mathematics Student Council sponsors annual events including the Nobel Laureate series and student-faculty-staff mixer. There are various social and academic-related programs that offer peer support, as well as opportunities for students and faculty to interact outside of the classroom.

Other student-led groups offer activities for students who are planning careers in one of the health professions (medicine, dentistry, etc.). The Organization of PreProfessional Students (T.O.P.P.S.) and Association of Pre-Dental Students (A.P.D.S.) have speaker series with representatives from professional schools; the group also holds social functions and provides a peer advising network. Chicanos/Latinos for Community Medicine (CCM) sponsors community outreach activities, an annual workshop on interviewing techniques, and an annual conference on applying to medical/professional schools.

Southern California Marine Institute (SCMI)

The Institute operates a number of research vessels, and provides the mechanism whereby students from CSU Ocean Studies Consortium campuses at Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Diego, and San Marcos, as well as Occidental College and the University of Southern California can share courses and degree programs. In addition, Institute staff conduct research and facilitate the research of CSU faculty. The major focus is on harbors and coastal areas, with emphasis on environmental issues.

California Desert Studies Consortium

CSULB participates in the California Desert Studies Consortium, which has a Desert Studies Center in the heart of the Mojave Desert at Soda Springs near the town of Baker. The surrounding area consists of typical Mojave Desert with dry lakes, sand dunes, and mountain ranges; it is the gateway to Death Valley and the Kelso Dunes. The Center has facilities for teaching field classes and for research. California State Universities at Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, and San Bernardino are the Consortia members.

Institute for Integrated Research in Materials, Environment, and Society (IIRMES)

IIRMES promotes and enhances educational and research opportunities for faculty, graduate and undergraduate students and the greater community at large. The major goals and accompanying benefits include research and scholarly activity; development of instructional programs to provide student training and research; and contribution to community service. IIRMES promotes cross-application of analytical techniques; facilitates access to state-of-the-art instrumentation for researchers; sponsors colloquia, lectures, and conferences; promotes interdisciplinary workshops and collaborations with other universities to create research possibilities for faculty and students; promotes educational programs and research opportunities for CSULB undergraduate and graduate students; provides analytical services for scientific community; and serves as a core CSU facility for elemental microanalysis.

CSUPERB Core Facility for Micro-Chemical Elemental Analysis (FEMCA)

California State University Program for Education and Research in Biotechnology (CSUPERB) has created a core facility for elemental micro-chemical analysis (FEMCA). FEMCA’s principal goal is to enhance the educational and research opportunities of students and faculty members in the CSU system who wish to pursue novel research in biotechnology. The facility builds on strong interdisciplinary ties between the biological, chemical, and physical sciences. FEMCA is housed within IIRMES for molecular and elemental analysis; scanning, transmission and atomic force microscopy; as well as purpose-built clean-room facilities for organic and inorganic extractions and sample preparation.

Center for Education in Proteomics Analysis (CEPA)

A grant from the W.M. Keck Foundation and supplemental funds provided by the College of Natural Sciences and Mathematics at CSULB enabled purchase of an Applied Biosystems 4800 Matrix Assisted Laser Desorption Ionization, tandem Time of Flight Mass Spectrometer for protein and polypeptide analysis and identification. CEPA is part of
Courses (NSCI)

LOWER DIVISION

190A. Experience Success Program - 1 (1)
Prerequisite: Open to Freshmen only.
Learn and adopt organizational time management study and test taking skills. Increase your awareness of science and mathematics related career options. Make connections with CNSM programs, resources, and people.
Letter grade only (A-F). (Seminar 1 hr)

190B. Experience Success Program - 2 (1)
Prerequisite: NSCI 190A.
Explore science/math careers via job shadowing experiences and community based mini-internships. Learn about summer internship and research opportunities.
Letter grade only (A-F). (Seminar 1 hr.)

191. Selected Topics in Natural Sciences and Mathematics (1-3 units)
Prerequisite: Lower division pre-major in Biology, Biochemistry, Chemistry, Geology, Marine Biology, Microbiology, or Physics
Specific topics of current interest in the natural sciences.
(Lecture 1 hr/unit). May be repeated to a maximum of 3 units with different topics in different semesters. Topics will be announced in the Schedule of Classes.
Letter grading only (A-F)

296. Introduction to Biomedical Research Methods (3 units)
Prerequisite: GE foundation requirements and consent of instructor.
Introduction to principles and ethics of experimentation, hypothesis formulation, and testing. Data measurement, analysis and presentation. Students will learn how to find and read scientific literature, keep a laboratory notebook and basic data graphing and analysis skills.
Letter grading only (A-F). Same course as ENGR 296. Not open for credit to students with credit in ENGR 296.

UPPER DIVISION

305. Origami in Science, Mathematics, and Education (3)
Prerequisites: GE Foundation requirements.
Hands-on instruction in the creation of origami works of fine art. Applications of folding materials in science, engineering, mathematics, and as a pedagogical tool in education.
(Lecture 3 hrs.)

361. Scientific Research Communications (3)
Prerequisite: G.E. foundation courses; score of 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Introduction to technical writing for students pursuing research careers. Accessing and using research literature. Writing technical and research reports for various purposes and audiences. Oral presentation of research and scientific information. Includes intensive writing.
Letter grade only (A-F). Same course as HHS 361, CLA 361, and ENGR 361. Not open for credit to students with credit in HHS 361, CLA 361, or ENGR 361.

390. Experience Success Program for STEM Transfer Students (1)
Prerequisite: Open only to first semester transfer students with majors in CNSM or COE.
Learn to master time management, test taking skills, CV, professional statements and cover letter writing. Explore STEM careers. Learn about CNSM programs and opportunities which will support your professional growth.
Letter grade only (A-F). (Seminar 1 hr)

490. Special Topics in the Natural Sciences (1-3)
Prerequisites: At least upper division standing in the College of Natural Sciences and Mathematics and consent of instructor.
Faculty and student discussions and analysis of a current topic in the natural sciences.
May be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). (Lecture 1-3 hrs.)

490L. Special Topics in the Natural Sciences, Laboratory (1-3)
Prerequisite: At least upper division standing in the College of Natural Sciences and Mathematics and consent of instructor.
Laboratory topics from selected areas of natural sciences.
Letter grade only (A-F). (Laboratory 2-9 hours).

492. Internships In Natural Science (3)
Prerequisites: Major in the College of Natural Sciences and Mathematics, completion of 9 units of upper division science coursework, a 2.5 GPA overall or 2.75 GPA in the student’s major, and consent of instructor prior to registration.
Qualifying students placed in a major or career-related assignment in private industry or at a public agency. May be placed in either a volunteer or paid work assignment. Teacher aide positions may be used for students interested in pursuing a career in science education in K-12 schools.
Learning assignments will be arranged through the Career Development Center and the instructor. Final written report required. Class attendance and internships to be arranged by the instructor. Minimum of 120 hours of field experience required. Credit/No credit grading only. May be repeated to a maximum of 6 units

496. Advanced Behavioral Research Methods (3)
Prerequisites: ENGR 296 or NSCI 296, and HHS 361 or CLA 361 or ENGR 361 or NSCI 361, or consent of instructor.
An advanced study of the theoretical and practical aspects of conducting biomedical research including hypothesis formulation, experimental design, assessment of error within empirical data, and the preparation of sound and fundable grant proposals.
Same course as ENGR 496. Not open for credit to students with credit in ENGR 496
Letter grade only (A-F).

GRADUATE LEVEL

501. Project Management for Scientists (3)
Prerequisites: Consent of instructor. Not open to majors in the College of Business Administration.
Best practices utilized in scientific project management; includes project initiation, team dynamics, planning, scheduling, risk management, control, closure and evaluation. Applying gained knowledge to manage a project in their own scientific discipline. Offered in online or hybrid format.
Letter grade only (A-F). (Lecture 3 hrs)
502. Leadership and Management for Scientists (3)
Prerequisites: Consent of instructor. Not open to majors in the College of Business Administration.
Prepares students entering science-related careers with a foundation in management skills. Fundamentals of leadership, teamwork, motivation, planning, and organizational strategy and structure are presented along with human resource management topics including performance management, recruitment and selection, compensation and employment law. Offered in online or hybrid format.
Letter grade only (A-F). (3 hours activity)

503. Accounting and Finance for Scientists (3)
Prerequisites: Consent of instructor. Not open to majors in the College of Business Administration.
Introduction to concepts of accounting and financial management, focusing on scientific grants and contracts. Topics include: budgeting, planning and control; break-even, cost benefit and financial statement analysis; time-value of money; risk-return; capital and long term financing and investments. Offered in online or hybrid format.
Letter grade only (A-F). (3 hours activity)

504. Introduction to Regulatory Science (3)
Prerequisites: Consent of instructor. Not open to majors in the College of Business Administration.
Introduction to legal and regulatory issues important in engineering, technology, and scientific activities in the pharmaceutical and medical device industries. Offered in online or hybrid format.
Letter grade only (A-F). (3 hours activity)

505. Professional Ethics (3)
Prerequisites: Consent of instructor. Not open to majors in the College of Business Administration.
Introduction to the standards of professional practice and codes of ethics in the responsible conduct of scientific research. Course objectives fulfill the federally mandated requirements and professional standards for training in the area of scientific ethics and best practices. Offered in online or hybrid format.
Letter grade only (A-F). (3 hours activity)
NURSING, SCHOOL OF  
College of Health and Human Services

Director of School of Nursing: Loucine Huckabay  
Director of Graduate Program: Ronald Norby  
Director of Undergraduate Program: Beth Keely  
School Office: Nursing Building (NUR), Room 60H  
Telephone: (562) 985-4463  
Faculty: Margaret Brady (Emerita), Lyn Callahan, Natalie Cheffer,  
Catherine Cummings, Kathryn Deitch (Emerita), Annie O’Dell,  
Joy Goebel, Loucine Huckabay, Ahlam Jadalla, Leayn Johnson  
(Emerita), Beth Keely, Bonnie Kellogg (Emerita), Jarlina Ketola,  
Kholoud Khalil, Farideh Khoiny, David Kumrow, Anthony McGuire,  
Ruth G. Mullins (Emerita), Barbara J. Nelms, Nancy Oliver  
(Emerita), Sharon L. Roberts (Emerita), Savitri Singh-Carlson,  
Judy E. Smith (Emerita), Christine Talmadge (Emerita), Lucy Van  
Otterloo, Eileen Watson, Barbara White, Pamela Xandrea  
Students desiring information should contact the school office  
for dates of opening counseling sessions.

Career Possibilities
Office Nurse • Nurse Consultant • Public Health Nurse  
• Clinical/Staff Nurse • Industrial Nurse • Private Duty Nurse  
• Home Health Care Nurse • Clinical Specialist • Nurse  
Practitioner • Armed Forces Officer • Nurse Supervisor •  
Nursing and Health Systems Executive • Teacher • Training  
Director • Public Health Education (Some of these, and  
other careers, require additional education or experience.  
For more information, see www.careers.csulb.edu.)

Bachelor of Science in Nursing
This program prepares students to become professional nurses. Two distinct categories of students are eligible for admission: The “basic student” who enters the University without having completed a first level nursing program and the “registered nurse student” who, having completed the first level, desires further study to expand their nursing capabilities to the BSN professional level. The “basic student” is eligible to take the examination for licensure to practice as a registered nurse upon completion of the program. All graduates are recommended for certification as a public health nurse in the State of California. The program is accredited by the California State Board of Registered Nursing, and the Commission on Collegiate Nursing Education (Commission on Collegiate Nursing Education, 1 Dupont Circle, NW, Suite 530,  

Bachelor of Science in Nursing – Basic  
(120 units)

Admission Under Impaction
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

In order to be considered for transfer admission to the Nursing major, students must complete a series of prerequisite courses: written communication, oral

Degree Progress for Pre-Nursing Majors
Pre-Nursing majors must complete the following requirements within four semesters of being admitted as a Pre-Nursing major or declaring a Pre-Nursing major. Some students may need to take courses during Summer Session to meet these requirements. At the end of the four semesters after Declaration of a Pre-Nursing major, students who have not met the requirements must either declare another major or meet with an Academic Advisor to determine if the student’s performance in the courses merits an additional semester to complete.

At the end of the second semester, pre-nursing students must have a grade of “C” or better in general education certified written communication, oral communication, critical thinking, and STAT 108 courses as well as a combined GPA of 3.0 or better in these prerequisite courses.

Pre-Nursing students with an ELM score that places them in MAPB 1 or MAPB 7 or MAPB 11 may petition for an additional semester.

At the end of the fourth semester, pre-nursing students must have a “C” grade or better in BIOL 207, BIOL 208, CHEM 140, and BIOL 201 as well as a combined GPA of 3.0 or better in these prerequisite courses.

At the end of the fourth semester, Pre-Nursing students must apply to become Nursing majors. Candidates must complete a General Assessment Test and should contact the school to learn how to take the General Assessment Test. In reviewing applications, a personal profile is developed for each applicant based on GPA, in prerequisite courses and the General Assessment Test. The largest weight in the profile is derived from the prerequisite science course GPA, with typical grade point averages for these courses being 3.25 or higher and no grades below a “C.” Candidates with the highest profile scores are selected for admission.

It is anticipated that about seventy-two (72) students will be admitted each Fall and Spring semester from hundreds of applicants.

Requirements
Natural Science Prerequisites:
Take all of the following courses:

CHEM 140 General, Organic, and Biochemistry (5)  
Prerequisites: Restricted to Pre-Nursing majors. A grade of “C” or better in MATH 108 or MATH 113 or MATH 117 or MATH 119A or MATH 122 or STAT 108; high school chemistry or equivalent.

BIOL 207 Human Physiology (4)  
Prerequisites: GE Foundation requirements.

BIOL 208 Human Anatomy (4)  
Prerequisites: Grade of “C” or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.
Nursing Courses:

Support courses:

Take all of the following courses:

- **English Composition**, STAT 108 (Quantitative Reasoning), Oral Communication, and Critical Thinking
- Support courses:
  - BIOL 201 General Microbiology for Health Professional (or equivalent) (4)
  - Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.

Prerequisite General Education Courses:

Take all of the following courses:

- **English Composition**, STAT 108 (Quantitative Reasoning), Oral Communication, and Critical Thinking
- Prerequisites: BIOL 201 General Microbiology for Health Professional (or equivalent) (4)

NRSG 200 Foundation of Professional Nursing (6)
- Prerequisites: NRSG 302, NRSG 305, and NUTR 339, or consent of instructor.

NRSG 250 Intermediate Medical Surgical Nursing (6)
- Prerequisites: NRSG 200, NRSG 302, NRSG 305, and NUTR 339, or consent of instructor. Corequisites: NRSG 312 and 321, or consent of instructor.

NRSG 302 Foundations of Clinical Pharmacology (2)
- Prerequisites: BIOL 207, 208, CHEM 140, BIOL 201, MICRO 200 or consent of instructor. Corequisites: NRSG 200, NRSG 305 and NUTR 339.

NRSG 305 Pathophysiology for Nurses (3)
- Prerequisites: Admission to the School of Nursing or consent of instructor. Corequisites: NRSG 200, NRSG 302 and NUTR 339.

NRSG 312 Health Assessment (3)
- Prerequisites: Basic students: NRSG 200, NRSG 302, NRSG 305, and NUTR 339, or consent of instructor. Corequisites: Basic students: NRSG 250 and NRSG 321, or consent of instructor.

NRSG 321 Health Care of the Childbearing Family (6)
- Prerequisites: NRSG 200, NRSG 302, NRSG 305, NUTR 339 or consent of instructor. Corequisites: NRSG 250 and NRSG 312, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

NRSG 331 Advanced Acute Care Nursing (5)
- Prerequisites: NRSG 250, NRSG 312 and NRSG 321 or consent of instructor. Corequisites: NRSG 341 and GERN 400, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

NRSG 341 Psychiatric/Mental Health Nursing (6)
- Prerequisites: PSY 100, SOC 100, NRSG 250, NRSG 312, NRSG 321 or consent of instructor. Corequisites: NRSG 331, GERN 400 or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

NRSG 353 Legal Aspects of Health Care (2)
- Prerequisites: NRSG 331, NRSG 341, and GERN 400, or consent of instructor. Corequisites: NRSG 361 and NRSG 402, or consent of instructor.

NRSG 361 Child Health Care (6)
- Prerequisites: NRSG 331, NRSG 341, and GERN 400 or consent of instructor. Corequisites: NRSG 353 and NRSG 402, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

NRSG 402 Community Health Nursing (6)
- Prerequisites: NRSG 331, NRSG 341, and GERN 400 or consent of instructor; for RNs NRSG 305, NRSG 312, or consent of instructor. Corequisites: NRSG 361, NRSG 353, or consent of instructor.

NRSG 450 Nursing Research (3)
- Prerequisites: NRSG 335, NRSG 361, and NRSG 402 or consent of instructor. Corequisites: NRSG 452 or NRSG 453 or NRSG 454, NRSG 456 and NRSG 458.

NRSG 456 Health Care Delivery Systems and Nursing Leadership (3)
- Prerequisites: NRSG 335, NRSG 361, and NRSG 402, or consent of instructor. Corequisites: NRSG 450, NRSG 452 or NRSG 453 or NRSG 454, or consent of instructor.

NRSG 458 NCLEX-RN Preparatory Course (1)
- Prerequisites: NRSG 361, NRSG 402, and NRSG 353. Corequisites: NRSG 450, NRSG 456 and NRSG 452 or NRSG 453 or NRSG 454.

Select one of the following:

- NRSG 452 Senior Concentration in Critical Care (6)
  - Prerequisites: NRSG 353, NRSG 361, and NRSG 402, or consent of instructor. Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

- NRSG 453 Senior Concentration in Maternal Child Health (6)
  - Prerequisites: NRSG 353, NRSG 361, and GERN 400, or consent of instructor. Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

- NRSG 454 Senior Concentration in Selected Populations (6)
  - Prerequisites: NRSG 353 and NRSG 402, or consent of instructor. Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

Criminal background check, health insurance, immunizations, medical clearance, and malpractice insurance are required for clinical coursework.

To be recommended to the California Board of Registered Nursing (BRN) to take the licensure exam as a Registered Nurse, students must successfully complete the RN Prelicensure Exit Assessment. The results of this assessment will not impact the conferring of the bachelor's degree.

**Bachelor of Science in Nursing – Registered Nurse (120 units)**

**Admission**

Registered Nurse Applicants are required to apply for admission to the University and do the following:

1. Hold a current license or be eligible for license to practice in California;
2. Graduation from an Accredited Associate Degree program or evaluation of diploma program for equivalency by an Accredited Associate Degree program;
3. Have 56 to 70 transferable units including statistics and chemistry (Chemistry 140 preferred);
4. Maintain malpractice and health insurance throughout clinical coursework and submit to a criminal background check;
5. Attend a group counseling session for RN students and complete the RN application form;
6. Submit official transcripts of any previous college work to the School of Nursing;
7. Fulfill the Graduation Writing Assessment Requirement (GWAR) either prior to admission or within the first semester in the program.

Graduates of diploma schools of nursing are urged to seek information/admission to a community college that offers the opportunity to earn academic credit for a diploma nursing program.

Requirements
Prerequisites: Satisfactory completion of an undergraduate statistics course suitable for general education math credit and a inorganic, organic, and/or biochemistry course (CHEM 140 or combined 5 units chemistry course is preferred).

Take all of the following:
NRSG 305 Pathophysiology for Nurses (3)
Prerequisites: Admission to the School of Nursing or consent of instructor. Corequisites: NRSG 200, NRSG 302 and NUTR 339.
NRSG 309 Dimensions of Professional Nursing (2)
Prerequisites: Basic Student: Admission to the ADN to BSN program. Support courses: CHEM 140, NRSG 305.
NRSG 312 Health Assessment (3)
Prerequisites: Basic students: NRSG 200, NRSG 302, NRSG 305, and NUTR 339, or consent of instructor. RN to BSN students: NRSG 309 or consent of instructor.
Corequisites: Basic students: NRSG 250 and NRSG 321, or consent of instructor.
NRSG 402 Community Health Nursing (6)
Prerequisites: NRSG 331, NRSG 341, and GERN 400 or consent of instructor; for RNs NRSG 305, NRSG 312, or consent of instructor. Corequisites: NRSG 353 and NRSG 361, or consent of instructor.
NRSG 450 Nursing Research (3)
Prerequisites: NRSG 353, NRSG 361, and NRSG 402 or consent of instructor. Corequisites: NRSG 452 or NRSG 453 or NRSG 454, NRSG 456 and NRSG 458.
NRSG 456 Health Care Delivery Systems and Nursing Leadership (3)
Prerequisites: Basic students: NRSG 353, NRSG 361, and NRSG 402, or consent of instructor.
Corequisites: NRSG 452 or NRSG 453 or NRSG 454, or consent of instructor.

Take one of the following:
NRSG 452 Senior Concentration in Critical Care (6)
Prerequisites: Basic students: NRSG 353, NRSG 361, and NRSG 402, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.
NRSG 453 Senior Concentration in Maternal Child Health (6)
Prerequisites: Basic students: NRSG 353, NRSG 361, and GERN 400, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.
NRSG 454 Senior Concentration in Selected Populations (6)
Prerequisites: Basic students: NRSG 353 and NRSG 402, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.

Up to 21 units will be awarded by examination for demonstration of prior learning by passing the CA NCLEX Examination.

Course of Study
A specific combination of general education, prerequisites, nursing and elective courses totaling 120 units for the basic program and the R.N. program are required for graduation. All nursing courses in the nursing program must be taken in sequence. Admission to the first course is by application which will be accepted upon successful attainment of the criteria listed above. The last date to file applications for each semester will be available in the School of Nursing. Progress in the nursing major requires that students maintain a cumulative 2.0 GPA on all units attempted and attain a minimum of a "C" grade in each of the nursing courses as well as all required support courses. The student who earns less than a grade of "C" must repeat that course prior to being admitted to the next course in the nursing course sequence. A nursing course may be repeated one time. A break in the sequence of nursing courses necessitates readmission on a space-available basis.

Graduate Programs

Master of Science in Nursing
This degree is available to qualified students who desire advanced studies. The program is approved by the Board of Registered Nursing, and accredited by the Commission on Collegiate Nursing Education (1 Dupont Circle, NW, Suite 530, Washington, DC, 20036-1120, phone: 202-887-6791).
A Master of Science (MS) degree in Nursing is offered for the following specialties: Nurse Practitioner (Adult-Gerontology Acute Care, Adult-Gerontological Primary Care, Family, Pediatric Primary Care, Psychiatric-Mental Health, and Women's Health).

Nurse Practitioner Concentration
Specialty Areas: Family, Pediatric Primary Care, Adult-Gerontological Primary Care, Women's Health, Psychiatric-Mental Health (Across the lifespan), and Adult-Gerontology Acute Care.

Prerequisites
1. A bachelor's degree in nursing preferred: A bachelor's degree in a related field will be considered;
2. Current unrestricted license to practice as a registered nurse in California;
3. Admission to graduate standing in nursing at the University;
4. A college level course in statistics;
5. A physical assessment course which includes clinical practice, must have been taken within last five years;
6. An upper division or graduate level course in pathophysiology;
7. An upper division community health nursing course with lab for non-BSN applicants;
8. An overall GPA of 3.0 or better in the undergraduate program.
9. Graduate Record Exam (GRE) Analytical Writing

Up to 21 units will be awarded by examination for demonstration of prior learning by passing the CA NCLEX Examination
Section only at a score 4.0 to be completed prior to the application. Results to be sent to the School of Nursing (SON) at CSULB, and a copy attached with the SON application. The GRE must have been completed within 5 years of the SON application.

**Advancement to Candidacy**

1. Satisfy the general University requirements for advancement to candidacy;
2. Completion of all undergraduate deficiencies;
3. Approval of the school graduate director and Associate Dean of the College of Health and Human Services.

**Requirements**

1. Completion of a minimum of 30-47 units in approved upper division and graduate courses;
2. An overall GPA of 3.0 or better.

**Core Courses**

For all Nurse Practitioner specialties, take the following courses:

- **NRSG 510 Advanced Pathophysiology for Advanced Practice Nursing** (3)
  - Prerequisites: Admission to the graduate nursing program and completion of upper division pathophysiology course, or consent of instructor.

- **NRSG 520 Advanced Pharmacology for Advanced Practice Nursing** (3)
  - Prerequisites: Admission to the graduate nursing program, or consent of instructor.

- **NRSG 530 Advanced Physical Assessment for Advanced Practice Nursing** (2)
  - Prerequisites: Admission to the graduate nursing program and completion of basic physical assessment course, or consent of instructor. Corequisites: NRSG 530L.

- **NRSG 530L Advanced Physical Assessment Laboratory for Advanced Practice Nurses** (1)
  - Prerequisites: Admission to graduate program or consent of instructor. Corequisites: NRSG 530.

- **NRSG 540 Health Care Economics, Policy, and Management for Advanced Practice Nursing** (2)
  - Prerequisites: Admission to the graduate nursing program, or consent of instructor.

- **NRSG 550 Human Diversity and Psychosocial Issues in Health Care for Advanced Practice Nursing** (2)
  - Prerequisites: Admission to the graduate nursing program, or consent of instructor.

- **NRSG 560 Foundations of Theoretical and Professional Roles in Advanced Practice Nursing** (2)
  - Prerequisites: Admission to the graduate nursing program, or consent of instructor.

- **NRSG 596 Research for Advanced Nursing Practice** (3)
  - Prerequisites: Admission to the graduate nursing program, or consent of instructor.

For Pediatric Primary Care Nurse Practitioner specialty only, take the following courses in lieu of NRSG 530:

- **NRSG 535 Advanced Pediatric Physical Assessment and Health Promotion** (2)
  - Prerequisites: Admission to the Pediatric Primary Care nurse practitioner program or school nurse credential program or consent of the instructor. Corequisites: NRSG 535L.

- **NRSG 535L Advanced Pediatric Physical Assessment Laboratory** (1)
  - Prerequisites: Admission to the Pediatric Primary Care nurse practitioner program or school nurse credential program or consent of the instructor. Corequisites: NRSG 535.

**Specialty Courses**

**Adult-Gerontological Acute Care Nurse Practitioner Specialty**

**Adult-Gerontological Acute Care Nurse Practitioner Theory Courses:**

- **NRSG 660: Adult-Gerontological Acute Care Theories for Advanced Practice Nursing I** (3)
  - Prerequisites: Admission to AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, 596 or consent of instructor. Corequisites: NRSG 660A, 660B.

- **NRSG 661: Adult-Gerontological Acute Care Theories for Advanced Practice Nursing II** (3)
  - Prerequisites: Admission to AGACNP program and NRSG 660, NRSG 660A, NRSG 660B, or consent of instructor. Corequisites: NRSG 661A, NRSG 661B.

**Adult-Gerontological Acute Care Nurse Practitioner Clinical Courses:**

- **NRSG 660A: Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing I (3)**
  - Prerequisites: Admission to AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 or consent of instructor. Corequisites: NRSG 660A, NRSG 660B.

- **NRSG 660B: Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing II** (3)
  - Prerequisites: Admission to AGACNP program and NRSG 660, NRSG 660A, NRSG 660B, or consent of instructor. Corequisites: NRSG 661, NRSG 661B.

- **NRSG 661A: Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing III** (3)
  - Prerequisites: Admission to AGACNP program and NRSG 660, NRSG 660A, NRSG 660B, or consent of instructor. Corequisites: NRSG 661, NRSG 661B.

- **NRSG 661B Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing IV** (3)
  - Prerequisites: Admission to AGACNP program and NRSG 660, NRSG 660A, NRSG 660B, or consent of instructor.

**Adult-Gerontological Primary Care Nurse Practitioner Specialty**

**Adult-Gerontological Primary Care Nurse Practitioner Theory Courses:**

- **NRSG 630 Adult-Geriatric Theories for Advanced Practice Nursing** (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or departmental consent required. Corequisites: NRSG 630A, NRSG 630B.

- **NRSG 631 Adult-Geriatric Theories for Advanced Practice Nursing II** (3)
  - Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required. Corequisites: NRSG 631A, NRSG 631B.

**Adult-Gerontological Primary Care Nurse Practitioner Clinical Courses:**

- **NRSG 630A Adult-Geriatric Clinical Studies in Advanced Practice Nursing I** (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or departmental consent required. Corequisites: NRSG 630, NRSG 630B.

- **NRSG 630B Adult-Geriatric Clinical Studies in Advanced Practice Nursing II** (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540,
NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or consent of instructor.
Corequisites: NRSG 630, NRSG 630A.

NRSG 631A Adult-Geriatric Clinical Studies in Advanced Practice Nursing III (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631B.

NRSG 631B Adult-Geriatric Clinical Studies in Advanced Practice Nursing IV (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631A.

Family Nurse Practitioner Specialty

Family Nurse Practitioner Theory Courses:
NRSG 620 Family Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or consent of instructor. Corequisites: NRSG 620A, NRSG 620B.

NRSG 621 Family Theories for Advanced Practice Nursing II (3)
Prerequisites:NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor. Corequisites: NRSG 621A, NRSG 621B.

Family Nurse Practitioner Clinical Courses:
NRSG 620A Family Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or consent of instructor. Corequisites: NRSG 620, NRSG 620B.

NRSG 620B Family Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 620, NRSG 620A.

NRSG 621A Family Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor. Corequisites: NRSG 621, NRSG 621B.

NRSG 621B Family Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor. Corequisites: NRSG 621, NRSG 621A.

Pediatric Primary Care Nurse Practitioner Specialty

Pediatric Nurse Practitioner Theory Courses:
NRSG 650 Pediatric Theories for Advanced Practice Nursing I (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 535, NRSG 535L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596. Corequisites: NRSG 650A and NRSG 650B.

NRSG 651 Pediatric Theories for Advanced Practice Nursing II (3)
Prerequisites: NRSG 650, NRSG 650A, NRSG 650B. Corequisites: NRSG 651A and NRSG 651B.

NRSG 652 Pediatric Theories for Advanced Practice Nursing III (3)
Prerequisites: NRSG 651, NRSG 651A, NRSG 651B. Corequisites: NRSG 652A.

Pediatric Primary Care Nurse Practitioner Clinical Courses:
NRSG 650A Pediatric Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 535, NRSG 535L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596 or consent of instructor. Corequisites: NRSG 650 and NRSG 650B.

NRSG 650B Pediatric Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 535, NRSG 535L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596 or consent of instructor. Corequisites: NRSG 650 and NRSG 650A.

NRSG 651A Pediatric Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B. Corequisites: NRSG 651 and NRSG 651A.

NRSG 651B Pediatric Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B. Corequisites: NRSG 651 and NRSG 651A.

NRSG 652A Pediatric Clinical Studies for Advanced Practice Nursing V (3)
Prerequisites: NRSG 651, NRSG 651A, NRSG 651B. Corequisites: NRSG 652.

Psychiatric-Mental Health Nurse Practitioner (Across the Life Span) Specialty

Psychiatric-Mental Health Nurse Practitioner (Across the Life Span) Theory Courses:
NRSG 640 Psychiatric-Mental Health Theory Across the Lifespan for Advanced Practice Nursing I (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisite(s): Corequisite: NRSG 640A, NRSG 643.

NRSG 641 Psychiatric-Mental Health Theory for Adults and Elderly for Advanced Practice Nursing III (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, & NRSG 643, or consent of instructor.
Corequisite: NRSG 641A & NRSG 641B.

NRSG 642 Psychiatric-Mental Health Theory for Children and Adolescents for Advanced Practice Nursing IV (3)
Prerequisites: Admission to PMHNP program and NRSG 641, NRSG 641A, NRSG 641B or consent of instructor.
Corequisites: NRSG 642A, NRSG 642B.

NRSG 643 Advanced Psychopharmacology for Psychiatric-Mental Health Theory Across the Lifespan for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 640, NRSG 640A, NRSG 640B.

Psychiatric-Mental Health Nurse Practitioner (Across the Lifespan) Clinical Courses:
NRSG 640A Psychiatric-Mental Health Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 640, NRSG 643.

NRSG 641A Psychiatric-Mental Health Clinical Studies for Adults for Advanced Practice Nursing IV (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor. Corequisite: NRSG 641A & NRSG 641B.
Elderly for Advanced Practice Nursing V (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor.
Corequisite: NRSG 641 & NRSG 641A.

NRSG 642A Psychiatric-Mental Health Clinical Studies for Children for Advanced Practice Nursing IV (3)
Prerequisites: Admission to the PMHNP program and completion of NRSG 641, NRSG 641A and NRSG 641B, or consent of instructor. Corequisites: NRSG 642, NRSG 642B.

NRSG 642B Psychiatric-Mental Health Clinical Studies for Adolescents for Advanced Practice Nursing V (3)
Prerequisites: Admission to the PMHNP program and completion of NRSG 641, NRSG 641A and NRSG 641B, or consent of instructor. Corequisites: NRSG 642, NRSG 642A.

Women's Health Nurse Practitioner Specialty
Women’s Health Nurse Practitioner Theory Courses:
NRSG 610 Women's Health Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 610A, NRSG 610B.

NRSG 611 Women's Health Theories for Advanced Practice Nursing II (3)
Prerequisites: Admission to the graduate nursing program. and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor. Corequisites: NRSG 611A, NRSG 611B.

NRSG 612 Women's Health Theories for Advanced Practice Nursing III (3)
Prerequisites: NRSG 611, NRSG 611A, NRSG 611B. Corequisite: NRSG 612A.

Women's Health Nurse Practitioner Clinical Courses:
NRSG 610A Women's Health Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 610, NRSG 610B.

NRSG 610B Women's Health Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to the graduate nursing program in the women's health nurse practitioner specialty and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor. Corequisites: NRSG 610, NRSG 610A.

NRSG 611A Women's Health Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor. Corequisites: NRSG 611, NRSG 611B.

NRSG 611B Women's Health Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor. Corequisites: NRSG 611, NRSG 611A.

NRSG 612A. Women's Health Clinical Studies for Advanced Practice Nursing V (3)
Prerequisites: Admission to the graduate nursing program, NRSG 611, NRSG 611A, and NRSG 611B. Corequisite: NRSG 612.

For all Nurse Practitioner specialties:
Take one of the following culminating courses:
NRSG 692 Nursing Directed Project (1-3)
Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596 and consent of school graduate advisor.
NRSG 695 Professional Literature (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 530 or NRSG 535, NRSG 530L or NRSG 535L, NRSG 540, NRSG 550, NRSG 560, NRSG 596, theory and clinical course series for one of the Nurse Practitioner or CNS specialties, and advancement to candidacy, or consent of instructor and graduate advisor.

NRSG 698 Thesis (1-3) (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)
Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596, consent of school graduate advisor.

Nursing and Health Systems Executive Management Concentration

Prerequisites
1. A bachelor's degree in nursing preferred: A bachelor's degree in a related field will be considered;
2. Current unrestricted license to practice as a registered nurse in California;
3. Admission to graduate standing in nursing at the University;
4. A college level course in statistics;
5. An upper division public health nursing course with lab for non-BSN applicants;
6. An overall GPA of 3.0 or better in the undergraduate program.
7. Graduate Record Exam (GRE) Analytical Writing Section only at a score 4.0 to be completed prior to the application. Results to be sent to the School of Nursing (SON) at CSULB, and a copy attached with the SON application. The GRE must have been completed within 5 years of the SON application.

Advancement to Candidacy
1. Satisfy the general University requirements for advancement to candidacy;
2. Completion of all undergraduate deficiencies;
3. Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
4. Approval of the school graduate director and Associate Dean of the College of Health and Human Services.

Requirements
1. Completion of a minimum of 30 units in approved upper division and graduate courses;
2. An overall GPA of 3.0 or better.

Core Courses
For Nursing and Health systems Executive Management Administration Concentration, take the following courses:
HCA 515 Advanced Financial Management in Healthcare (3).
Prerequisites: ACCT 201 or ACCT 500; HCA 502; Health Care Administration majors only.

NRSG 559 Foundations for Nursing and Health Systems Executive Management (3)
Prerequisites: None.
NRSG 596 Research for Advanced Nursing Practice (3)
Prerequisites: Admission to the graduate nursing program and upper division statistics, or consent of instructor.

Nursing and Health Systems Executive Management Theory Courses:
NRSG 676 Organizing and Structuring Optimal Healing Environments (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 676L
NRSG 677 Human Resources and Professional Relationships in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 677L.
NRSG 678 Continuous Quality Improvement in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 678L.
NRSG 679 Nursing and Health Systems Governance and Population-Based Care Delivery (3)
Prerequisites Admission to the NHSEM program, NRSG 559

Nursing and Health Systems Executive Management Administration Clinical Courses:
NRSG 676L Practicum In Organizing and Structuring Optimal Healing Environments (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 676.
NRSG 677L Practicum In Human Resources and Professional Relationships In Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 677.
NRSG 678L Practicum In Continuous Quality Improvement in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 678.
NRSG 693 Executive Management Project (3)
Prerequisites: Advancement to candidacy and completion of 21 graduate units.

Graduate Certificate in Nursing Education

The Nursing Education Certificate Program consists of 18-19 units of specific coursework that prepares nurses who have completed a Master of Nursing degree to be effective educators in either a health care service agency, a community, and/ or an academic setting. Students will develop both theoretical and practical expertise in the educational field. The Certificate in Nursing Education can be completed concurrently with a Master's Degree or separately as a post-master's certificate.

Admission
1. Application to CSULB for the Post-Master’s Certificate
2. Current unrestricted license as a registered nurse
3. Graduate standing in a Nursing Master’s program or completed Master’s degree in Nursing from an accredited institution

Requirements
Core (13 units):
Take all of the following courses:
NRSG 556A Conditions of Learning and Instruction in Nursing (3)
Prerequisite: None
NRSG 556B Curriculum Development in Nursing (3)
Prerequisite: None
NRSG 556C Microteaching in Nursing (3)
Prerequisites: Graduate standing; NRSG 556A and NRSG 556B
NRSG 556L Theoretical Concepts in Nursing Education: Proactive Teaching (4)
Prerequisite: NRSG 556A or consent of instructor
Two electives (5-6 units) selected in consultation with the coordinator such as:
ETEC 535, ETEC 510, ETEC 525, ETEC 551, ETEC 570
NRSG 502, NRSG 551A, NRSG 551B, NRSG 559

Graduate Certificate Nurse Practitioner

This certificate is awarded to students who complete 32-38 units of post-masters course work in one of the Nurse Practitioner specialty areas. Applications from students who hold a masters degree in nursing as a nurse practitioner will be reviewed individually.

This certificate program is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

Prerequisites
1. Copies of transcripts of Baccalaureate in Nursing and Masters in Nursing degrees.
2. Copy of unrestricted State of California RN licensure.
3. Three letters/checklists of references
4. Completion of the School of Nursing Graduate Program Application and university application.

Requirements
1. Completion of a minimum of 32-38 units in approved upper division and graduate courses;
2. An overall GPA of 3.0 or better.

Core Courses
For all Certificate in Nurse Practitioner specialties, take the following courses:
NRSG 510 Advanced Pathophysiology for Advanced Practice Nursing (2)
Prerequisites: Admission to the graduate nursing program and completion of upper division pathophysiology course, or consent of instructor.
NRSG 520 Advanced Pharmacology for Advanced Practice Nursing (3)
Prerequisites: Admission to the graduate nursing program, or consent of instructor.
NRSG 540 Health Care Economics, Policy, and Management for Advanced Practice Nursing (2)
Prerequisites: Admission to graduate nursing program or consent of instructor.
NRSG 550 Human Diversity and Psychosocial Issues in Health Care for Advanced Practice Nursing (2)
Prerequisites: Admission to graduate nursing program or consent of instructor.
NRSG 560 Foundations of Theoretical and Professional Roles for Advanced Practice Nurses (2)
Prerequisites: Admission to graduate nursing program or
### Specialty Courses

#### Family Nurse Practitioner Specialty

**Family Nurse Practitioner Theory Courses:**
- NRSG 620 Family Theories for Advanced Practice Nursing I (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535. Corequisites: NRSG 620, NRSG 620A, and NRSG 620B.
- NRSG 620B Family Clinical Studies for Advanced Practice Nursing II (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535. Corequisites: NRSG 620, NRSG 620A, and NRSG 620B.
- NRSG 621A Family Clinical Studies for Advanced Practice Nursing III (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535. Corequisites: NRSG 620, NRSG 620A, and NRSG 620B.
- NRSG 621B Family Clinical Studies for Advanced Practice Nursing IV (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535. Corequisites: NRSG 620, NRSG 620A, and NRSG 620B.

**Pediatric Primary Care Nurse Practitioner Specialty**

**Pediatric Primary Care Nurse Practitioner Theory Courses:**
- NRSG 650 Pediatric Theories for Advanced Practice Nursing I (3)
  - Prerequisites: NRSG 510, NRSG 520, NRSG 535, and NRSG 535L. Corequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 651 Pediatric Theories for Advanced Practice Nursing II (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 652 Pediatric Theories for Advanced Practice Nursing III (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.

**Pediatric Primary Care Nurse Practitioner Clinical Courses:**
- NRSG 650A Pediatric Clinical Studies for Advanced Practice Nursing I (3)
  - Prerequisites: NRSG 510, NRSG 520, NRSG 535, and NRSG 535L. Corequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 650B Pediatric Clinical Studies for Advanced Practice Nursing II (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 651A Pediatric Clinical Studies for Advanced Practice Nursing III (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 651B Pediatric Clinical Studies for Advanced Practice Nursing IV (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.
- NRSG 652A Pediatric Clinical Studies for Advanced Practice Nursing V (3)
  - Prerequisites: NRSG 650, NRSG 650A, and NRSG 650B.

**Adult-Gerontological Primary Care Nurse Practitioner Specialty**

**Adult-Gerontological Primary Care Nurse Practitioner Theory Courses:**
- NRSG 630 Adult-Gerontological Primary Care Theories for Advanced Practice Nursing I (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535L. Corequisites: NRSG 630, NRSG 630A, and NRSG 630B.
- NRSG 631 Adult-Gerontological Primary Care Theories for Advanced Practice Nursing II (3)
  - Prerequisites: NRSG 630, NRSG 630A, and NRSG 630B.

**Adult-Gerontological Primary Care Nurse Practitioner Clinical Courses:**
- NRSG 630A Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing I (3)
  - Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, and NRSG 535L. Corequisites: NRSG 630, NRSG 630A, and NRSG 630B.
NRSG 630B Adult-Gerontological Primary Care
Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or consent of instructor.
Corequisites: NRSG 630, NRSG 630A.

NRSG 631A Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631B.

NRSG 631B Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631A.

Psychiatric-Mental Health Nurse Practitioner Specialty

Psychiatric-Mental Health Nurse Practitioner Theory Courses:
NRSG 640 NRSG 640A. Psychiatric-Mental Health Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisite(s): Corequisite: NRSG 640A, NRSG 643.

NRSG 641 Psychiatric-Mental Health Theory for Adults and Elderly for Advanced Practice Nursing (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, & NRSG 643, or consent of instructor.
Corequisite: NRSG 641A & NRSG 641B.

Psychiatric-Mental Health Nurse Practitioner Clinical Courses:
NRSG 640B Psychiatric-Mental Health Across the Lifespan Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 640, NRSG 643.

NRSG 640B Psychiatric-Mental Health Clinical Studies Across the Life Span for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 640, NRSG 640A.

NRSG 641A Psychiatric-Mental Health Clinical Studies for Adults for Advanced Practice Nursing IV (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor.
Corequisite: NRSG 641 & NRSG 641B.

NRSG 641B Psychiatric-Mental Health Clinical Studies for Elderly for Advanced Practice Nursing V (3)
Prerequisites: Admission to PMHNP program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor.
Corequisite: NRSG 641 & NRSG 641A.

Women's Health Nurse Practitioner Specialty

Women's Health Nurse Practitioner Theory Courses:
NRSG 610 Women's Health Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610A, NRSG 610B.

NRSG 611 Women's Health Theories for Advanced Practice Nursing II (3)
Prerequisites: Admission to the graduate nursing program, and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611A, NRSG 611B.

NRSG 612 Women's Health Theories for Advanced Practice Nursing III (3)
Prerequisites: NRSG 611, NRSG 611A, NRSG 611B.
Corequisite: NRSG 612A.

Women's Health Nurse Practitioner Clinical Courses:
NRSG 610A Women's Health Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to the graduate nursing program in the women's health nurse practitioner specialty and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610, NRSG 610B.

NRSG 610B Women's Health Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program in the women's health nurse practitioner specialty and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610, NRSG 610A.

NRSG 611A Women's Health Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611, NRSG 611B.

NRSG 611B Women's Health Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: Admission to graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611, NRSG 611A.

NRSG 612A Women's Health Clinical Studies for Advanced Practice Nursing V (3)
Prerequisites: Admission to the graduate nursing program, NRSG 611, NRSG 611A, and NRSG 611B. Corequisite: NRSG 612.

Doctor of Nursing Practice Program

The Doctorate of Nursing Practice is offered through the Southern California CSU DNP Consortium including the campuses of CSU Fullerton, CSU Long Beach, and CSU Los Angeles. The DNP is a professional practice degree designed to prepare advanced practice nurses for complex practice and leadership roles in the clinical setting as well as teaching roles at California's community colleges and at the California State University. Students admitted into the program will be able to draw on faculty expertise across three large institutions. Speciality areas include: Anesthesia, Clinical Nurse Specialist, Management/Administration/Leadership, Midwifery, Nurse Practitioner, and Community Health Nursing.

The DNP program is a rigorous academic experience designed to prepare nurses to assume the highest levels of nursing professional practice. In addition to developing advanced competencies in evidence-based practice, leadership, health policy and advocacy, graduates will develop in-depth skills in a focused area of nursing practice. Students will complete a total of 1,000 clinical hours in
practicum experience. Enrollment for this joint CSU program is through CSU Fullerton. Consult the CSU Fullerton catalog for admission procedures and requirements, course descriptions and degree requirements.

Courses (NRSG)

LOWER DIVISION

199. Special Topics (3)
Overview of health care professions with a primary focus on the nursing profession, including, nursing history, educational preparation and the roles of nurses, ethics, patients’ and nurses’ Bill of Rights, medical terminology and math for health care professions.
Letter grade only (A-F). Course fee may be required.

200. Foundations of Professional Nursing (6)
Prerequisites: Admission to the Nursing program. Proof of clinical safety compliance must be presented to the School of Nursing office prior to the first day of classes for permission to register. Go to the School of Nursing Undergraduate Handbook located at www.csulb.edu/colleges/chhs/departments/nursing/ for compliance details.
Corequisites: NRSG 302, NRSG 305, and NUTR 339, or consent of instructor.
Support Courses: SOC 100 or PSY 100.
Introduction to physical and social science principles which provide basis for beginning level nursing theory and practice within the framework of nursing process, self care, and evidence based practice. Guided utilization of theory and skill in a clinical laboratory.
Letter grade only (A-F). Course fee may be required. (Lecture-discussion 3 hours, laboratory 9 hours)

250. Intermediate Medical Surgical Nursing (6)
Prerequisites: NRSG 200, NRSG 302, NRSG 305 and NUTR 339, or consent of instructor.
Corequisites: NRSG 312 and NRSG 321, or consent of instructor.
Support Courses: SOC 100 or PSY 100.
Application of recognized physical and social science principles and current research findings to intermediate level nursing theory. Guided laboratory experience to assist in gaining skills in application of selected nursing process activities in simulation and in direct patient care.
Letter grade only (A-F). Course fee may be required. (Lecture-discussion 3 hours, laboratory 9 hours)

260. Older Adult Health Care (4)
Prerequisites: NRSG 200, NRSG 302, NRSG 305, NUTR 339, or consent of instructor. Proof of clinical safety compliance must be presented to the School of Nursing office prior to the first day of classes for permission to register. Go to the School of Nursing Undergraduate Handbook located at www.csulb.edu/colleges/chhs/departments/nursing/ for compliance details.
Corequisites: NRSG 250, NRSG 312, or consent of instructor.
Support Courses: SOC 100 or PSY 100.
Study of unique needs of aging population. Focus on health promotion and delivery of care. Application of nursing process and evidence based practice in caring for aging clients in a variety of settings.
Letter grade only (A-F). (Lecture-discussion 2 hours, laboratory 6 hours) Course fee may be required.

UPPER DIVISION

302. Foundations of Clinical Pharmacology (2)
Prerequisites: BIOL 207, BIOL 208, CHEM 140, BIOL 201/MICR 200 or consent of instructor.
Corequisites: NRSG 200, NRSG 305 and NUTR 339.
Systematic study of medications used for major body system disorders, their pharmacologic and therapeutic classifications, modes of action, dosage, routes of administration, contraindications and toxic effects. Special emphasis is placed on clinical nursing implications and patient teaching.
Letter grade only (A-F).

305. Pathophysiology for Nurses (3)
Prerequisite: Admission to the School of Nursing or consent of instructor.
Corequisites: NRSG 200, NRSG 302, and NUTR 339.
Study of the pathogenesis with an emphasis on pathophysiological processes, understanding disease trajectory and interventions to limit disease progression. The nurses’ role in reducing morbidity and mortality and communicating with patients regarding the pathology of their illness will be covered.
Letter grade only (A-F). (Lecture-Discussion 3 hours) Not open for credit to students with credit in BIOL 304.

309. Dimensions of Professional Nursing (2)
Prerequisite: Admission to the ADN to BSN program.
Support courses: CHEM 140, NRSG 305.
Focuses on analysis of transition from a technical to a professional baccalaureate prepared nurse. Content includes: program and University orientation, role changes, ethics, dimensions of nursing, and training in completion of a research based paper and presentation.
Letter grade only (A-F). (Lecture-Discussion) Course fee may be required.

312. Health Assessment (3)
Prerequisite: Admission to the ADN to BSN program.
Corequisites: NRSG 250 and NRSG 312, or consent of instructor.
Support Courses: SOC 100 or PSY 100.
Provides opportunity to learn and apply techniques of history taking and physical examination which are used by nurses in identification of patient problems. Includes demonstration and practice of physical assessment methodology.
Letter grade only (A-F). (Lecture-discussion 3 hours) Not open for credit to students with credit in BIOL 304.

321. Health Care of the Childbearing Family (6)
Prerequisites: NRSG 200, NRSG 302, NRSG 305, and NUTR 339, or consent of instructor.
Corequisites: NRSG 250 and NRSG 312, or consent of instructor.
Satisfactory level ATI testing including remediation as appropriate.
Theor of obstetric, gynecologic and family health is explored within the context of cultural, psychosocial influences, and evidence based practice.
Letter grade only (A-F). Not open to students with credit in NRSG 372. (Lecture-discussion 3 hours, laboratory 9 hours) Course fee may be required.
331. Advanced Acute Care Nursing (5)
Prerequisites: NRSG 250, NRSG 312 and NRSG 321 or consent of instructor.
Corequisites: NRSG 341 and GERN 400, or consent of instructor.
Satisfactory level ATI testing including remediation as appropriate.
Advanced study of complex acute conditions. Integration of theoretical knowledge and clinical applications to provide comprehensive evidence based nursing care to diverse populations of patients and families in a variety of acute care settings including medical-surgical and critical care units.
Letter grade only (A-F). (Lecture-discussion 2 hours, Lab 9 hours) Course fee may be required.

341. Psychiatric/Mental Health Nursing (6)
Prerequisites: PSY 100, SOC 100, NRSG 250, NRSG 312, NRSG 321 or consent of instructor.
Corequisites: NRSG 331, GERN 400 or consent of instructor.
Satisfactory level ATI testing including remediation as appropriate.
Application and integration of evidence based care for clients with psychiatric mental health challenges, including psychosocial concepts, cultural, ethical, and legal influences; and wellness of individuals and family groups. Development of professional role in psychiatric/mental health nursing.
Letter grade only (A-F). (Lecture-discussion 3 hours, Lab 9 hours) Course fee may be required.

353. Legal Aspects of Health Care (2)
Prerequisites: NRSG 331, NRSG 341, and GERN 400, or consent of instructor.
Corequisites: NRSG 361 and NRSG 402, or consent of instructor.
Presents legal duties and responsibilities of nurses in delivery of health care services. Professional licensure regulations, scope of nursing practice, and ethical issues related to nursing practice are emphasized.
Letter grade only (A-F). Course fee may be required.

361. Child Health Care (6)
Prerequisites: NRSG 331, NRSG 341, and GERN 400, or consent of instructor.
Corequisites: NRSG 353 and NRSG 402, or consent of instructor.
Satisfactory level ATI testing including remediation as appropriate.
Foundational basis of care for pediatric patients from birth to adolescence based on developmental theory and evidence based practice. Assessment of physical, psychological, and cultural issues while planning, implementing, and evaluating age appropriate nursing care for well and ill children.
Letter grade only (A-F). (Lecture-discussion 3 hours, Lab 9 hours) course fee may be required.

402. Community Health Nursing (6)
Prerequisites: NRSG 331, NRSG 341, and GERN 400, or consent of instructor.
Corequisites: NRSG 353 and NRSG 305, NRSG 312, or consent of instructor.
Focuses on diverse aggregates and populations to impact health and/or quality of life as it relates to individuals/families, populations, and systems. Emphasis on prevention and the greater good of the community/population, including disaster.
Letter grade only (A-F). (Lecture discussion 4 hours, 9 hours lab) Course fee may be required.

450. Nursing Research (3)
Prerequisites: NRSG 353, NRSG 361, and NRSG 402 or consent of instructor.
Corequisites: NRSG 452 or NRSG 453 or NRSG 454, NRSG 456 and NRSG 458.
Emphasizes application of research theory to evidence-based nursing practice, including ethics in nursing research and research process.
Letter grade only (A-F). (Lecture-Discussion) Course fee may be required.

451. Nursing Leadership and Management (2)
Prerequisites: NRSG 400, NRSG 402.
Corequisites: NRSG 450, NRSG 452 or NRSG 453 or NRSG 454. Satisfactory level ATI testing including remediation as appropriate.
Principles of leadership and management as they apply to front line management positions in healthcare. Emphasis understanding role and responsibilities of professional nurse as leader and manager of patient care services within a variety of settings.
Letter grade only (A-F). (Lecture-Discussion). Not open for credit to students with credit in NRSG 450L. Course fee may be required.

452. Senior Concentration in Critical Care (6)
Prerequisites: NRSG 353, NRSG 361, and NRSG 402, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.
Provides advanced theoretical concepts and clinical experiences in critical care arenas with application of management/leadership theories to selected populations. Integration of evidence-based practice and critical care nursing knowledge requisite to professional roles will be the focus of this course.
Letter grade only (A-F). Course fee may be required. Students are to complete 180 clinical hours to obtain credit for the clinical portion of the class.

453. Senior Concentration in Maternal Child Health (6)
Prerequisites: NRSG 353, NRSG 361, and GERN 400, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.
Provides advanced theoretical concepts and clinical experiences in maternal child nursing in select populations. Provides opportunities to integrate evidence based practice and maternal child nursing knowledge critical to new professional roles.
Letter grade only (A-F). Course fee may be required. Students are to complete 180 clinical hours to obtain credit for the clinical portion of the class.

454. Senior Concentration in Selected Populations (6)
Prerequisites: NRSG 353 and NRSG 402, or consent of instructor.
Corequisites: NRSG 450, NRSG 456, and NRSG 458, or consent of instructor. Satisfactory level ATI testing including remediation as appropriate.
Provides advanced theoretical concepts and clinical experiences in a variety of nursing specialties with application of management/leadership theories to select populations. Integration of evidence based practice and nursing knowledge critical to new professional roles.
Letter grade only (A-F). Course fee may be required. Students are to complete 180 clinical hours to obtain credit for the clinical portion of the class.

456. Health Care Delivery Systems and Nursing Leadership (3)
Prerequisites: NRSG 353, NRSG 361, and NRSG 402, or consent of instructor.
Corequisites: NRSG 450, NRSG 452 or NRSG 453 or NRSG 454, or consent of instructor.
Study of how politics, economics, ethics, societal needs, and international issues impact the American healthcare system. Advocacy, organizational management and leadership theories and models are analyzed as they relate to the role of the baccalaureate nurse in healthcare delivery.
Not open to students with credit in NRSG 400. Letter grade only (A-F). Course fee may be required.
458. NCLEX-RN Preparatory Course (1)
Prerequisites: NRSG 361, NRSG 402, and NRSG 352.
Corequisites: NRSG 450, 456 and NRSG 452 or NRSG 453 or NRSG 454.
Provides the student with competencies and strategies to enhance transition from student to baccalaureate prepared nurse. Students gain understanding of the role of the National Council of State Boards of Nursing (NCSBN) in developing and administering the RN licensing examination.
Credit/No Credit grading only. Credit reflects work at the level of "B" or better.

481. Parenting (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.
Effective parenting with emphasis on common parenting concerns and developmental tasks of parents and children.
Course fee may be required.

482. Health Assessment of the Aging Client (3)
Prerequisites: GERN 400 or equivalent and upper standing or consent of instructor.
Assessment of physical, psycho-social status of aging client as they affect health and well being, and identification of actual or potential health related problems using a variety of tools and techniques.
Same course as GERN 482. Not open for credit to students with credit in GERN 482. (Lecture-Discussion, 3 hrs.)

490. Independent Study (1-3)
Prerequisite: Consent of any nursing faculty. Students who have made arrangements with a faculty advisor for appropriate learning objectives may enroll.
May be repeated to a maximum of 6 units. Course fee may be required.

499./599. Selected Topics in Nursing (1-3)
Prerequisite: Consent of instructor.
Topics consistent with contemporary nursing or curricular trends.
May be repeated to a maximum of 3 units with different topics. Topics announced in the Schedule of Classes. Course fee may be required.

GRADUATE LEVEL

502. Genetics in Nursing Practice (3)
Prerequisites: Senior standing or graduate standing or consent of instructor.
Overview of genetics implications for nurses as they provide health services to clients of all ages, diverse ethnic, cultural, lifestyle and geographic areas. Explores basic mechanisms of genetic inheritance and impact that genetics has on health promotion, disease prevention and policy implications.
Letter grade only (A-F). Course fee may be required.

511A. Advanced Pathophysiology for Clinical Nurse Specialists (2)
Prerequisite: Admission to the Acute Care Adult CNS graduate nursing program or consent of instructor.
Presents the principles underlying the disturbance of human functional and homeostatic mechanisms. Disturbances at the cellular level are explored to enable the student to build an understanding of resultant aberrant organ and system function.
Letter grade only (A-F). Course fee may be required.

520. Advanced Pharmacology for Advanced Practice Nursing (3)
Prerequisites: Admission to the graduate nursing program, or consent of instructor.
Deals with use of drugs in providing perinatal care, family planning services and/or routine health care.
Letter grade only (A-F). Course fee may be required.

521A. Advanced Pharmacology for Clinical Nurse Specialists (CNS) (3)
Prerequisite: Admission to the Acute Care Adult CNS graduate nursing program.
Designed to provide advanced knowledge about pharmacological agents utilized in the management of a variety of acute care clinical situations. Content will focus on the role of CNS.
Letter grade only (A-F). Course fee may be required.

530. Advanced Physical Assessment for Advanced Practice Nursing (2)
Prerequisites: Admission to the graduate nursing program and completion of basic physical assessment course, or consent of instructor.
Corequisite: NRSG 530L.
Designed for advanced practice nurses and a prerequisite to each specialty track. Through classroom instruction, web based instruction and self-assessment, and on-site clinical review and practice, advanced assessment and diagnostic skills are developed.
Letter grade only (A-F). Course fee may be required.

530L. Advanced Physical Assessment Laboratory for Advanced Practice Nurses (1)
Prerequisites: Admission to graduate program or consent of instructor.
Corequisites: NRSG 530.
Application of theoretical knowledge of advanced physical assessment in supervised settings.
Credit/No Credit grading only. (Technical activities/lab 3 hours)

535. Advanced Pediatric Physical Assessment and Health Promotion (2)
Prerequisites: Admission to the Pediatric Primary Care nurse practitioner program or school nurse credential program or consent of the instructor.
Corequisites: NRSG 535L.
Theoretical content for the Pediatric Primary Care nurse practitioner and school nurse related to advanced pediatric health assessment and promotion. Developmental, cultural, spiritual, and psychosocial dimensions of the child and family are incorporated throughout the assessment process.
Letter grade only (A-F). Course fee may be required.

535L. Advanced Pediatric Physical Assessment Laboratory (1)
Prerequisites: Admission to the Pediatric Primary Care nurse practitioner program or school nurse credential program or consent of the instructor.
Corequisites: NRSG 535.
Application of theoretical knowledge of advanced pediatric physical assessment in supervised clinical settings appropriate to the specialty of the advanced practice nursing student.
Letter grade only (A-F). (Clinic off-campus, 3 hours)
536. Theories and Practice of School Nursing (3)
Prerequisites: Admission to the School Nurse Credential Program, NRSG 535, CD 353 or CD 531 and HSC 430, or consent of Instructor.
Corequisites: NRSG 536L.
Practical study of the relationship of theories of learning and instruction to patient/student teaching-learning situations. Content covered includes conditions of learning, models of instruction, transfer of learning, behavior modification techniques, variables influencing learning and instruction, and evaluation of instruction. Letter grade only (A-F). Course fee may be required.

536B. Curriculum Development in Nursing (3)
Prerequisites: Admission to the School Nurse Credential Program, NRSG 535, CD 353 or CD 531 and HSC 430, or consent of instructor.
Corequisites: NRSG 536.
Systematic study of principles of curriculum development as they apply to different types of nursing programs. Focuses on relationship among philosophy, objectives, selection and organization of learning experiences and evaluative process. Letter grade only (A-F). Course fee may be required.

556A. Conditions of Learning and Instruction in Nursing (3)
Application of theories of learning and instruction to patient/student teaching-learning situations. Content covered includes conditions of learning, models of instruction, transfer of learning, behavior modification techniques, variables influencing learning and instruction, and evaluation of instruction. Letter grade only (A-F). Course fee may be required.

556B. Curriculum Development in Nursing (3)
Systematic study of principles of curriculum development as they apply to different types of nursing programs. Focuses on relationship among philosophy, objectives, selection and organization of learning experiences and evaluative process. Letter grade only (A-F). Course fee may be required.

556C. Microteaching in Nursing (3)
Prerequisites: Graduate standing; NRSG 556A and 556B.
Focuses on instructional skills and the application of instruction in the practice of nursing within a microteaching laboratory setting. Supervised teaching situations are used to practice educational strategies specific to nursing education settings. Letter grade only (A-F).

556L. Theoretical Concepts in Nursing Education: Practice Teaching (4)
Prerequisites: NRSG 556A or consent of instructor.
Application of instructional skills and theories of learning in professional nursing settings. Working in actual supervised teaching situations, students practice skills that can be utilized in a variety of educational situations. Letter grade only (A-F). Course fee may be required.
599/499. Selected Topics in Nursing (1-3)
Prerequisite: Consent of instructor.
Topics consistent with contemporary nursing or curricular trends.
Letter grade only (A-F). May be repeated to a maximum of 3 units with different topics. Topics announced in the Schedule of Classes. Course fee may be required.

600. Theories for Advanced Practice Nursing in Adult-Gerontological Clinical Nurse Specialist I: Patient/Family (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 560L, NRSG 560A, NRSG 560B, NRSG 560C or departmental consent required.
Corequisites: NRSG 600L.
Emphasis is on the Clinical Nurse Specialist's (CNS) sphere of influence impacting health outcomes of diverse patients with multiple, complex health problems and their families by developing advanced competencies necessary for the management of multiple therapeutic interventions.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 673.

600L. Clinical Studies in Adult-Gerontological Clinical Care for the CNS I: Patient/Family (3)
Prerequisites: NRSG 600 or departmental consent required.
Corequisites: NRSG 600.
Focuses on implementation of CNS roles of teacher, expert clinician, manager of care, and research in a variety of acute and chronic care settings. Sphere of influence is primarily patient and family related.
Letter grade only (A-F). Not open for credit to students with credit in NRSG 673L. Course fee may be required.

601. Theories for Advanced Practice Nursing in Adult-Gerontological Clinical Nurse Specialist II: Staff Development (3)
Prerequisites: NRSG 600, NRSG 600L, or departmental consent required.
Corequisites: NRSG 601.
Deals with the development of advanced skills and competencies in the management of staff development, educational programs, motivation, consultation, and personnel ethics as they apply to the CNS's sphere of influence in staff development.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 674.

601L. Clinical Studies in Adult-Gerontological Clinical Care for the CNS II: Staff Development (3)
Prerequisites: NRSG 600, NRSG 600L, or departmental consent required.
Corequisites: NRSG 601.
Focuses on the clinical implementation of the CNS roles of educator, expert clinician, manager of care, and researcher in a variety of acute and chronic care settings as they apply to the CNS's sphere of influence in staff development.
Letter grade only (A-F). Not open for credit to students with credit in NRSG 674L. Course fee may be required.

602. Theories for Advanced Practice Nursing in Adult-Gerontological Nurse Specialist III: Organizational Systems (3)
Prerequisites: NRSG 601, NRSG 601L, or departmental consent required.
Corequisites: NRSG 602.
Focuses on development of advanced skills and competencies in CNS roles as managers of care, change agents, consultants and teachers in a variety of acute and chronic care settings as they apply to CNS's sphere of influence in organizational systems.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 675.

602L. Clinical Studies in Adult-Gerontological Clinical Care for the CNS III: Organizational Systems (3)
Prerequisites: NRSG 601, NRSG 601L, or departmental consent required.
Corequisites: NRSG 602.
Focuses on clinical implementation of CNS roles as managers of care, change agents, consultants and teachers in a variety of acute and chronic care settings as they apply to CNS's sphere of influence in organizational systems.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 675L.

610. Women's Health Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610A, NRSG 610B.
Epidemiology, etiology, differential diagnoses, management, and prevention of common health problems of women with a focus on the role of the nurse practitioner in health promotion, health protection, disease prevention in ambulatory health care settings.
Letter grade only (A-F). Not open for credit to students with credit in NRSG 667.

610A. Women's Health Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program in the women's health nurse practitioner specialty and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610, NRSG 610B.
One of two courses designed to allow students to apply theoretical knowledge and laboratory skills to manage common gynecologic health problems of women incorporating the health promotion, health protection, and disease prevention focus of nurse practitioner practice.
Letter grade only (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 667A.

610B. Women's Health Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program in the women's health nurse practitioner specialty and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 610A, NRSG 610B.
One of two courses designed to allow students to apply theoretical knowledge and laboratory skills to provide screening and preventive healthcare for women and healthcare for women experiencing normal pregnancies with a focus on the role of the nurse practitioner.
Letter grade only (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 667B.

611. Women's Health Theories for Advanced Practice Nursing II (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611A, NRSG 611B.
Epidemiology, etiology, differential diagnoses, management, and prevention of complex health problems of women before, during, and after the childbearing cycle in ambulatory health care settings with a focus on the role of the nurse practitioner.
Letter grade only (A-F). Not open for credit to students with credit in NRSG 668.

611A. Women's Health Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611, NRSG 611B.
One of two courses designed to apply theoretical knowledge and laboratory skills in the management of complex health problems of women before, during, and after the childbearing cycle in ambulatory health care settings. Emphasizes the role of the nurse practitioner in gynecology.
Letter grade only (A-F). (Laboratory 9 hours) Not open for credit to students with credit in NRSG 668A.
611B. Women’s Health Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: Admission to the graduate nursing program and NRSG 610, NRSG 610A, NRSG 610B, or consent of instructor.
Corequisites: NRSG 611, NRSG 611A.
One of two courses designed to allow the student to apply the knowledge and skills of caring for complex health problems of women before, during, and after the childbearing cycle in ambulatory health care settings with a focus on the role of the nurse practitioner. This clinical course focuses on obstetrics.
Letter grade only (A-F). Not open for credit to students with credit in NRSG 668B.

612. Women’s Health Theories for Advanced Practice Nursing III (3)
Prerequisites: NRSG 611, NRSG 611A, NRSG 611B.
Corequisite: NRSG 612A.
Epidemiology, etiology, differential diagnoses, management, and prevention of multifaceted health problems of women before, during, and after the childbearing cycle in ambulatory health care settings with a focus on the role of the nurse practitioner.
Letter grade only A-F. (3 hours discussion)

612A. Women’s Health Clinical Studies for Advanced Practice Nursing V (3)
Prerequisites: Admission to the graduate nursing program, NRSG 611, NRSG 611A, and NRSG 611B.
Corequisite: NRSG 612.
Designed to allow students the opportunity to apply theoretical knowledge of multifaceted women’s health problems in supervised clinical practice in ambulatory health care settings with a focus on the role of the women’s health nurse practitioner.
Letter grade only (A-F).

620. Family Theories for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 620A, NRSG 620B.
Presents epidemiology, pathophysiology, clinical presentation, diagnosis, and management of common diseases across life span. Role of family nurse practitioner in health promotion and disease prevention emphasized.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 682.

620A. Family Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596, or consent of instructor.
Corequisites: NRSG 620, NRSG 620B.
Allows opportunity to apply theoretical knowledge in supervised clinical settings in family practice. An emphasis placed on socialization into family nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours) Course fee may be required. Not open for credit to students with credit in NRSG 682A.

620B. Family Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 620, NRSG 620A.
Second of two clinical courses that allows expanded theoretical knowledge in supervised clinical settings in family practice. Emphasis placed on socialization into family nurse practitioner role.
Credit/No Credit grading only. Course fee may be required. Not open for credit to students with credit in NRSG 682B. (Laboratory 9 hours)

621. Family Theories for Advanced Practice Nursing II (3)
Prerequisites: NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor.
Corequisites: NRSG 621A, NRSG 621B.
Presents epidemiology, pathophysiology, clinical presentation, diagnosis, and management of common diseases across life span. Role of family nurse practitioner in health promotion and disease prevention emphasized.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 683.

621A. Family Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor.
Corequisites: NRSG 621, NRSG 621B.
Allows additional opportunity to apply theoretical knowledge in supervised clinical settings in family practice. Emphasis placed on socialization into family nurse practitioner role.
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 683A.

621B. Family Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: NRSG 620, NRSG 620A, NRSG 620B, or consent of instructor.
Corequisites: NRSG 621, NRSG 621A.
Second of two clinical courses designed to allow additional opportunity to apply theoretical concepts and expand clinical knowledge.
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 683B.

630. Adult-Gerontological Primary Care Theories for Advanced Practice Nursing I(3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or departmental consent required.
Corequisites: NRSG 630A, NRSG 630B.
Epidemiology, etiology, differential diagnoses, management and prevention of selected health problems of adult/geriatric patient in primary, secondary and tertiary settings and role of nurse practitioner in these settings in a changing healthcare environment.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 686.

630A. Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 and clinical pre-test, or departmental consent required.
Corequisites: NRSG 630, NRSG 630B.
Designed to allow adult and geriatric nurse practitioner student to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. Emphasis placed on beginning socialization into nurse practitioner role.
Credit/No Credit grading only. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 686A.

630B. Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596, or consent of instructor.
Corequisites: NRSG 630, NRSG 630A.
Designed to allow adult and geriatric nurse practitioner student to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. Emphasis is placed on beginning socialization into nurse practitioner role.
Credit/No Credit grading only. Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 686B.
631. Adult-Gerontological Primary Care Theories for Advanced Practice Nursing II (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631A, NRSG 631B.
Epidemiology, etiology, differential diagnoses, management and prevention of additional selected health problems of adult/geriatric patient in primary, secondary and tertiary settings, and a further delineation of role of nurse practitioner in these changing healthcare environment.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 687.

631A. Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing III (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631B.
Designed to allow adult and geriatric nurse practitioner student to apply theory into clinical practice with adult and geriatric patients. Emphasis placed on continuation to socialize into the nurse practitioner role.
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours). Not open for credit to students with credit in NRSG 687A.

631B. Adult-Gerontological Primary Care Clinical Studies for Advanced Practice Nursing IV (3)
Prerequisites: NRSG 630, NRSG 630A, NRSG 630B, or departmental consent required.
Corequisites: NRSG 631, NRSG 631A.
Designed to allow adult and geriatric nurse practitioner student to apply theory into clinical practice with adult and geriatric patients. Emphasis placed on continuation to socialize into the nurse practitioner role.
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 687B.

640. Psychiatric-Mental Health Theory Across the Lifespan for Advanced Practice Nursing I (3)
Prerequisites: Admission to PMHN program; completion of NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisite(s): Corequisite: NRSG 640A, NRSG 643.
Introductory study for PMHN students of genetics, brain physiology and environmental factors leading to individual psychological and personality development; required knowledge base for assessment and recognition of psychological disorders; and, exploration of family dynamics and functional theories across the lifespan.
Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 688.

640A. Psychiatric-Mental Health Across the Lifespan Clinical Studies for Advanced Practice Nursing I (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or consent of instructor.
Corequisites: NRSG 640, NRSG 643.
First clinical practicum for PMHN students that focuses on application of mental health concepts in laboratory based clinical situations. Theories from prerequisite and concurrent courses are applied and tested. (Laboratory 9 hours/week).
Credit/No credit grading only. Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 688A.

640B. Psychiatric-Mental Health Clinical Studies Across the Life Span for Advanced Practice Nursing II (3)
Prerequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560 and NRSG 596, or departmental consent required.
Corequisites: NRSG 640, NRSG 640A.
Second clinical practicum for nurse practitioner students that focuses on application of mental health concepts. Theories from prerequisite and concurrent courses are applied and tested.
Credit/No credit grading only. Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 688B.

641. Psychiatric-Mental Health Theory for Adults and Elderly for Advanced Practice Nursing III (3)
Prerequisites: Admission to PMHN program; completion of NRSG 640, NRSG 640A, & NRSG 643, or consent of instructor.
Corequisite: NRSG 641A & NRSG 641B.
Study of pathology, diagnostic methods, indications for referral, and management for nurse practitioner students of medical, psychological, and social problems of adults and elderly clients of psychiatric facilities and community mental health agencies.
Letter grade only (A-F).

641A. Psychiatric-Mental Health Clinical Studies for Adults for Advanced Practice Nursing IV (3)
Prerequisites: Admission to PMHN program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor.
Corequisite: NRSG 641 & NRSG 641B.
Clinical practicum for family psychiatric nurse practitioner students that focus on application of mental health concepts in adult patients. Theories from prerequisite and concurrent courses are applied and tested. (Laboratory 9 hours/week).
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 689A.

641B. Psychiatric-Mental Health Clinical Studies for Elderly for Advanced Practice Nursing V (3)
Prerequisites: Admission to PMHN program; completion of NRSG 640, NRSG 640A, NRSG 643 or consent of instructor.
Corequisite: NRSG 641 & NRSG 641A.
Clinical practicum for nurse practitioner students that focuses on application of mental health concepts in elderly patients. Theories from prerequisite and concurrent courses are applied and tested. (Laboratory 9 hours/week).
Letter grade only (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 689B.

642. Psychiatric-Mental Health Theory for Children and Adolescents Advanced Practice Nursing IV. (3)
Prerequisites: Admission to the PMHN program and completion of NRSG 641, NRSG 641A, and NRSG 641B, or consent of instructor.
Corequisites: NRSG 642A, NRSG 642B.
Study of pathology, diagnostic methods, indications for referral, and management of medical, psychological, and social problems of children and adolescent clients of psychiatric facilities and community mental health agencies.
Letter grade only (A-F).

642A. Psychiatric-Mental Health Clinical Studies for Children for Advanced Practice Nursing IV. (3)
Prerequisites: Admission to the PMHN program and completion of NRSG 641, NRSG 641A and NRSG 641B, or consent of instructor.
Corequisites: NRSG 642, NRSG 642B.
Clinical practicum for family psychiatric nurse practitioner students that focuses on application of mental health concepts in children. Theories from prerequisite and concurrent courses are applied and tested.

642B. Psychiatric-Mental Health Clinical Studies for Adolescents for Advanced Practice Nursing V (3)
Prerequisites: Admission to the PMHN program and completion of NRSG 641, NRSG 641A and NRSG 641B, or consent of instructor.
Corequisites: NRSG 642, NRSG 642A.
Clinical practicum for family psychiatric nurse practitioner students that focuses on application of mental health concepts in adolescents. Theories from prerequisite and concurrent courses are applied and tested.
643. Advanced Psychopharmacology for Psychiatric-Mental Health Theory Across the Lifespan for Advanced Practice Nursing II (3)
Prequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596, or consent of instructor. Corequisites: NRSG 640, NRSG 640A, NRSG 640B
Study of furnishing/management of psychotrophic drugs in the provision of mental health care across the lifespan.
Letter grade only (A-F).

646. Scientific Foundations for Advanced Practice Nursing I (3)
Prequisites: Admission to graduate nursing program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596, or consent of instructor. Corequisites: NRSG 640, NRSG 640A, NRSG 640B
First of two clinical courses that deal with application of theory related to assessment, diagnosis, and management of common pediatric health care problems by the pediatric nurse practitioner. The specific topics covered are the management of endocrine, metabolic, cardiac, hematologic, atopic, rheumatoid, autoimmune, neurologic, genetic, and mental disorders in children.
Letter grade only (A-F). (3 hours discussion)

650. Pediatric Theories for Advanced Nursing I (3)
Corequisites: NRSG 650A and NRSG 650B.
Theoretical based content for providing care in the role of a pediatric nurse practitioner. Content focuses on preventive health care, well child care, disease management, professional issues, and related research. Letter grade only (A-F). Course fee may be required. Not open for credit to students with credit in NRSG 684. (Discussion 3 hours)
650A. Pediatric Clinical Studies for Advanced Practice Nursing I (3)
Prequisites: NRSG 510, NRSG 520, NRSG 535, NRSG 535L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596 or consent of instructor.
Corequisites: NRSG 650 and NRSG 650B.
The clinical course of Pediatric Primary Care nurse practitioner program. Emphasis on application of theory to preventative health care, management of well child and common pediatric problems.
Credit/No credit grading only. Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 684A.

650B. Pediatric Clinical Studies for Advanced Practice Nursing II (3)
Corequisites: NRSG 650 and NRSG 650A.
Second clinical course of Pediatric Primary Care nurse practitioner program. Emphasis on application of theory to preventative health care, management of well child and common pediatric problems.
Credit/No credit grading only. Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 684B.

651. Pediatric Theories for Advanced Practice Nursing II (3)
Prequisites: NRSG 650, NRSG 650A, NRSG 650B.
Corequisites: NRSG 651A and NRSG 651B.
Diagnosis, treatment and management of common pediatric conditions/disorders by the pediatric nurse practitioner. The specific topics covered are the management of common pediatric diseases including: infectious, ENT, ophthalmic, dental, respiratory, dermatologic, gastrointestinal, genitourinary, and musculoskeletal disorders.
Letter grade only (A-F). Course fee may be required. (Discussion 3 hours) Not open for credit to students with credit in NRSG 685.

651A. Pediatric Clinical Studies for Advanced Practice Nursing III (3)
Prequisites: NRSG 650, NRSG 650A, and NRSG 650B.
Corequisites: NRSG 651 and NRSG 651B.
First of two clinical courses that deal with application of theory related to assessment, diagnosis, and management by the pediatric nurse practitioner of common pediatric health care problems in clinical settings.
Letter grade only. (A-F). Course fee may be required. (Laboratory 9 hours) Not open for credit to students with credit in NRSG 685A.

651B. Pediatric Clinical Studies for Advanced Practice Nursing IV (3)
Prequisites: NRSG 650, NRSG 650A, and NRSG 650B.
Corequisites: NRSG 651 and NRSG 651A.
Application of theory related to assessment, diagnosis, and management by the pediatric nurse practitioner of common pediatric health care problems in clinical settings.
Letter grade only. (A-F). (Laboratory 9 hours) Course fee may be required. Not open for credit to students with credit in NRSG 685B.

652. Pediatric Theories for Advanced Practice Nursing III (3)
Prequisites: NRSG 651, NRSG 651A, NRSG 651B. 
Corequisites: NRSG 652A.
Diagnosis, treatment, and management of complex and chronic pediatric diseases by the pediatric nurse practitioner. The specific topics covered are the management of endocrine, metabolic, cardiac, hematologic, atopic, rheumatoid, autoimmune, neurologic, genetic, and mental disorders in children.
Letter grade only (A-F). (3 hours discussion)

652A. Pediatric Clinical for Advanced Practice Nursing V (3)
Prequisites: NRSG 651, NRSG 651A, NRSG 651B.
Corequisites: NRSG 652.
Demonstrate, at an advanced level, the application of theory from previous and concurrent course work concerning assessment, diagnosis, and management of common and chronic pediatric health care problems.
Letter grade only (A-F). (9 hours laboratory)

660. Adult-Gerontological Acute Care Theories for Advanced Practice Nursing I (3)
Prequisites: Admission to AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, and NRSG 596 or consent of instructor. Corequisite(s): NRSG 660A, NRSG 660B
Epidemiology, etiology, differential diagnoses, and management of acute patients at an advanced level. Vulnerable patients experiencing complex episodic illness (acute, terminal, or exacerbation of chronic disease) who are physiologically unstable and technologically dependent are the population of focus.
Letter grade only (A-F)

660A. Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing I (3)
Prequisites: Admission to the AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596. Corequisite(s): NRSG 660, NRSG 660B
The course provides the AGACNP student with supervised clinical practice to apply the theoretical concepts from N660 in the evaluation, diagnosis, and treatment of medically complex and/or acutely ill adult and geriatric patients. (Laboratory 9 hours/week)
Letter grade only (A-F)

660B. Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing II (3)
Prequisites: Admission to the AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596.
Corequisite(s): NRSG 660, NRSG 660A
This course provides the AGACNP students with supervised clinical practice to apply the theoretical concepts for N660 in the evaluation, diagnosis, and treatment of medically complex and/or acutely ill adult and geriatric patients. (Laboratory 9 hours/week)
Letter grade only (A-F)

661. Adult-Gerontological Acute Care Theories for Advanced Practice Nursing II (3)
Prequisites: Admission to the AGACNP program and NRSG 510, NRSG 520, NRSG 530, NRSG 530L, NRSG 540, NRSG 550, NRSG 560, NRSG 596 or consent of instructor.
Corequisite(s): NRSG 660, NRSG 660B
Epidemiology, etiology, differential diagnoses, and management of acute patients at an advanced level. Vulnerable patients experiencing complex episodic illness (acute, terminal, or exacerbation of chronic disease) who are physiologically unstable and technologically dependent are the population of focus.
Letter grade only (A-F)
661A. Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing III (3)
Prerequisite(s): Admission to the AGACNP program and NRSG 660, NRSG 660A, NRSG 660B. Corequisite(s): NRSG 661+ NRSG 661B
The course provides the AGACNP student with supervised clinical practice to apply the theoretical concepts from N661 in the evaluation, diagnosis, and treatment of medically complex and/or acutely ill adult and geriatric patients. (Laboratory 9 hours/week)
Letter grade only (A-F)

661B. Adult-Gerontological Acute Care Clinical Studies in Advanced Practice Nursing IV (3)
Prerequisite(s): Admission to the AGACNP program and NRSG 660, NRSG 660A, NRSG 660B. Corequisite(s): NRSG 661, NRSG 661A
The course provides the AGACNP student with supervised clinical practice to apply the theoretical concepts from N661 in the evaluation, diagnosis, and treatment of medical complex and/or acutely ill adult and geriatric patients. (Laboratory 9 hours/week)
Letter grade only (A-F)

670. Community Health Theories for Advanced Nursing Practice I (3)
Prerequisites: Admission to graduate nursing program and NRSG 565, or consent of instructor.
Corequisite: NRSG 670L.
Community/Public health theories will be applied in the context of health problems, global health issues, and the changing health care environment for vulnerable populations addressing the social determinants of health. The focus will be on the community/public health nurse leader.
Letter grade only (A-F). (Seminar 3 hours) Course fee may be required.

670L. Advanced Community/Public Health Nursing Clinical Studies I (3)
Prerequisites: Admission to graduate nursing program and NRSG 565 or consent of instructor.
Corequisite: NRSG 670.
In conjunction with the instructor, the student will identify an agency and preceptor who will provide “hands on experience” that will meet the course objectives, the student’s personal learning objectives and the student's mission statement. Clinical pre-ceptored course.
Credit/No Credit grading only. (Clinical 9 hours) Course fee may be required.

671. Community Health Theories for Advanced Practice Nursing II (3)
Prerequisites: NRSG 670 and NRSG 670L or consent of instructor.
Corequisites: NRSG 671L.
Population health and global health care issues, ethical issues, and health care policies will be explored in order to provide an insight into how the current populations experience health and wellbeing while orchestrating their daily lives.
Letter grade only (A-F). (Seminar, 3 hours) Course fee may be required.

671L. Advanced Community/Public Health Nursing Clinical Studies II (3)
Prerequisites: NRSG 670 and NRSG 670L, or consent of instructor.
Corequisites: NRSG 671.
Clinical course offering leadership and mentoring in a community/public health setting for the student to acquire exposure to development of projects and addressing issues for the vulnerable populations.
Letter grade only (A-F). (Clinical 9 hours) Course fee may be required.

672. Advanced Community Health Theories for Advanced Practice Nursing III (3)
Prerequisites: NRSG 671, NRSG 671L or consent of instructor.
Corequisites: NRSG 672L.
Focus will be on the leadership role of the C/PHN in the integration of nursing and public health theories in evaluation and internalization strategies for health programs and policies for underserved and ethnically diverse populations.
Letter grade only (A-F). Course fee may be required.

676. Organizing and Structuring Optimal Healing Environments (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 676L.
Administering nursing and healthcare systems and delivering patient-centered care in a changing environment, incorporating new technology and evidence-based practice. The application of management, organization, and leadership theory within the context of structuring healthcare delivery systems for optimal healing and patient-centeredness.
Letter grade only (A-F). (Discussion)

676L. Practicum In Organizing and Structuring Optimal Healing Environments (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 676.
Practicum and on-site laboratory opportunity to apply principles and theories for organizing and structuring optimal healing environments in complex nursing and/or healthcare settings. An experienced, practicing nurse executive will provide mentorship during the practicum.
Letter grade only (A-F).

677. Human Resources and Professional Relationships in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 677.
In-depth study of the theories, functions and components of human resources management within nursing and healthcare systems. Emphasis on establishing competitive work environments with high levels of staff satisfaction. Intra and inter-disciplinary and departmental communication and relationships are also addressed.
Letter grade only (A-F). (Discussion)

677L. Practicum In Human Resources and Professional Relationships In Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 677.
Practicum and on-site laboratory opportunity to apply principles and theories of continuous quality improvement and informatics in complex nursing and/or healthcare settings. An experienced, practicing nurse executive will provide mentorship during the practicum.
Letter grade only (A-F).

678. Continuous Quality Improvement in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 678L.
In-depth study of continuous quality improvement, examining theories and principles of program and service evaluation and the organizational, clinical and administrative systems needed in complex nursing and/or healthcare systems. Methodologies for data collection, analysis and benchmarking with national quality and safety standards.
Letter grade only (A-F).

678L. Practicum In Continuous Quality Improvement in Nursing and Health Systems (3)
Prerequisite(s): Admission to the NHSEM program, NRSG 559
Corequisite(s): Concurrent Enrollment in NRSG 678.
Practicum and on-site laboratory opportunity to apply principles and theories of continuous quality improvement and informatics in complex nursing and/or healthcare settings. An experienced, practicing nurse executive and/or informant will provide mentorship during the practicum.
Letter grade only (A-F). (Technical activities/laboratory 9 hours)
679. Nursing and Health Systems Governance and Population-Based Care Delivery (3)
Prerequisite: Admission to the NHSEM program, NRSG 559
The political realities associated with nursing and healthcare delivery are presented with strategies for changing policy and legislation. Methodologies are explored for assessing the demographics, needs and health status of the community served and providing services in a “population-based” manner.
Letter grade only (A-F). (3 hours discussion)

680A. Theories for Extended Nursing Practice (3)
Prerequisites: Admission to graduate nursing program, a physical assessment course and upper division pathophysiology course, or consent of instructor.
Corequisites: NRSG 680L.
A laboratory course offering clinical experience in selected settings to prepare for advanced nursing practice.
May be repeated to a maximum of 9 units with different topics. Course fee may be required.

680L. Clinical Studies in Nursing (3)
Prerequisites: Admission to graduate nursing program, a physical assessment course and upper division pathophysiology course, or consent of instructor.
Corequisites: NRSG 680A.
A laboratory course offering clinical experience in selected settings to prepare for advanced nursing practice.
May be repeated to a maximum of 9 units with different topics. Course fee may be required.

692. Nursing Directed Project (1-3)
Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596 and consent of school graduate advisor.
Planning, preparation and completion of a directed project appropriate to advanced practice nursing.
May be repeated to a maximum of 4 units in different semesters. Letter grade only (A-F). Course fee may be required.

693. Executive Management Project (3)
Prerequisites: Advancement to candidacy and completion of 21 graduate units
Development of a comprehensive business plan for a new nursing and/or health systems program or service or major revision of an existing program/service including vision, mission, goals, evaluative criteria, market analysis, pro-forma budget, options for financing, marketing and advertising.
Letter grade only (A-F). (3 hours discussion)

694. Community Based Study (3)
Prerequisites: Admission to graduate nursing program, consent of instructor, and a physical assessment course and upper division pathophysiology course, or consent of instructor.
A laboratory course offering clinical experience in selected settings to prepare for advanced nursing practice.
May be repeated to a maximum of 9 units with different topics. Course fee may be required.

695. Professional Literature (3)
Prerequisites: NRSG 510, NRSG 520, NRSG 530 or NRSG 535, NRSG 530L or NRSG 535L, NRSG 540, NRSG 550, NRSG 560, NRSG 596, theory and clinical course series for one of the Nurse Practitioner or CNS specialties, and advancement to candidacy, or consent of instructor and graduate advisor.
Critical analysis and synthesis by comparative review of professional literature in nursing practice, theory, and research.
Not open for credit to students taking NRSG 698. Letter grade only (A-F). Course fee may be required.

698. Thesis (1-3)
Prerequisites: Admission to graduate nursing program, advancement to candidacy, NRSG 596, consent of school graduate advisor.
Planning, preparation and completion of a thesis in clinical nursing.
Letter grade only (A-F). Course fee may be required.
797A. Integrative Clinical Scholarship I: Evidence-Based Practice (3)
Prerequisite/Corequisite: Advanced Evidence-Based Practice in Nursing
Advanced research/laboratory course focused on analysis of history/role of DNP, role transition, interprofessional collaboration and leadership, clinical microsystems thinking, project development and management within healthcare systems. Includes principles of grant writing and development of DNP project proposal.
Letter grade only (A-F). (Seminar 1 hour, Clinical 6 hours)

797B. Integrative Clinical Scholarship II: Evidence-Based Practice (3)
Prerequisite/Corequisite: NRSG 797A.
Implementation of DNP project, within a clinical setting, using integration of theory and evidence-based change from nursing science and other disciplines. Emphasizes incorporation of principles of practice inquiry, evidence-based practice, and/or practice inquiry. Integration of core DNP concepts and competencies.
Letter grade only (A-F).

797C. Integrative Clinical Scholarship III: Evidence-Based Practice (3)
Prerequisite: NRSG 797B.
Evaluation and completion of DNP project. Emphasizes incorporation of principles of practice inquiry, evidence-based practice, and/or practice inquiry. Integration of core DNP concepts and competencies.
Letter grade only (A-F). (Seminar 1 hour, Clinical 6 hours)
NUTRITION AND DIETETICS
College of Health and Human Services
Department of Family and Consumer Sciences

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Doctoral Individualized Supervised Practice Pathway Coordinator: Long Wang
Internship Program in Nutrition and Dietetics Director: Gail Frank
Baccalaureate Program Coordinator: Richard V. Tuveson
Graduate Coordinator: Virginia Gray
Administrative Support Coordinators: Mikal Lok, Marina Bendersky, Andrew Redmayne
Instructional Support Technician: Bonnie Rice

Career Possibilities
Clinical Dietitian • Private Practice Dietitian • Research Dietitian • School Foodservice Director • Food Products Sales Representative • Food Technologist • Food Service Supervisor • Restaurant Manager • Public Health Nutritionist • Food and Drug Inspector • Public Health and Wellness Educator • Community Nutrition Programs • Health Clubs • Private Consulting • Health and Welfare Agencies • Program Administration • Health Promotion. (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Undergraduate Degrees

Bachelor of Science in Dietetics and Food Administration
The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in Dietetics and Food Administration with two option areas of study:
• Nutrition and Dietetics
• Food Science (suspended)
Degree and certificate information and requirements are listed under each option alphabetically in this Catalog.
Requirements for the major include a minimum of 120 units for Nutrition and Dietetics. In addition to general education requirements (48 units), a minimum of 40 units in Family and Consumer Sciences is required, 24 of which must be upper division. Students transferring from another college or university will receive transfer credit in required courses if the course is equivalent to the course at this University and it is accepted by the University.

Nutrition and Dietetics
This degree option has two concentrations- Dietetics and Nutritional Science. Students will focus their studies in nutritional science, medical nutrition therapy, community nutrition, food production and management of foodservice operations (Dietetics concentration only), chemistry, physiology, plus a variety of supporting course work in related disciplines.

Dietetics Concentration
The Dietetics Concentration fulfills the Academy of Nutrition and Dietetics (AND) academic requirements for eligibility to apply for qualifying experiences required to become a Registered Dietitian/Nutritionist.

Becoming a Registered Dietitian/Nutritionist
Registered Dietitians/Nutritionists (RDs/RDNs) are considered food and nutrition experts. They have met the following criteria to earn the RD/RDN credential:
• Completion of a minimum of a bachelor’s degree at a U.S. regionally accredited university or college and course work accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), the credentialing agency of the Academy of Nutrition and Dietetics (AND).
• Completion of a supervised practice program accredited by ACEND.
• Passed a national examination administered by the Commission on Dietetic Registration (CDR).
In order to maintain registration, the RD/RDN must provide evidence of fulfilling continuing professional educational requirements to maintain registration. Some RDs/RDNs hold additional certifications in the specialized areas of practice, such as pediatric or renal nutrition, nutrition support, and

Bachelor of Science in Hospitality Management
Degree and certificate information and requirements are listed under each option alphabetically in this catalog.

Bachelor of Arts in Family and Consumer Sciences

This degree offers six options:
• Child Development and Family Studies
• Consumer Affairs
• Family and Consumer Sciences Education
• Family Life Education
• Fashion Design
• Fashion Merchandising

Degree and certificate information and requirements are listed under each option alphabetically in this catalog.
Nutrition & Dietetic Technician

Alternative pathway- Becoming an NDTR (Nutrition & Dietetic Technician)

Dietetic technicians, registered (DTRs) are educated and trained at the technical level of nutrition and dietetics practice for the delivery of safe, culturally competent, quality food and nutrition services. DTRs are an integral part of healthcare and food service management teams.

DTRs work under the supervision of a registered dietitian nutritionists (RDNs) when in direct patient/client nutrition care in practice areas as:

- Hospitals, clinics, nursing homes, retirement centers, hospices, home health-care programs and research facilities conducting patient/client screens, gathering data and performing assigned tasks to assist RDNs in providing medical nutrition therapy.

DTRs may work independently in providing general nutrition education to healthy populations in a variety of settings as:

- Schools, day-care centers, correctional facilities, restaurants, health-care facilities, corporations and hospitals, managing employees, purchasing and food preparation and maintaining budgets within foodservice operations.

- Women, Infants, Children (WIC) programs, public health agencies, Meals on Wheels and community health programs, assisting registered dietitians with the implementation of programs and presentation of classes for the public.

- Health clubs, weight management clinics and community wellness centers, helping to educate clients about the connection between food, fitness and health.

- Food companies, contract food management companies or food vending and distributing operations developing menus, conducting nutrient analysis and data collection, and overseeing foodservice sanitation and food safety.

DTRs are nationally credentialed food and nutrition technical practitioners who have met the following criteria to earn and maintain the DTR credential.

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Nutritional Science Concentration

The Nutritional Science Concentration focuses on nutrition as part of medical and health issues and is suitable for students wishing to apply for graduate school, medical school or other health-related programs. Students who select the Nutritional Science Concentration as a pre-professional degree should check with the appropriate programs to verify specific requirements.

Option in Nutrition and Dietetics

(120 units)

Take all of the following courses:

- MATH 113 Precalculus Algebra (3)
  * C or better
  Prerequisite: Appropriate ELM score, ELM exemption

- BIOL 207 Human Physiology (4)
  * C or better
  Prerequisite: GE Foundation requirements.

- CHEM 111A General Chemistry (5)
  **C** or better required.
  Prerequisite: A passing score on the Chemistry Placement Examination.
  Corequisite: MATH 109 or higher.

- CHEM 448 Fundamentals of Biological Chemistry (3)
  **C** or better required.
  Prerequisite: CHEM 220B or CHEM 227 either with a grade of "C" or better.

- CHEM 449 Nutritional Biochemistry Laboratory (1)
  Prerequisite: CHEM 448 with a grade of "C" or better. Can be taken concurrently with CHEM 448.

- BIOL 201 General Microbiology for Health Professionals (4)
  Prerequisites: CHEM 111A or CHEM 140 with a grade of "C" or better and GE Foundation requirements.

- SOC 335 Social Psychology (3)
  Prerequisite: Upper division standing.

- CAFF 321 (GE) Family and Consumer Resource Management (3)
  Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing.

- FCS 299 Introduction to Family & Consumer Sciences (1)
  Prerequisites: None.
  Not open for credit to students with credit in FCSE 299.

- FCS 499 Professionalism and Leadership in Family and Consumer Sciences Professionals (1)
  Prerequisites: FCS 299, CAFF 321, 12 units of upper division course work in Family and Consumer Sciences. Must be taken in one of the last two semesters prior to graduation.
  Not open for credit to students with credit in FCSE 499.

- NUTR 132 Introductory Nutrition (3)
  * C or better
  Prerequisite/Corequisite: One Foundation course.

- NUTR 331 Nutrition through the Life Cycle (3)
  Prerequisites: For the Dietetics Concentration BIOL 207, NUTR 132, NUTR 234; For the Nutritional Sciences Concentration BIOL 207, NUTR 132.

- NUTR 336 Social and Cultural Aspects of Food and Health (3)
  Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

- NUTR 436 Advanced Nutrition (3)
  Prerequisites/Corequisites: NUTR 331; CHEM 448.
A. Dietetics Concentration

Take all of the following courses:

- CHEM 227 Fundamentals of Organic Chemistry (3)
  - Prerequisites: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended.

- FSCI 332 Food Science (3)
  - Prerequisites: CHEM 227; HFHM 176; MICR 200 or equivalent.

- HFHM 176 Fundamentals of Food Preparation (3)
  - Prerequisites: None.

- HFHM 343 Food Production Systems for Nutrition and Dietetics Professionals (3)
  - Prerequisites: NUTR 132 and HFHM 176.

- HFHM 345 Food Service Operations for Nutrition and Dietetics Professionals (2)
  - Prerequisites: HFHM 343; California Food Handler’s Card valid for at least one year.

- HFHM 447 Foodservice Administration for Dietetic and Nutrition Professionals (3)
  - Prerequisites: HFHM 343.

- NUTR 234 Orientation to Dietetics and Food Administration (1)
  - Prerequisites: Open only to Nutrition and Dietetics majors.

- NUTR 334 Nutrition Education (2)
  - Prerequisites: NUTR 331, SOC 335.

- NUTR 437 Nutrition Counseling and Motivational Techniques (2)
  - Prerequisites: NUTR 334, NUTR 335, NUTR 436.

- NUTR 461 Community Nutrition (3)
  - Prerequisites: NUTR 331, NUTR 334, NUTR 336.

- NUTR 498A Senior Seminar for Dietetics I (1)
  - Prerequisites: NUTR 436.

- NUTR 498B Senior Seminar for Dietetics II (1)
  - Prerequisites: NUTR 498A.

Take one of the following courses:

- STAT 108 Statistics for Everyday Life (3)
  - Prerequisites: None.
  - * C or better required

- BIOL 260 Biostatistics (3)
  - * C or better required
  - Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

- EDP 419 Educational Statistics (3)
  - * C or better required
  - Prerequisites: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower-division statistics course.

- PSY 110 Introductory Statistics (4)
  - * C or better required
  - Prerequisites: Eligible to take a General Education Mathematics course.

B. Nutritional Science Concentration

Take all of the following courses:

- BIOL 208 Human Anatomy (4)
  - Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 207, BIOL 211, CHEM 311, CHEM 140, DAN 261, or MICR 200.

- CHEM 111B General Chemistry (5)
  - *"C" or better required.
  - Prerequisite: CHEM 111A with grade of "C" or better.

- CHEM 220A Organic Chemistry I (3)
  - *"C" or better required.
  - Prerequisite: CHEM 220A with a grade of "C" or better.

- CHEM 220B Organic Chemistry II (3)
  - *"C" or better required.
  - Prerequisite: CHEM 220A with a grade of "C" or better.

- CHEM 223A Organic Chemistry Laboratory I (1)
  - *"C" or better required.
  - Corequisite: CHEM 223A, both with a grade of "C" or better.

- CHEM 223B Organic Chemistry Laboratory (1)
  - * C or better required
  - Prerequisites: CHEM 220A and CHEM 223A, both with a grade of "C" or better.

Take one of the following courses:

- STAT 108 Statistics for Everyday Life (3)
  - Prerequisite: None.
  - * C or better required

- BIOL 260 Biostatistics (3)
  - * C or better required
  - Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MICR 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

- EDP 419 Educational Statistics (3)
  - * C or better required
  - Prerequisites: Satisfactory completion of an undergraduate mathematics course suitable for general education math credit and, if required by the major, a lower-division statistics course.

- PSY 110 Introductory Statistics (4)
  - * C or better required
  - Prerequisites: Eligible to take a General Education Mathematics course.

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The Academy of Nutrition and Dietetics (AND) Didactic Program in Dietetics accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND)

The ACEND, the accrediting agency for the AND Didactic (Academic) Program in Dietetics (DPD), is designed to provide students with a foundation of knowledge and skills in dietetics that will enable them to perform successfully in a dietetic internship. The DPD is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the AND, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, phone: 312-899-0040, ext. 5400. This Council is a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. The AND Didactic Program in Dietetics is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The program is designed to provide students with a foundation of knowledge and skills in dietetics that will enable them to perform successfully in a dietetic internship. The program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics.
States Department of Education. It is the responsibility of the student to consult with the DPD Director to verify current ACEND requirements to become a Registered Dietitian.

Students who choose to meet DPD requirements must select the following as electives:

- **HFHM 375 Food Production Systems II (3)**  
  Prerequisite: HFHM 276.
- **HFHM 477 Restaurant and Dining Management (3)**  
  Prerequisite: HFHM 276.

Students must receive a grade of "C" or better in DPD courses to receive verification of completion of the DPD. Approval of a student's academic program by the CSULB DPD Director requires that the student complete HFHM 477, and NUTR 335 at CSULB. Upon completion of the Bachelor of Science in Dietetics and Food Administration with the Option in Nutrition and Dietetics, all students' transcripts are audited by the CSULB DPD Director to verify completion of course and grade requirements in order to receive the verification statement of completion of the DPD. Students can view details of the DPD program at www.csulb.edu/dpd.

### Courses (NUTR)

#### LOWER DIVISION

**132. Introductory Nutrition (3)**  
Prerequisite/Corequisite: One Foundation course.

Essential nutrients, their physiological functions and human needs during the life cycle; food sources as applied to selection of an adequate diet; problems encountered providing food to meet nutritional needs; food additives and consumer protection.

Not open for credit to students with credit in FCS 232. (Lecture-discussion 3 hours)

**234. Orientation to Dietetics and Food Administration (1)**  
Prerequisite: Open only to Nutrition and Dietetics majors.

Role of the professional in dietetics and food administration; orientation to career opportunities in Food, Nutrition and Foodservice Systems Management; personnel and physical facilities, including equipment in health care and mass feeding programs.

#### UPPER DIVISION

**331. Nutrition through the Life Cycle (3)**  
Prerequisites: For the Dietetics Concentration BIOL 207, NUTR 132, NUTR 234; For the Nutritional Sciences Concentration BIOL 207, NUTR 132.

Nutritional needs with emphasis on changes through the life cycle, including pregnancy and lactation, infancy, childhood, adolescence, adulthood, and aging.

Letter grade only (A-F).

**333. Latino Nutrition, Health and Chronic Disease Prevention (3)**  
Prerequisites: GE Foundation requirement, one or more Exploration courses and upper division standing.

Explores nutrition-related and contextual factors associated with the high rates of chronic disease among diverse Latino-specific subpopulations and provide culturally-relevant strategies for prevention.

Letter grade only (A-F). Same course as HSC 333. Not open for credit to students with credit in HSC 333.

**334. Nutrition Education (2)**  
Prerequisites: NUTR 331, SOC 335

Develop effectiveness as a nutrition educator by applying behavior change theories and techniques. Develop critical thinking, research, and presentation skills through the design, implementation and evaluation of nutrition education for a variety of nutrition issues and audiences.

Letter grade only (A-F). (1 hour lecture activity and 2 hours technical activity and lab)

**335 (formerly 436L). Nutrition Assessment (2)**  
Prerequisites: NUTR 331.

This course provides training in nutrition assessment as part of the Nutrition Care Process. Students will learn and practice laboratory methods for collection and interpretation of demographic, dietary, anthropometric, biochemical and clinical data.

Letter grade only (A-F). (1 hours lecture discussion and 3 hours technical activities and lab) Course fee may be required.

**336. Social and Cultural Aspects of Food and Health (3)**  
Prerequisites: For Dietetics Concentration NUTR 132, NUTR 234, SOC 335; for Nutritional Sciences Concentration NUTR 132, SOC 335.

Social and cultural impacts on food and nutrition around the world. Global food patterns, culturally competent care, global hunger and food aid, and trends in food production.

Letter grade only (A-F). (Lecture 3 hours)

**339. Nutrition for Nursing Professionals (3)**  
Prerequisites: CHEM 140, BIOL 207, admission to the School of Nursing or consent of instructor.

Metabolic role of nutrients in the human body; practical application of nutrition to patient care.

Open to Nursing Majors only. Letter grade only (A-F). (Lecture-activity 3 hours)

**436. Advanced Nutrition (3)**  
Prerequisites/Corequisites: NUTR 331; CHEM 448

Metabolism of proteins, fats, carbohydrates, minerals and vitamins; interrelationship of nutrients; principles of determining nutritional requirements of individuals.

Letter grade only (A-F). (2 hours lecture activities and 2 hours technical activities and lab)

**437. Nutrition Counseling and Motivational Techniques (2)**  
Prerequisites: NUTR 334, NUTR 335, NUTR 436.

Provides training in basic evidence-based nutrition interviewing and counseling strategies that are characterized by a collaborative counselor-client relationship to establish food/nutrition priorities, goals and individualized action plans. Supervised counseling is conducted at sites on and off campus.

Letter grade only (A-F). (2 hours seminar, 3 hours clinical activity.)

**438A. Medical Nutrition Therapy I (3)**  
Prerequisites: NUTR 335, NUTR 436

The Nutrition Care Process and evidence-based practice are applied to specific pathophysiological conditions. The application of this process includes nutrition assessment, nutrition diagnosis, nutrition intervention, and nutrition monitoring and evaluation.

Letter grade only. (A-F). (2 hours of lecture activities and 2 hours of technical activities and lab)

**438B. Medical Nutrition Therapy II (3)**  
Prerequisites: NUTR 438A.

The Nutrition Care Process and evidence-based practice are applied to specific pathophysiological conditions. The application of this process includes nutrition assessment, nutrition diagnosis, nutrition intervention, and nutrition monitoring and evaluation.

Letter grade only (A-F). (2 hours of lecture activities and 2 hours of technical activities and lab)
439. Nutrition and Aging (3)
Prerequisites: NUTR 132 or BIOL 207 or BIOL 301 or GERN 400 or consent of instructor.
Nutritional needs as related to physiological changes that occur during aging. Factors that influence food intake and nutritional status of the elderly. Diet adaptation for chronic diseases commonly found in older adults.
Letter grade only (A-F). Same course as GERN 439. Not open for credit to students with credit in GERN 439. (Lecture-discussion 3 hours)

461. Community Nutrition (3)
Prerequisites: NUTR 331, NUTR 334, NUTR 336.
Survey of nutrition programs in the community. Techniques of program planning, implementation, management and evaluation.
Letter grade only (A-F). (Lecture-activity 3 hours)

468. Nutrition for Exercise and Performance (3)
Prerequisites: NUTR 132, KIN 301 for the KIN Fitness option and the KIN Exercise Science option or BIOL 207 for the Nutrition and Dietetics option.
Explores the role nutrients play in exercise and performance enhancement. Topics include evaluation of energy needs during physical activity, examination of weight management practices, assessment of nutritional status, and investigation of contemporary dietary issues related to exercise.
Letter grade only (A-F). Same course as KIN 468. Not open for credit to students with credit in KIN 468. Open to Kinesiology undergraduate students in the Fitness and Exercise Science options and to the Nutrition and Dietetics option in Family and Consumer Sciences.

492K. Internship in Nutrition and Dietetics (3)
Prerequisites: Student must be a Family and Consumer Sciences: Nutrition and Dietetics major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Nutrition and Dietetics; and HFHM 275 and FSCI 332. Each prerequisite course must be completed with a grade of "C" or better. A course in which a grade lower than "C" is received must be retaken and successfully completed prior to enrolling in any course for which it is a prerequisite. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator.
Field experience in which student assumes a preprofessional role in a professional setting. Objectives developed by student with supervisor must be approved by major advisor and form the basis for evaluation.
May be repeated for 6 units maximum. (Seminar 3 hours)

498A. Senior Seminar for Dietetics I (1)
Prerequisite: NUTR 436.
Designed to prepare dietetic students for the transition from student to internship, graduate school, and/or career and to develop selected professional skills.
Letter grade only. (A-F). (1 hour seminar)

498B. Senior Seminar for Dietetics II (1)
Prerequisite: NUTR 498A.
Designed to showcase the outcomes of the nutrition program by presenting students’ portfolios, engaging in networking, and completing the senior assessment and survey of the DPD program.
Letter grade only. (A-F). (1 hour seminar).
Introduction
The Ocean Studies Institute was created in 1972 to coordinate teaching, research and community service in ocean studies on member campuses. Members include Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Bernardino, and San Marcos. The Institute does not offer degrees, but it serves as an administrative liaison to facilitate degree programs offered on member campuses.

The Institute operates a 76-foot research vessel for teaching and research purposes, obtains research grants and contracts, performs research, and is responsible for curriculum planning and facilities acquisition. Presently the Institute serves over 35 departments across eight campuses.

The courses and research in which the Institute is actively engaged reflect the broad applied approach of interdisciplinary, mission-oriented projects in harbors and the coastal zone.

Courses (OSI)

UPPER DIVISION

417./517. Marine Benthic Invertebrates of Santa Catalina Island (4)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517)
Topics include benthic community structure and function, benthic-pelagic coupling, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

419./519. Marine Ichthyology (4)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519)
Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

425./525. Marine Phycology (4)
Prerequisite: BIOL 211, BIOL 212, BIOL 213. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525)
Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

455./555. Marine Ecological Processes (4)
Prerequisite: BIOL 350 and consent of instructor; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555)
Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.
Letter grade only (A-F). (Lecture 2 hrs., field 6 hrs.)

490./590. Selected Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590)
Topics from selected areas of Ocean Studies. Topic content will vary from section to section.
Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490 and/or 590 limited to 6 units. Topics announced in the Schedule of Classes. (Lecture 1-3 hrs.)

490L./590L. Selected Topics in Ocean Studies Laboratory (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L)
Topics from selected areas of Ocean Studies.
Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490 and/or 590L limited to 6 units. Topics announced in the Schedule of Classes. (Laboratory 3-9 hrs.)

496. Undergraduate Directed Research (1-3)
Prerequisite: Consent of instructor. Not available to graduate students.
Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a mini-symposium and a report.
Letter grade only (A-F).

GRADUATE LEVEL

517./417. Marine Benthic Invertebrates of Santa Catalina Island (4)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 417; graduates enroll in OSI 517)
Topics include benthic community structure and function, benthic-pelagic coupling, animal-sediment relationships, animal interactions, and marine pollution ecology. Laboratory emphasis will be on identification of local forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

519./419. Marine Ichthyology (4)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 419; graduates enroll in OSI 519)
Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

525./425. Marine Phycology (4)
Prerequisite: BIOL 211, BIOL 212, BIOL 213. (Undergraduates enroll in OSI 425; graduates enroll in OSI 525)
Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

590. Selected Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590)
Topics from selected areas of Ocean Studies. Topic content will vary from section to section.
Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490 and/or 590 limited to 6 units. Topics announced in the Schedule of Classes. (Lecture 1-3 hrs.)

590L. Selected Topics in Ocean Studies Laboratory (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L)
Topics from selected areas of Ocean Studies.
Letter grade only (A-F). May be repeated to a maximum of 6 units with the consent of instructor. Maximum credit for OSI 490 and/or 590L limited to 6 units. Topics announced in the Schedule of Classes. (Laboratory 3-9 hrs.)
555./455. Marine Ecological Processes (4)
Prerequisite: BIOL 350 and consent of instructor; statistics recommended. (Undergraduates enroll in OSI 455; graduates enroll in OSI 555)
Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects.
Letter grade only (A-F). (Lecture 2 hrs., laboratory and field 6 hrs.)

590./490. Selected Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490; graduates enroll in OSI 590)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
Letter grade only (A-F). May be repeated to a maximum of 6 units with consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the Schedule of Classes. (Lecture 1-3 hrs.)

590L./490L. Selected Topics in Ocean Studies Laboratory (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in OSI 490L; graduates enroll in OSI 590L)
Topics from selected areas of Ocean Studies. Course content will vary from section to section.
Letter grade only (A-F). May be repeated to a maximum of 6 units with consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to 6 units. Topics announced in the Schedule of Classes. (Laboratory 3-9 hrs.)

697. Directed Research (1-3)
Prerequisite: Consent of instructor and graduate standing.
Independent research to be conducted under the supervision of a Catalina Semester instructor. Students develop their ideas during the first 12 weeks of the semester, prepare a research proposal, complete their studies, and present their findings in a mini-symposium and a report.
Letter grade only (A-F).
Certificate in Peace and Social Justice Studies

This certificate is designed for students who are concerned about issues of peace and social justice in contemporary society. It is founded on the principle that peace requires not only the absence of violence but also the presence of justice.

This certificate can be earned in conjunction with any baccalaureate or graduate degree, can be earned through the General Education Pathway in Conflict & Peace Studies while simultaneously meeting all general education requirements.

Requirements

Twenty-four (24) units in a program approved by the Director of Peace Studies, to include the following:

1. Core Theory Course (3 units):
   - Take one of the following:
     - I/ST 317, POSC 371

2. Core Skills Course (3 units):
   - Take the following:
     - COMM 411

3. Elective Courses (15 units):
   - Take at least one course from each of the following groups, and one additional course from any group.
     - **Group A: Perspectives on Peace, Conflict, Violence, and War** (3 units minimum):
       - ANTH 305; COMM 490; CRJU 101; HIST 304, 377; HIST 495; I/ST 318, I/ST 355; POSC 371, POSC 455; PHIL 351; PSY 350
     - **Group B: Laws, Rights, Responsibilities in Peace and Conflict** (3 units minimum):
       - COMM 441; PHIL 352; POSC 412
     - **Group C: Culture, Race, Gender Influences on Peace and Conflict** (3 units minimum):
       - ANTH 315, ANTH 311; AFRS 325; COMM 330, 412; HIST 309; LING 470; SOC 346; HIST 490F; WGSS 401, WGSS 430
     - **Group D: Empowerment and Peace-Building** (3 units minimum):
       - COMM 410, COMM 421; CAFF 309; FEA 486; NRSG 481; PSY 336; SOC 427; SW 423

4. Peace Project (3 units, optional):
   - Students in the Certificate program only should complete three units of an independent study project during their senior year with any Peace Studies faculty. Students who are simultaneously completing the General Education pathway in Conflict & Peace Studies need to take an additional 300- or 400-level GE course from groups A, B, C, or D above to complete the 24 required units in this Certificate.

Exceptions or substitutions may be made only with the approval of the Director of the Peace Studies Program.
Undergraduate Programs

Bachelor of Arts in Philosophy (120 units)

Requirements

A minimum of 36 units in philosophy divided as follows:

Lower Division:

Take all the following courses:

PHIL 203 History of Early Philosophy (3)  
Prerequisite: GE Foundation requirements.

PHIL 204 History of Modern Philosophy (3)  
Prerequisite: GE Foundation requirements.

PHIL 270 Symbolic Logic I (3)  
Prerequisite: None

A maximum of 12 lower-division (100- or 200-level) units may be counted toward the major. In addition to the nine units from the three required 200-level courses listed above, students may count any lower division Philosophy course toward the major, aside from PHIL 170 (Critical Reasoning).

Upper Division:

A minimum of 24 units in philosophy, including at least two courses (6 units) from each of the following groups:

History of Philosophy:

PHIL 306, PHIL 307, PHIL 413, PHIL 414, PHIL 416, PHIL 418, PHIL 419, PHIL 421, PHIL 422, PHIL 423, PHIL 425, PHIL 490, PHIL 491, PHIL 492

Logic, Metaphysics, Epistemology:

PHIL 330, PHIL 342, PHIL 381, PHIL 382, PHIL 482, PHIL 483, PHIL 484, PHIL 493

Values and Evaluation:

PHIL 351, PHIL 352, PHIL 361, PHIL 363, PHIL 401, PHIL 403, PHIL 405, PHIL 451, PHIL 489, PHIL 496

The required 6 upper-division units remaining are to be selected from philosophy courses with the advice and consent of the student’s departmental advisor, and may include PHIL 497H and PHIL 498H.

Pre-Law Emphasis

The pre-law emphasis requires the same minimum 36 units required for the major. Prelaw students should include at least four of the following in their course of study:

PHIL 351, PHIL 352, PHIL 363, PHIL 451, PHIL 489.

Honors in Philosophy

The Honors in Philosophy program provides qualified undergraduate philosophy majors with an opportunity to do independent research with a faculty member on a topic of interest to the student and to present the results of that study to other students in a seminar format. The Program has two curricular components:

1. a year-long, two-semester directed studies course (PHIL 498H: Undergraduate Honors Thesis) in which the student learns about advanced research techniques and writes an undergraduate thesis under the close supervision of a faculty member, and

2. a seminar (PHIL 497H: Undergraduate Honors Seminar) in which honors students meet weekly to discuss work in progress and present a final thesis. The Seminar is designed each year with readings, discussions, and critiques of student work around the themes of the honors student theses projects that year.

To be eligible for the program, students must:

A. have a 3.5 GPA in the philosophy major and a 3.0 GPA overall;

B. successfully complete all lower-division courses for the major (PHIL 203, PHIL 204, and PHIL 270);

C. successfully complete at least nine (9) units of upper-division philosophy courses (at least six [6] units at CSULB);

D. obtain written agreement from a philosophy faculty member to serve as the Honors Thesis Advisor.

Students enroll in PHIL 498H (Undergraduate Honors Thesis) in Fall and Spring (3 units each semester), and in PHIL 497H (Undergraduate Honors Seminar) in Spring (3 units), for a total of 9 units in the program. Students who have been admitted to the honors program and have successfully completed these requirements, along with the regular requirements for the Major in Philosophy, will graduate with Honors in Philosophy.

Minor in Philosophy

The minor in philosophy provides a structured yet flexible program for the student majoring in a different discipline, but who is interested in philosophy.

The Minor in Philosophy is available to any non-Philosophy major.

Requirements

A minimum of 18 units in Philosophy. No more than nine units can come from lower-division (100- and 200-levels) Philosophy courses, with only three units from the 100-level allowed. All upper-division (300- and 400-levels) Philosophy courses count toward the required 18 units.
Graduate Programs

Master of Arts in Philosophy

The candidate must satisfy the general requirements stated in this catalog as well as the specific departmental requirements described here and more fully in the Philosophy Graduate Student Handbook (available upon request). Applicants must submit to the University’s Office of Admissions and Records a graduate application (available at that office or on-line). Applicants must also submit a transcript from all colleges and universities attended to the Office of Enrollment Services. Prospective students should see the Graduate Advisor for assessment and to plan a program of study. Departmental reader positions are sometimes available for qualified persons, as are Graduate Assistantships. Application for these positions can be made to the Chair of the Philosophy Department.

Admission with Classified Status

An applicant may be admitted to the MA program in Philosophy in classified status (see the relevant sections in the Catalog under “Graduate and Post-baccalaureate Applicants”) only after satisfying University requirements for admission and the following prerequisites to this degree:

1. A bachelor’s degree with a minimum of 24 units of upper division philosophy courses. These courses must be comparable to those required for the BA in philosophy at this University, and must indicate proficiency in the general areas of epistemology, metaphysics, ethics, and symbolic logic. Deficiencies to be rectified will be determined by the Graduate Advisor after consultation with the student and after study of transcript records.
2. Satisfactory performance on the Department’s Basic Qualifying Exam (BQE).

Admission with Conditionally Classified Status

Until students have met the requirements for classified status, they may be admitted and attend the university with conditionally classified status. Conditionally classified students who at entry to the philosophy program as a graduate student have been determined to have no deficiencies in prerequisite preparation must attempt the Basic Qualifying Exam (BQE) by the end of their second (academic year) semester in the program and pass it by the end of their third (academic year) semester in order to achieve classified status. Conditionally classified students who must rectify a deficiency must attempt the BQE by the end of their third (academic year) semester in the program and pass it by the end of their fourth (academic year) semester in order to achieve classified status. (Winter Term and Summer Session do not count as academic year semesters.)

Basic Qualifying Exam

The BQE comprises two sections (analytic, text) that assess the graduate student’s philosophical foundation and knowledge. The analytic section of the BQE assesses the student’s ability to extract, explain, and evaluate arguments from short passages. In reconstructing and evaluating these arguments, the student must demonstrate an understanding of basic logical concepts, such as validity, soundness, and cogency. The text section of the BQE assesses the student’s ability to read, interpret, and critically evaluate a more lengthy philosophical text. Successfully passing the text section also requires general philosophical and historical knowledge, insofar as these are relevant to the contextual understanding of the text.

Students may attempt one or both sections of the BQE on those occasions when it is administered. Normally, students must pass both parts of the BQE by their second attempt. The BQE must be passed in order for students to achieve classified status in the graduate program.

Advancement to Candidacy

Advancement to Candidacy is the next step after acquiring classified status (and cannot take place until then) and confers catalog rights to graduate students. Advancement to Candidacy also signifies approval of a plan of study by the student’s department and college. The requirements for advancement, which must be achieved at least one semester prior to graduation and can only occur in a semester in which the student is enrolled, are:

1. Fulfillment of the CSULB Graduate Writing Assessment Requirement (GWAR).
2. Maintenance of a minimum 3.0 overall grade point average in all units undertaken in the philosophy program.
3. Approval of a program of study by the Graduate Advisor, which must include satisfactory performance in the proseminar, and approval by the department faculty of either a thesis proposal or a proposed set of three comprehensive examinations (see the Graduate Student Handbook for details).
4. Although there is no formal language requirement, the philosophy department may require the student to demonstrate a foreign language proficiency if a language proficiency is appropriate to the area of study.

Requirements for the Degree

1. The student’s graduate program must consist of not less than 30 units of acceptable upper division and graduate courses, of which at least 24 units must be in philosophy. The remaining 6 units must be chosen in consultation with the student’s Faculty Advisor and Graduate Advisor and may be taken either in Philosophy or in another field of study closely related to the candidate’s educational objectives. The program must include a minimum of 21 units of philosophy graduate courses, with a minimum of 9 units from the 600 series. Students must enroll in PHIL 610 in the first semester in which the course is offered after they are conditionally classified. PHIL 697 and 698 may not count toward fulfillment of the 600 series minimum requirement.

2. A thesis and oral defense thereof, or a set of three comprehensive examinations. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)
The Center for Medieval and Renaissance Studies

Undergraduate students can pursue a Certificate or a minor in Medieval and Renaissance Studies. Graduate students can pursue a Certificate in Medieval and Renaissance Studies. Interested students should turn to the catalog section entitled “Medieval and Renaissance Studies” and/or contact the program directors in MHB 512.

Courses (PHIL)

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<tr>
<th>Lower Division</th>
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<tbody>
<tr>
<td><strong>100. Introduction to Philosophy (3)</strong></td>
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<tr>
<td>Prerequisites/Corequisites: Any course from GE Foundation categories A.1 (Written English), A.2. (Oral Communication) or A.3. (Critical Thinking).</td>
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<tr>
<td>Critical analysis of the history, methods, and major problems of philosophy.</td>
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<tr>
<td><strong>170. Critical Reasoning (3)</strong></td>
</tr>
<tr>
<td>Prerequisite/Corequisite: GE Foundation requirements Category A.1 (Written English).</td>
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<tr>
<td>Elements of clear, straight, orderly and valid thought, including deductive and inductive reasoning and the accurate use of language. Explores practical applications of logic.</td>
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<tr>
<td><strong>204. History of Modern Western Philosophy (3)</strong></td>
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<tr>
<td>Prerequisite: GE Foundation requirements. Western philosophy from Descartes to Kant, including the development of modern scientific processes, and the philosophical systems of empiricism, rationalism, transcendental idealism, etc.</td>
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<tr>
<td><strong>270. Symbolic Logic I (3)</strong></td>
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<tr>
<td>Introduction to the formal techniques of evaluating arguments.</td>
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<tr>
<th>Modern Tradition</th>
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<tbody>
<tr>
<td>413./513. Continental Rationalism</td>
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<tr>
<td>414./514. British Empiricism</td>
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<tr>
<td>423./523. Kant</td>
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<td>424./524. Hegel</td>
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<tr>
<td>425./525. Wittgenstein</td>
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<td>419./519. Analytic Philosophy</td>
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<tbody>
<tr>
<td>330. Philosophy of Religion</td>
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<tr>
<td>342. Metaphysics</td>
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<tr>
<td>483./583. Philosophical Psychology</td>
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<td>493./593. Selected Topics - Metaphysical Studies</td>
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<tr>
<th>Epistemological Studies</th>
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<tbody>
<tr>
<td>381. Philosophy of Science</td>
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<tr>
<td>382. Theory of Knowledge</td>
</tr>
<tr>
<td>482. Introduction to Cognitive Science</td>
</tr>
</tbody>
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<tr>
<th>Studies in Logic and Semantics</th>
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<td>484./584. Philosophy of Language</td>
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<tr>
<th>Studies in Value and Evaluation</th>
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<tbody>
<tr>
<td>351. Political Philosophy</td>
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<tr>
<td>352. Philosophy of Law</td>
</tr>
<tr>
<td>361. Philosophy of Art and Beauty</td>
</tr>
<tr>
<td>363. Ethical Theory</td>
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<tr>
<td>400. Business Ethics</td>
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<tr>
<td>401. Philosophy in Education</td>
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<tr>
<td>403. Medical Ethics</td>
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<tr>
<td>405. Philosophy in Literature</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>489. Philosophy Internship/Pre-Law</td>
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<tr>
<td>496./596. Selected Topics – Value and Evaluation</td>
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Early Philosophy

306. Philosophies of China and Japan
307. Philosophies of India
421./521. Plato
422./522. Aristotle
490./590. Select Topics – Early Philosophy
UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

306. Philosophies of China and Japan (3)
Prerequisite: GE Foundation requirements.
Historical and critical study of the philosophical thought of China and Japan.

307. Philosophies of India (3)
Prerequisite: GE Foundation requirements.
Historical and critical survey with emphasis on basic ideas and traditions.

330. Philosophy of Religion (3)
Prerequisite: GE Foundation requirements.
Nature and function of religion and of fundamental religious concepts and ideals.

342. Metaphysics (3)
Prerequisite: Three units of philosophy or consent of instructor.
Problems of ontology and cosmology including such concepts as matter and energy, time and space, evolution and causality.

351. Political Philosophy (3)
Prerequisites: Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Analysis of fundamental political concepts such as the legitimacy of government, the relation of justice to coercive power, the morality of war, political obligation, and sovereignty; and/or a study of political ideologies such as socialism, classical liberalism, and conservatism.

352. Philosophy of Law (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of the historical development of the philosophy of law and examination of the problems in the field ranging from general theories to analysis of fundamental legal concepts and normative issues.

361. Philosophy of Art (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Discussion of central problems in aesthetics, such as possibility of objectivity in criticism, modern and traditional definitions of a work of art, truth and meaning in the fine arts, natural beauty and its relationship to excellence in music, architecture, etc.

363. Ethical Theory (3)
Prerequisite: GE Foundation requirements; 3 units of philosophy.
In-depth discussion of such issues as obligation, responsibility, social justice, and personal ideals.

381. Philosophy of Science (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Problems, methods and fundamental concepts of the sciences, including the relationships of the sciences to each other, to mathematics and to philosophy.

382. Theory of Knowledge (3)
Prerequisite: Three units of philosophy.
Investigation of such concepts as knowledge, belief, certainty. Critical study of theories concerning such issues as our knowledge of the external world, the past, other minds.

400. Business Ethics (3)
Prerequisites: GE Foundation requirements, at least one Explorations course.
Study of types of ethical dilemmas that take place in business organizations. Acquire concepts and tools needed to manage these complex value conflicts for the well being of individuals, organizations, and society.
Letter grade only (A-F). Same course as CBA 400. Not open for credit to students with credit in CBA 400.

401. Philosophy in Education (3)
Prerequisites: GE Foundation; at least a 3.0 GPA across all units attempted; at least 15 units of philosophy at the 200-level or higher with a 3.0 GPA across all units attempted in philosophy; and consent of instructor.
Examine philosophical works on education, analyze common exclusion of philosophy from K-12 curriculum, explore integration of philosophy into K-12 curriculum. Student is placed in local school district to lead weekly philosophy sessions. Service Learning.
May be repeated to a maximum of 6 units in different semesters.

403. Medical Ethics (3)
Prerequisites: GE Foundation requirements; at least one Exploration course.
Covers main areas of bioethics: reproductive rights and liberties, definitions of health, disease, and disability, end of life care, distribution of health care, goals of health care. Philosophical texts, journal articles from medical humanities, ethics, medicine, and case studies used.

405. Philosophy in Literature (3)
Prerequisites: Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Intensive exploration of philosophical ideas in selected literature with special attention to both philosophical and literary ways of reading and appreciating a text.
Not open for credit to students with credit in PHIL 305.

413./513. Continental Rationalism (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Descartes, Spinoza and Leibniz.

414./514. British Empiricism (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Locke, Berkeley, and Hume.

416./516. Pragmatism (3)
Prerequisite: Three units of philosophy or consent of instructor.
Development of pragmatism as exemplified in the philosophies of Peirce, James, Dewey and Mead.

418./518. Existentialism (3)
Prerequisites: Three units of philosophy or consent of instructor.
Intensive study of such issues as self-as-existence, freedom and responsibility in their ethical, religious, political and aesthetic dimensions. Philosophers treated may include Kierkegaard, Nietzsche, Marcel, Jaspers, Sartre and Camus.
419./519. Analytic Philosophy (3)
Prerequisites: Six units of philosophy to include PHIL 270, or consent of instructor.
Analysis of major movements in development of Anglo-American philosophy in the twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Study of contributions of such philosophers as Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, Strawson, and Quine.
Letter grade only (A-F).

421./521. Plato (3)
Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Plato’s thought, based primarily on readings from his works.

422./522. Aristotle (3)
Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Aristotle’s thought, based primarily on readings from his works.

423./523. Kant (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Intensive study of Kant’s Critique of Pure Reason.

424./524. Hegel (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Study of Hegel’s Philosophy of Mind and Logic, and selected writings by Hegel and other topics.

425./525. Wittgenstein (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of the later philosophy of Wittgenstein, centering on Philosophical Investigations.

451. Liberty and Justice: Race, Ethnicity, and Gender in American Law (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing; and 6 units of philosophy, or consent of instructor. Junior standing required; Senior standing recommended. 
Philosophical and legal analysis of how liberty and justice for different races, ethnic groups and genders have been treated in American law.

455./555. Philosophical Perspectives on Sex and Love (3)
Prerequisite: Six units of philosophy or consent of instructor. 
Philosophical perspectives on sex and love explores philosophical issues concerning sex, gender and love through readings and discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination. 
Same course as WGSS 455. Not open for credit to students with credit in W/ST 455 or WGSS 455.

482. Introduction to Cognitive Science (3)
Prerequisites: GE Foundation requirements; at least one Explorations course; upper-division standing; at least six units in two areas chosen from Computer Science, Linguistics, Philosophy, and Psychology.
Introduction to cognitive science including historical development, foundational philosophical presuppositions, core topics, underlying theoretical framework, explanatory goals, different methodologies and theoretical contributions of its constitutive disciplines. 
Same course as PSY 382. Not open for credit to students with credit in PSY 382.

483./583. Philosophical Psychology (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Nature of the mind. Psychological concepts such as intention, consciousness, action, motive, imagination, belief and purpose.

484./584. Philosophy of Language (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Philosophical thought about language and meaning.

489. Philosophy Internship/Pre-Law (3-6)
Prerequisites: Consent of Philosophy Department Chair; completion of a minimum of 15 upper-division units required for the Philosophy major.
Internship with private organizations and governmental agencies. Work done under the joint supervision of the program sponsor and CSULB Philosophy Pre-Law Advisor. Mid-term, final report and internship conferences are required. (Activity 9 hours)

490./590. Selected Topics - Early Philosophy (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Detailed and intensive study of figures, periods or issues in ancient or medieval philosophy. 
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

491./591. Selected Topics - Modern Tradition (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Detailed and intensive study of a significant philosopher or of some issue or theme of the modern (1600-1900) philosophical era. 
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

492./592. Selected Topics - Twentieth Century Philosophy (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Detailed and intensive study of a significant philosopher or of a school or movement of the twentieth century. 
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

493./593. Selected Topics - Metaphysical Studies (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Seminar study of a selected metaphysical topic. Sample topics: Time, Personal Identity, Philosophical Theology, Philosophy of Action, Process Philosophy. 
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

496./596. Selected Topics - Value and Evaluation (3)
Prerequisites: Six units of philosophy or consent of instructor. 
Seminar study of a selected topic in value or evaluation. Sample topics: Theories of Value, Freedom and Determinism. 
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

497H. Undergraduate Honors Seminar (3)
Prerequisites: 1) Admission to the undergraduate Honors Program in Philosophy. 2) Undergraduate Honors Thesis (PHIL 498) or (with consent of instructor) taken concurrently.
A capstone seminar designed to prepare exceptional undergraduate majors for graduate studies in philosophy and other disciplines. 
Complements Undergraduate Honors Thesis (PHIL 498). 
Letter grade only (A-F).
498H. Undergraduate Honors Thesis (3)
Prerequisites: Admission to the undergraduate Honors Program in Philosophy.
Directed Studies course on a topic chosen by students in consultation with their Honors Thesis Director. Students register for thesis credits both fall and spring terms. Students are also required to register for Phil 497H during the spring term.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

513./413. Continental Rationalism (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Descartes, Spinoza and Leibniz.
Letter grade only (A-F).

514./414. British Empiricism (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of such major figures as Locke, Berkeley, and Hume.
Letter grade only (A-F).

516./416. Pragmatism (3)
Prerequisite: Three units of philosophy or consent of instructor.
Development of pragmatism as exemplified in the philosophies of Peirce, James, Dewey and Mead.
Letter grade only (A-F).

518./418. Existentialism (3)
Prerequisites: Three units of philosophy or consent of instructor.
Intensive study of such issues as self-as-existence, freedom and responsibility in their ethical, religious, political and aesthetic dimensions. Philosophers treated may include Kierkegaard, Nietzsche, Marcel, Jaspers, Sartre and Camus.
Letter grade only (A-F).

519./419. Analytic Philosophy (3)
Prerequisites: Six units of philosophy to include PHIL 270, or consent of instructor.
Analysis of major movements in development of Anglo-American philosophy in the twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Study of contributions of such philosophers as Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, Strawson, and Quine.
Letter grade only (A-F).

521./421. Plato (3)
Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Plato’s thought, based primarily on readings from his works.
Letter grade only (A-F).

522./422. Aristotle (3)
Prerequisites: Six units of philosophy to include PHIL 203, or consent of instructor.
Close study of Aristotle’s thought, based primarily on readings from his works.
Letter grade only (A-F).

523./423. Kant (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Intensive study of Kant’s Critique of Pure Reason.
Letter grade only (A-F).

524./424. Hegel (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Study of Hegel’s Philosophy of Mind and Logic, and selected writings by Hegel and other topics.
Letter grade only (A-F).

525./425. Wittgenstein (3)
Prerequisites: Six units of philosophy to include PHIL 204, or consent of instructor.
Close study of the later philosophy of Wittgenstein, centering on Philosophical Investigations.

555./455. Philosophical Perspectives on Sex and Love (3)
Prerequisites: Six units of philosophy or consent of instructor.
Philosophical perspectives on sex and love explore philosophical issues concerning sex, gender and love through readings and discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination are examined.

583./483. Philosophical Psychology (3)
Prerequisite: Six units of philosophy or consent of instructor.
Nature of the mind. Psychological concepts such as intention, consciousness, action, motive, imagination, belief and purpose.
Letter grade only (A-F).

584./484. Philosophy of Language (3)
Prerequisites: Six units of philosophy or consent of instructor.
Philosophical thought about language and meaning.
Letter grade only (A-F).

590./490. Selected Topics - Early Philosophy (3)
Prerequisites: Six units of philosophy or consent of instructor.
Study of figures, periods or issues in ancient or medieval philosophy.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

591./491. Selected Topics - Modern Tradition (3)
Prerequisites: Six units of philosophy or consent of instructor.
Study of a significant philosopher, or of some issue or theme of the modern (1600-1900) philosophical era.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

592./492. Selected Topics - Twentieth Century Philosophy (3)
Prerequisites: Six units of philosophy or consent of instructor.
Study of a significant philosopher or of a school or movement of twentieth century.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

593./493. Selected Topics - Metaphysical Studies (3)
Prerequisites: Six units of philosophy or consent of instructor.
Seminar study of a selected metaphysical topic.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.
596/496. Selected Topics - Value and Evaluation (3)
Prerequisites: Six units of philosophy or consent of instructor.
Seminar of selected topic in value or evaluation. Sample topics: Theories of Value, Freedom and Determinism.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

599. Graduate Tutorial (1-3)
Prerequisite: Six units of Philosophy or consent of instructor.
Supervised independent study.
Seniors with a GPA of 3.0 or better may enroll with consent of department. May be repeated to a maximum of 6 units. Letter grade only (A-F).

610. Proseminar (3)
Prerequisite: Classified or Conditionally Classified Status in Philosophy
Introduction to graduate-level philosophy, with emphasis on basic level skills in analysis, research, and composition. Content varies.
Letter grade only (A-F).

620. Selected Topics - History of Philosophy (3)
Prerequisite: Consent of instructor.
Close study of selected subjects in the history of philosophy. The original language may be required.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

630. Selected Topics - Philosophy of Religion (3)
Prerequisite: PHIL 330 or consent of instructor.
Critical examination of selected issues, figures and movements.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

640. Seminar in Metaphysics (3)
Prerequisites: Graduate standing; any conditions or deficiencies levied on admission must be rectified.
Supervised research and discussion on recurrent metaphysical problems and systems on the basis of selected works.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

663. Selected Topics - Ethics (3)
Prerequisite: PHIL 363 or consent of the instructor.
Systematic examination of topics (such as human rights, pleasure) and theories (such as utilitarianism, contract theory) which are central to moral reasoning.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

680. Selected Topics - Epistemology (3)
Prerequisite: PHIL 382 or consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

681. Selected Topics - Philosophy of Science (3)
Current issues in the philosophy of science.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

690. Selected Topics - Current Interest in Philosophy (3)
Presentation, discussion and critical evaluation of advanced work (which may include original research of faculty and graduate students) in selected topics of current interest to professional philosophers.
Letter grade only (A-F). May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.

697. Directed Research (1-3)
Prerequisites: Classified Status and consent of student's advisor or Graduate Advisor.
Intended for preparation of the prospectus for the thesis option or preparation and completion of comprehensive exams in Philosophy.
Letter grade only (A-F).

698. Thesis (1-6)
Prerequisites: Consent of student's advisor or graduate advisor, and advancement to candidacy.
Preparation and completion of a thesis in philosophy and oral defense thereof.
PHYSICAL THERAPY
College of Health and Human Services

Department Chair: Jody Cormack
Department Office: Engineering Technology Building, Room 130
Telephone: (562) 985-4072
Faculty: George Beneck, Joyce Campbell, Kay Cerny, Jody Cormack, Kristin De Mars, Vennila Krishnan, Ofaf Mohamed, Jeff Rodrigues, Albert C. Russo, Nina Surber, Hsiang-Ling (Sharon) Teng
Department Coordinators: Gloria Dacanay, Michelle Ramirez

Doctor of Physical Therapy

The program is designed to prepare the student for entry-level doctoral practice as a physical therapist. Graduates are employed in a variety of settings, including hospitals, rehabilitation centers and private physical therapy clinics. The Doctor of Physical Therapy program is open to all college graduates who have met prerequisite requirements and demonstrate sufficient preparation, potential for professional education and ability to perform the essential functions needed to practice as a physical therapist as determined by physical therapy faculty review of admission documents. Admission shall be granted on a competitive basis; meeting the admission requirements qualifies an individual for, but does not guarantee admission to the program.

Admission Requirements

1. Complete the university application to be admitted with graduate standing by the deadline of January 15 and complete the PTCAS application by the application deadline November 1 for admission the following summer.
2. Submit to the university and PTCAS results of the General Aptitude Section of the Graduate Record Examination (quantitative, verbal, and analytical), taken within the past 5 years.
3. Provide PTCAS with three letters of recommendation attesting to the potential for success as a physical therapist and/or the scholarly potential of the applicant;
   • At least one letter must be from a physical therapist with whom the applicant had a professional association, and
   • One from a professor for a prerequisite course which the applicant completed.
   • If the applicant previously has been employed, the third letter should be from an employer.
   • If the applicant previously has not been employed, the third letter should be from a physical therapist with whom the applicant had a professional association.
4. Provide documentation of knowledge of physical therapy through a minimum of 100 documented hours of paid or volunteer experience under the direct supervision of a licensed physical therapist; and
5. Provide a written statement of purpose reflecting the applicant's commitment to physical therapy.
6. Meet prerequisite requirements

Prerequisites

1. Hold, or be eligible to hold, an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation as determined by an appropriate campus authority, by the end of the spring semester prior to admission to the program.
2. Have attained a cumulative grade point average of at least 3.0 (A=4.0).
3. Have been in good academic, professional, and clinical standing at the last institution and if applicable in the last entry-level physical therapist educational program attended.
4. Successfully have completed the following courses with a minimum of "C" and a minimum grade point average of 3.0 by the end of the fall semester prior to the year of admission to the program. No course may be repeated more than once and no more than 3 prerequisite courses may be repeated. CR/NC grades, correspondence courses, or independent study courses cannot be used for prerequisite requirements. Only 2 classes may be in progress during the fall semester of application and all prerequisite courses must be completed by the end of the Fall semester of application.

Natural Sciences:
Take all of the following courses:
CHEM 111A General Chemistry (5)
    Prerequisites: A passing score on the Chemistry Placement Examination.
    Co-requisite: MATH 109 or higher.
CHEM 111B General Chemistry (5)
    Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.
PHYS 100A General Physics (4)
    Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 120 or MATH 122.
PHYS 100B General Physics (4)
Prerequisites: MATH 109 or MATH 113 or MATH 119A or MATH 120 or MATH 122; PHYS 100A.

Biological Sciences:
Take all of the following courses:
BIOL 208 Human anatomy (4)
    Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.
BIOL 211 Introduction to Evolution and Diversity (4)
    Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

Take either the following courses:
BIOL 212 Introduction to Cell and Molecular Biology (4)
    Prerequisites: Completion of BIOL 211 and CHEM 111A with grades of "C" or better.
    Prerequisite/Corequisite: CHEM 111B

Take either the following courses:
BIOL 207 Human Physiology (4)
    Prerequisites: GE Foundation requirements.
    or
BIOL 213 Introduction to Ecology and Physiology (4)
    Prerequisites: BIOL 211, BIOL 212, CHEM 111B, each with a grade of "C" or better.
Biostatistics:
Take the following:
BIOL 260 Biostatistics (3) (preferred)
Prerequisites: BIOL 201 or BIOL 207 or BIOL 211 or MIRC 200; MATH 111 or MATH 113 or MATH 119A or MATH 122 all with a grade of "C" or better.

Behavioral Sciences:
Take the following:
PSY 100 General Psychology (3)
Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

Admission shall be granted on a competitive basis; meeting the admission requirements qualifies an individual for, but does not guarantee admission to the program.

Retention
1. Maintain a 3.0 or better grade point average in all graduate work completed.
2. Make continuous satisfactory progress toward the degree objective.

Advancement to Candidacy
1. Satisfy the general University requirements for advancement to candidacy.
2. Obtain classified status.
3. Have earned a minimum 3.0 grade-point average in all program graduate work as well as a minimum overall 3.0 in all graduate work attempted.
4. Fulfill the Graduation Writing Assessment Requirement (GWAR) by scoring 11 or higher on the Writing Proficiency Exam (WPE) or earning a score of 4.0 on the Analytical Writing Component of the GRE.
5. Complete a minimum of one semester (fall session) of graduate level coursework in the program.
6. Be enrolled during the term in which advancement to candidacy takes place.
7. Obtain approval for one’s individual program plan from the Graduate Advisor and then from the Associate Dean of the College of Health and Human Services.

Qualifying Assessment
3. Demonstrate adherence to the essential physical, emotional and professional practice expectations of a physical therapist in the classroom and clinic (entry level on CPI skills 1 and 2 for DPT 781, acceptable practice in DPT 731, DPT 733 and DPT 741)

Requirements for Clinical Coursework
Criminal background check, health insurance, titers and immunizations, medical clearance, malpractice insurance, CPR certification (lifesaving course with lab), and adhering to the department essential functions are required for clinical coursework.

Admittance to Terminal Clinical Internships
Successfully complete Didactic Curriculum

Degree Requirements
The Doctor of Physical Therapy degree program is a 116-unit, three year, full-time cohort program including summer sessions that includes terminal internship of 12 units.

Core:
Take all of the following courses:

- DPT 701A Anatomy for Physical Therapy I (2)
  Prerequisites: Admission to DPT program.
- DPT 701B Anatomy for Physical Therapy II (2)
  Prerequisite: DPT 701A.
- DPT 701C Anatomy for Physical Therapy III (2)
  Prerequisite: DPT 701B.
- DPT 703 Neuroanatomy (3)
  Prerequisite: DPT 701A. Corequisite: DPT 701B.
- DPT 704 Tissue Mechanics (2)
  Corequisite: DPT 701A.
- DPT 705 Biomechanical Principles (3)
  Prerequisite(s): DPT 701A, DPT 701B
  Corequisite(s): DPT 701C.
- DPT 706 Physiology for Therapists (6)
  Prerequisite: Admission to the DPT program.
- DPT 707 Physical Therapy across the Life Span (2)
  Prerequisite(s): DPT 701A and DPT 701B
  Corequisite(s): DPT 701C.
- DPT 708 Motor Learning and Motor Control (2)
  Prerequisite: Admission to DPT program.
- DPT 709 Exercise Science for Physical Therapy (3)
  Prerequisite(s): DPT 701A, DPT 701B, DPT 701C, DPT 704, DPT 706.
- DPT 710 Pathology for Physical Therapy (3)
  Prerequisite: Admission to DPT program.
- DPT 720 Professional Interactions (3)
  Prerequisite: Admission to DPT program.
- DPT 721 Professional Practice Issues (2)
  Prerequisite: DPT 720.
- DPT 722 Critical Thinking for Physical Therapy (1)
  Prerequisites: DPT 720, DPT 721.
- DPT 731 Physical Therapy Principles of Acute Care (2)
  Prerequisite(s): DPT 701A, DPT 701B, DPT 701C, DPT 703.
- DPT 732 Examination of Individuals with Musculoskeletal Disorders (3)
  Prerequisite: DPT 705.
- DPT 733 Interventions for Individuals with Musculoskeletal Disorders (4)
  Prerequisites: DPT 705, DPT 732.
- DPT 734 Advanced Management of Individuals with Musculoskeletal Disorders (2)
  Prerequisites: DPT 705, DPT 732, DPT 733.
- DPT 735 Normal and Pathological Gait (2)
  Prerequisite: DPT 705.
- DPT 736 Management of Individuals with Orthotic and Prosthetic Needs (2)
  Prerequisites: DPT 732, DPT 735.
- DPT 737 Sports Rehabilitation in Physical Therapy (2)
  Prerequisite: DPT 734.
- DPT 740 Evaluation of Individuals with Neuromuscular
Take a total of 6 units of each of the following:
DPT 785 Clinical Internship I (6)
Prerequisites: DPT 752, DPT 781, DPT 784.
DPT 786 Clinical Internship II (6)
Prerequisites: DPT 781, DPT 784, DPT 785.

Take a total of 4 units of the following:
DPT 797 Doctoral Project (1-4)
Prerequisite: DPT 796.

Elective:
DPT 791 Current Trends in Physical Therapy (1)
Prerequisite: Admission to DPT program or consent of instructor.

Doctor of Physical Therapy Courses (DPT)

701A. Anatomy for Physical Therapy I (2)
Prerequisites: Admission to DPT program.
Course Description: Advanced study of the structure and function of the neuromusculoskeletal systems including surface contour, myology, joint structure, and neurovascular supply. Regional emphasis concentrates on the upper extremity.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours) Not open to students with credit in DPT 701B.

701B. Anatomy for Physical Therapy II (2)
Prerequisite: DPT 701A.
Continuation of DPT 701A and DPT 701B. Advanced study of the structure and function of the neuromusculoskeletal systems including surface contour, myology, joint structure, and neurovascular supply. Regional emphasis concentrates on the lower extremity.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours) Not open to students with credit in DPT 701B.

701C. Anatomy for Physical Therapy III (2)
Prerequisite: DPT 701A.
Course Description: Advanced study of the structure and function of the neuromusculoskeletal systems including surface contour, myology, joint structure, and neurovascular supply. Regional emphasis concentrates on the head, neck and trunk.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

703. Neuroanatomy (3)
Prerequisite: DPT 701A.
Corequisite: DPT 701B.
Course Description: Human neuroanatomy with emphasis on the structure and function of the central nervous system, and connecting peripheral pathways for human function and movement. Neuroanatomical and vascular lesions will be discussed with emphasis on differential diagnosis and neuropathology.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours)

704. Tissue Mechanics (2)
Corequisite: DPT 701A.
Course Description: Advanced study of tissue (bone, muscle, dense fibrous connective tissue, cartilage, nerve) mechanics and pathomechanics including use and disuse with application to joint mechanics.
Letter grade only (A-F). (Lecture/discussion 2 hours)

705. Biomechanical Principles (3)
Prerequisite(s): DPT 701A, DPT 701B
Corequisite(s): DPT 701C.
Course Description: Advanced study of joint mechanics and pathomechanics with application to therapeutic procedures, posture and movement of the limbs, temporomandibular joint, neck and trunk.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours)
706. Physiology for Therapists (6)
Prerequisite: Admission to the DPT program.
Advanced study of the mechanisms of function of the organ systems of the human body and the contribution of these systems to organismal homeostasis. Systems studied include the nervous, endocrine, musculoskeletal, sensory, cardiovascular, respiratory and renal.
Letter grade only (A-F). (Lecture/discussion 6 hours)

707. Physical Therapy Across the Life Span (2)
Prerequisite(s): DPT 701A and DPT 701B
Corequisite(s): DPT 701C.
Investigation and analysis of human development across the lifespan with emphasis on body systems contributing to the development of movement. Also addresses health risks, preventive strategies and wellness, including gender issues.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

708. Motor Learning and Motor Control (2)
Prerequisite: Admission to DPT program.
Theories and models of motor control and mechanisms underlying plasticity related to functional movement across the lifespan. Theories and models of normal and impaired motor learning (implicit and explicit), including application of concepts to feedback and practice in physical therapy.
Letter grade only (A-F). (Lecture/discussion 2 hours)

709. Exercise Science for Physical Therapy (3)
Prerequisite(s): DPT 701A, DPT 701B, DPT 701C, DPT 704, DPT 706.
Study of systems challenged and altered by exercise in health and pathology. Includes exercise measurement, exercise prescription and intervention and strength and conditioning preparation.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours)

710. Pathology for Physical Therapy (3)
Prerequisite: Admission to DPT program.
Advanced study of abnormal function as a result of disease. Includes general pathology and selected systems pathology, encompassing cardiovascular, pulmonary, musculoskeletal, peripheral and central nervous systems, and integumentary systems.
Letter grade only (A-F). (Lecture/discussion 3 hours)

720. Professional Interactions (3)
Prerequisite: Admission to DPT program.
Self-awareness of how personality, learning preferences, and personal values affect professional interactions. Includes effective communication, conflict resolution, and eliciting patient values and goals. Also, communicating with patients who have experienced disability, sexual dysfunction, or issues with coping or dying.
Letter grade only (A-F). (Lecture/discussion 3 hours)

721. Professional Practice Issues (2)
Prerequisite: DPT 720.
Focus on professionalism and professional values including evidence-based practice, the critical analysis of evidence, and cultural competence. Also the role of the physical therapist in facilitation of health care behavior change and educating patients and the community.
Letter grade only (A-F). (Lecture/discussion 2 hours)

722. Critical Thinking for Physical Therapy (1)
Prerequisites: DPT 720, DPT 721.
Critical thinking models and activities to promote problem solving and decision making in the physical therapy setting.
Letter grade only (A-F). (Lecture/discussion 1 hour)

731. Physical Therapy Principles of Acute Care (2)
Prerequisite(s): DPT 701A, DPT 701B, DPT 701C, DPT 703.
Patient management in the acute care setting with emphasis on interpretation of laboratory values and physiological monitoring as the basis for functional training and use of assistive devices. Includes physical agents and introduction to wheelchair seating and positioning.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

732. Examination of Individuals with Musculoskeletal Disorders (3)
Prerequisite: DPT 705.
Physical therapist examination and evaluation for individuals with musculoskeletal disorders. Includes examination (history, screening, tests and measures), evaluation, diagnosis, prognosis, anticipated goals, expected outcomes, re-examination, and criteria for discharge.
Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours)

733. Interventions for Individuals with Musculoskeletal Disorders (4)
Prerequisites: DPT 705, DPT 732.
Plan of care for the individual with musculoskeletal system disorders that is safe, effective and patient centered. Includes monitoring and adjusting plan of care, patient education, documentation, and use of supportive personnel.
Letter grade only (A-F). (Lecture/discussion 3 hours, laboratory 3 hours)

734. Advanced Management of Individuals with Musculoskeletal Disorders (2)
Prerequisites: DPT 705, DPT 732, DPT 733.
Physical therapist management of individuals with musculoskeletal disorders. Includes examination, evaluation, diagnosis, prognosis, expected outcomes, re-examination, and criteria for discharge. Includes safe, patient-centered plan of care, patient education, documentation, and use of supportive personnel.
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

735. Normal and Pathological Gait (2)
Prerequisite: DPT 705.
Kinematics and kinetics of normal and pathological gait with emphasis on critical analysis of gait deviations and their causes in preparation for intervention.
Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours)

736. Management of Individuals with Orthotic and Prosthetic needs (2)
Prerequisites: DPT 732, DPT 735.
The prescription, application, and fabrication of devices and equipment (orthotic, prosthetic, supportive splinting, and taping).
Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

737. Sports Rehabilitation in Physical Therapy (2)
Prerequisite: DPT 734
Physical therapy examination, evaluation, and intervention for athletes with sport related injuries. Includes examination, evaluation, diagnosis, prognosis, expected outcomes, re-examination, and criteria for discharge.
Letter grade only (A-F). (4 hours of activity)
740. Evaluation of Individuals with Neuromuscular Disorders (2)  
Prerequisite: DPT 703.  
Physical therapist examination and evaluation for individuals with neuromuscular disorders. Includes examination (task and movement analysis, tests and measures for body structure and function, activity, and participation) evaluation, diagnosis, prognosis, anticipated goals, expected outcomes, re-examination, and criteria for discharge. Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours)

741. Intervention for Individuals with Neuromuscular Disorders I (3)  
Prerequisites: DPT 740. Corequisite: DPT 782.  
Intervention for individuals with disorders of the central neuromuscular system. Planning and implementation of plan of care that is safe, effective and patient centered; monitoring and adjusting plan of care; patient education; documentation; use of supportive personnel. Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours)

742. Intervention for Individuals with Neuromuscular Disorders II (1)  
Prerequisites: DPT 740, DPT 741.  
Intervention for individuals with disorders of the spinal cord and peripheral nerves. Planning and implementation of plan of care that is safe, effective and patient centered; monitoring and adjusting plan of care; patient education; documentation; use of supportive personnel. Letter grade only (A-F). (Laboratory 3 hours)

743. Electroneuromyographic Management I (2)  
Prerequisites: DPT 701C and DPT 703.  
Physiological and neurological basis for the selection of electroneuromyographic [ENMG] assessment and intervention in the management of neuromusculoskeletal and peripheral nerve disorders. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

744. Electroneuromyographic Management II (2)  
Prerequisite: DPT 743.  
Physiological and neurological basis for the selection of electroneuromyographic [ENMG] assessment and intervention in the management of central nervous system and mixed central and peripheral nervous system disorders. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

745. Management of the Pediatric Population (3)  
Prerequisites: DPT 707, DPT 740.  
Physical therapist management of the pediatric individual with neuromusculoskeletal disorders. Includes examination, evaluation, diagnosis, prognosis, expected outcomes, criteria for discharge. Includes safe, patient-centered plan of care, patient education, documentation, and use of supportive personnel. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

746. Advanced Management of Individuals with Neuromuscular Disorders (1)  
Prerequisites: DPT 740, DPT 741, DPT 742.  
Physical therapist advanced management of individuals with complex neurologic disorders. Integrates and advances knowledge and skills related to evaluation and intervention. Includes community re-integration, home assessment, and management of the complex patient. Letter grade only (A-F). (Lecture/discussion 1 hour)

750. Imaging for Physical Therapists (2)  
Prerequisites: DPT 710, DPT 732.  
Knowledge and skills of radiology and imaging necessary for a comprehensive evaluation to design a rehabilitation program. Includes roentgenograms, dynamic and static MRI, CT, scintigraphy, PET, ultrasound, bone densitometry, and radioisotopes. Letter grade only (A-F). (Lecture/discussion 2 hours)

751. Pharmacology for Physical Therapists (2)  
Prerequisite: Admission to DPT program.  
Study of the method of action, indications, contraindications and side effects of drugs commonly used by patients seen in physical therapy. Includes knowledge and skills necessary to perform a comprehensive evaluation necessary to design a rehabilitation program. Letter grade only (A-F). (Lecture/discussion 2 hours)

752. Differential Diagnosis for Physical Therapists (2)  
Prerequisites: DPT 743, DPT 750, DPT 751.  
Anatomical and physiological basis for patient screening to determine if referral to a medical doctor is required in the event that a medical condition supersedes or mimics a condition requiring physical therapy intervention. Letter grade only (A-F). (Lecture/discussion 2 hours)

760. Management of Individuals with Cardiopulmonary Disorders (3)  
Prerequisites: DPT 706, DPT 709.  
Physical therapist management of individuals with cardiovascular and pulmonary disorders. Includes examination, evaluation, diagnosis, prognosis, expected outcomes, and criteria for re-examination and discharge. Includes safe, patient-centered plan of care, patient education, documentation and use of supportive personnel. Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours)

765. Management of Individuals with Integumentary Disorders (2)  
Prerequisites: DPT 710.  
Physical Therapy management of individuals with integumentary (skin) disorders including examination, evaluation, diagnosis, prognosis, intervention, re-examination and criteria for discharge. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

767. Management of the Geriatric Population (2)  
Prerequisites: DPT 733, DPT 734, DPT 741, DPT 760.  
Physical therapy management of the geriatric patient/client including examination, evaluation, diagnosis, prognosis and intervention with anticipated goals, expected outcomes, criteria for discharge and re-examination. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours)

768. Clinical Pathophysiology (3)  
Prerequisites: DPT 707, DPT 710, DPT 731, DPT 750, DPT 751, DPT 752.  
Pathophysiology of connective tissue in musculoskeletal, neuromuscular, cardiopulmonary and integumentary disorders as a basis for physical therapy evaluation, diagnosis, goal setting and conservative as well as pre and post-operative intervention in patients with multiple systemic disorders. Letter grade only (A-F). (Lecture/discussion 3 hours)
769. Advanced Management of Individuals with Cardiopulmonary Disorders (1)
Prerequisite: DPT 760.
Advanced management of individuals with cardiovascular and pulmonary disorders. Includes integration of cardiovascular and pulmonary disorders with other disorders commonly treated by physical therapists.
Letter grade only (A-F). (Lecture/discussion 1 hour)

770. Health Care Delivery I (2)
Prerequisites: DPT 721, DPT 722.
Investigation of the health care delivery system including the legal, regulatory, political, ethical, professional duties of Physical Therapists. Includes laws and regulations governing client management and environmental safety.
Letter grade only (A-F). (Lecture/discussion 2 hours)

771. Health Care Delivery II (2)
Prerequisite: DPT 770.
Investigation of the process of planned direction, organizational theory and management, and economics and fiscal management of physical therapy delivery including marketing and promotion.
Letter grade only (A-F). (Clinical 1 hour)
May be repeated in different semesters to a maximum of 2 units.

780A. Orthopedic Integrated Clinical Experience I (1)
Prerequisite: DPT 732.
Supervised clinical practice for management of the client with disorders of the musculoskeletal system. Includes examination, evaluation, intervention, written and verbal communication, advocacy, and client/family caregiver education.
Letter grade only (A-F). (Clinical 1 hour)
May be repeated in a different semester to a maximum of 2 units.

780B. Orthopedic Integrated Clinical Experience II (1)
Prerequisites: DPT 732, DPT 733, DPT 734.
Supervised clinical practice for management of the client with disorders of the musculoskeletal system. Includes examination, evaluation, intervention, written and verbal communication, advocacy, and client/family caregiver education.
Letter grade only (A-F). (Clinical 1 hour)
May be repeated in a different semester to a maximum of 2 units.

781. Full Time Clinical Experience I (3)
Prerequisites: DPT 731, DPT 732, DPT 735, DPT 740.
Six weeks of supervised full-time clinical practice in the acute care or outpatient physical therapy setting. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education.
Credit/No Credit grading only. May be repeated in different semesters to a maximum of 6 units in different semesters. (Clinical Practice 6 weeks)

782. Neurological Integrated Clinical Experience I (1)
Prerequisite: DPT 740.
Corequisite: DPT 741.
Supervised pro bono clinical practice for management of the client with disorders of the neuromusculoskeletal systems. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education.
Grading: Letter grade only (A-F). May be repeated in different semesters to a maximum of 2 units. (Clinical 1 hour)

783. Neurological Integrated Clinical Experience II (1)
Prerequisite: DPT 782.
Supervised pro bono clinical practice for management of the client with disorders of the neuromusculoskeletal systems. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education. Focus on problem solving and decision making.

Letter grade only (A-F). May be repeated in different semesters to a maximum of 2 units. (Clinical 1 hour)

784. Full Time Clinical Experience II (3)
Prerequisites: DPT 733, DPT 734, DPT 741, DPT 760, DPT 781.
Six weeks of supervised full-time clinical practice in an inpatient or outpatient physical therapy setting. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education.
Credit/No Credit grading only. May be repeated in different semesters to a maximum of 12 units. (Clinical Practice 6 weeks)

785. Clinical Internship I (6)
Prerequisites: DPT 752, DPT 781, DPT 784.
Six weeks of supervised full-time clinical practice in an inpatient or outpatient physical therapy setting. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education. Setting will be different from DPT 785 internship.
Credit/No Credit grading only. May be repeated to a maximum of 12 units in the same semester. (Clinical Practice 6 weeks)

786. Clinical Internship II (6)
Prerequisites: DPT 781, DPT 784, DPT 785.
Six weeks of supervised full-time clinical practice in an inpatient or outpatient physical therapy setting. Includes examination, evaluation, intervention, advocacy, and client/family caregiver education. Setting will be different from DPT 785 internship.
Credit/No Credit grading only. May be repeated to a maximum of 12 units in the same semester. (Clinical Practice 6 weeks)

790. Selected Topics in Physical Therapy (1-3)
Prerequisite: Admission to DPT program or consent of instructor.
Topics of current interest in physical therapy selected for special presentation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

791. Current Trends in Physical Therapy (1)
Prerequisite: Admission to DPT program or consent of instructor.
Current trends in physical therapy selected for special presentation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Practice trend announced in the Schedule of Classes.

796. Research Methods (2)
Prerequisite: Admission to DPT program.
Scientific inquiry with emphasis on information searching. Includes epidemiology, research design, measurement theory, statistics, critical inquiry and clinical decision-making guidelines, research ethics, and the examination of research intended to validate physical therapy practice.
Letter grade only (A-F). (Lecture/discussion 2 hours)

797. Doctoral Project (1-4)
Prerequisite: DPT 796.
Research in an area of specialization in physical therapy under the direction of a faculty sponsor.
Letter grade only (A-F). A total of 4 units must be completed. May be repeated to a maximum of 4 units in different semesters.
PHYSICS AND ASTRONOMY
College of Natural Sciences and Mathematics

Department Chair: Chuhee Kwon
Department Office: Hall of Science (HSCI) 220
Telephone / FAX: (562) 985-4925 / (562) 985-7924
Website: www.csulb.edu/depts/physics/
Faculty: Andreas Bill, Thomas Gredig, Jiyeong Gu, Paul Hintzen, Zvonimir Hlousek, Prashanth Jaikumar, Patrick F. Kenealy (Emeritus), Chuhee Kwon, Claudia Ojeda-Aristizabal, Zoltan Papp, Michael Peterson, Galen T. Pickett, Subhash Rajpoot
Advisors:
Undergraduate: Jiyeong Gu
Credential: James Kisiel, Tim Williamson
Graduate: Andreas Bill
Administrative Support Coordinator: Irene Howard

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

Career Possibilities
Physicist • Teacher • Medical Physicist • Astrophysicist • Computer Scientist • Electro-Optical Engineer • Computer Engineer • Meteorologist • Metallurgist • Industrial Health Engineer • Aerospace Engineer • Geophysicist • Financial Analyst • Technical Writer • Astronomer • Teacher • Oceanographer • Systems Analyst • Mathematician • Materials Researcher • Quality Control Specialist • Food and Drug Inspector • Scientific Apparatus Salesperson • Nuclear Engineer • Physicist Technician (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu and www.aps.org/careers.) Various entry-level trainee positions in business and industry are available for graduates regardless of academic discipline.

Degree Programs
The Bachelor of Science degree is designed for students interested in immediate employment in industry or wishing to continue on to a Master's or Ph.D. degree in physics or a related field. The Bachelor of Arts degree is appropriate for those preparing for teaching careers in the physical sciences at the secondary level as well as those whose goal is a liberal arts education with an emphasis on physics.

The Department also offers graduate study leading to the Master of Science degree. This degree is available in both a general option and an option in applied physics. A limited number of teaching assistantships are available to students working on the master's degree. Application should be made to the Chair of the Department.

Academic Advising and Facilitated Enrollment into Classes
All entering students who declare a major in a degree program offered by this department need to contact the College of Natural Sciences and Mathematics' (CNSM) Academic Advising Center (HSCI 164) and participate in the College's Science Safari to Success (for first time freshmen) or EONS (Enrollment and Orientation in the Natural Sciences and Mathematics for transfer students) Program. These programs are held in July for those starting in the Fall Semester and in January for those starting in the Spring Semester. Department advisors will be available to provide an overview of the students' chosen baccalaureate degree program, to assist with academic advisement, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the CNSM Academic Advising Center, Jensen Student Access to Sciences and Mathematics Center (HSCI 164), or department office for additional information.

All entering graduate students need to contact the graduate advisor of the department. An orientation for graduate students is held during the week prior to start of classes.

Concurrent and/or Summer Enrollment at Another College
Students who wish to take course work at a community college or another college or university to meet curricular requirements while enrolled as undergraduates in the College of Natural Sciences and Mathematics must petition the appropriate Department for prior approval to earn credit for specific courses. This policy applies to concurrent enrollment or summer enrollment. Please see "Concurrent Enrollment" and "Transfer of Undergraduate Credit" in this catalog. Courses not receiving prior approval will not be accepted for credit by the Department.

Undergraduate Programs

Bachelor of Science in Physics (120 units)
Requirements
Lower Division:
Take all of the following courses:
PHYS 151 Mechanics and Heat (4) Prerequisite/Corequisite: MATH 122.
PHYS 152 Electricity and Magnetism (4) Prerequisite: PHYS 151;
   Prerequisite/Corequisite: MATH 123.
PHYS 254 Modern Physics and Light (3) Prerequisite: PHYS 152 or EE 210;
   Prerequisite/Corequisite: MATH 224.
PHYS 255 Laboratory on Light & Modern Physics (1) Prerequisite/Corequisite: PHYS 254.
MATH 122 Calculus I (4) Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4) Prerequisite: A grade of "C" or better in MATH 122.
MATH 224 Calculus III (4) Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.
MATH 247 Introduction to Linear Algebra (3) Prerequisite: MATH 123 or MATH 222.
Select one from the following three courses:
BIOL 200 General Biology (4) Prerequisite: GE Foundation requirements.
Or

BIOL 211 Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111 A with a grade of "C" or better.

Or

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

NOTE: BIOL 111, BIOL 111L are required if courses were taken prior to catalog year 2010-11.

Upper Division:
Take the following courses:
MATH 364A Ordinary Differential Equations I (3)
Prerequisites: MATH 222 or MATH 224, and prerequisite or corequisite MATH 247.
Take one other upper-division mathematics course:
Note: students interested in completing a minor in mathematics or applied mathematics should consult the appropriate advisor.
Take all of the following:
PHYS 310 Analytic Mechanics (3)
Prerequisite: PHYS 151. Corequisite: MATH 364A or MATH 370A.
PHYS 320 Thermodynamics (3)
Prerequisite: PHYS 152. Prerequisite/Corequisite, PHYS 254.
PHYS 340A Electricity and Magnetism I (3)
Prerequisites: PHYS 152, PHYS 310, Prerequisite/Corequisite: MATH 370A or MATH 364A.
PHYS 340B Electricity and Magnetism II (3)
Prerequisite: PHYS 340A.
PHYS 350 Modern Physics (3)
Prerequisites: PHYS 310; MATH 370A or MATH 364A.
PHYS 360 Physics with Symbolic Algebra Software (3)
Prerequisite: PHYS 254. Prerequisite/Corequisite: MATH 247.
PHYS 380 Electronics (4)
Prerequisite: PHYS 152.
PHYS 450 Quantum Physics I (3)
Prerequisites: PHYS 310, PHYS 340A, PHYS 350.
Take one laboratory course chosen from:
PHYS 445, PHYS 446, PHYS 476 and PHYS 480
6 units of upper-division physics electives

Grade Requirements
Physics majors must have a "C" average in the major. Physics students must achieve a grade of "C" or better in each required course in the major. The following schedule is typical for a major who is a full-time student.

Sophomore Year
Fall: PHYS 254, PHYS 255; MATH 224.
Spring: PHYS 360, PHYS 380; MATH 247.

Junior Year
Fall: PHYS 310, PHYS 320; MATH 364A.
Spring: PHYS 340A, PHYS 350; Upper division MATH elective.

Senior Year
Fall: PHYS 340B, PHYS 450.
Spring: Three upper division physics electives (one of which is a laboratory).

Bachelor of Arts in Physics (120 units)

Requirements
All required courses must be passed with a grade of "C" or better

Lower Division:
Take all of the following courses:
PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
PHYS 254 Modern Physics and Light (3)
Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.
MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.

Upper Division:
Take the following:
A minimum of 24 units selected in consultation with Physics Department Undergraduate Advisor, at least 12 units of which must be in physics. The remaining units can be chosen from EDSS 300C, EDSS 300M, any courses in the College of Engineering, or any courses in the College of Natural Sciences and Mathematics.

Physics Concentration
The Physics Concentration meets the subject matter competence requirement for the Single Subject Teaching Credential in Physics. Prospective students should consult the Single Subject Science Education Advisor in the Department of Science Education early to plan their program.

Requirements
Lower Division:
Take all of the following:
PHYS 151 Mechanics and Heat (4)
Prerequisite/Corequisite: MATH 122.
PHYS 152 Electricity and Magnetism (4)
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
PHYS 254 Modern Physics and Light (3)
Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.
PHYS 255 Laboratory on Light & Modern Physics (1)
Prerequisite/Corequisite: PHYS 254.
MATH 122 Calculus I (4)
Prerequisite: Appropriate MDPT placement or a grade of "C" or better in MATH 111 and MATH 113.
MATH 123 Calculus II (4)
Prerequisite: A grade of "C" or better in MATH 122.
MATH 224 Calculus III (4)
Prerequisite: A grade of "C" or better in MATH 123 or MATH 222.

ASTR 100 Astronomy (3)
Corequisites; One course from General Education Category B.2 and ASTR 100L.

CHEM 111A General Chemistry (5)
Prerequisites: A passing score on the Chemistry Placement Examination.
Corequisite: MATH 109 or higher.

CHEM 111B General Chemistry (5)
Prerequisites: CHEM 111A and MATH 113 or MATH 115 or MATH 117 or MATH 119A or MATH 122 all with a grade of "C" or better.

GEOL 102 General Geology (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 104 Geology Laboratory (1)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

GEOL 160 Introduction to Oceanography (3)
Prerequisites/Corequisites: A course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra or the equivalent.

BIOL 211 Introduction to Evolution and Diversity (4)
Prerequisite/Corequisite: CHEM 111A with a grade of "C" or better.

BIOL 212 Introduction to Cell and Molecular Biology (4)
Prerequisites: Completion of BIOL 211 and CHEM 111A with grades of "C" or better.

BIOL 213 Introduction to Ecology and Physiology (4)
Prerequisites: BIOL 211, BIOL 212, CHEM 111B with a grade of "C" or better.

NOTE: BIOL 111, BIOL 111L, BIOL 212, BIOL 212L, BIOL 213, BIOL 213L are required if courses were taken prior to catalog year 2010-11.

Upper Division:
Take all of the following:

PHYS 310 Analytic Mechanics (3)
Prerequisite: PHYS 151. Corequisite: MATH 364A or MATH 370A.

PHYS 340A Electricity and Magnetism I (3)
Prerequisites: PHYS 152, PHYS 310. Prerequisite/Corequisite: MATH 370A or MATH 364A.

PHYS 476 Modern Optics Laboratory (1)
Prerequisite: PHYS 340A.

SCED 403 Integrated Science (3)
Prerequisites: Completion of all credential breadth requirements for the Single Subject Teaching Credential Program in Science, three-fourths of the credential specializations courses, and consent of instructor.

SCED 404 Nature of Science Scientific Reasoning (3)
Prerequisites: Minimum of 9 units of science (introductory level or higher) or consent of instructor.

EDSS 300C Introduction to Teaching - Science (3)
Prerequisite: Advanced sophomore or junior standing.

EDSS 450C Curriculum and Methods in Teaching Science (3)

Prerequisite: EDSS 300C; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

EDSE 435 U.S. Secondary Schools: Interculture Educ (3)
Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

EDSE 436 Curriculum, Instruction, Assessment and Classroom Management (3)
Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

EDSE 457 Reading & Writing in Secondary School (3)
Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

Select one course from each of the following pairs:

1. MATH 364A Ordinary Differential Equations I (3)
   Prerequisites: MATH 222 or MATH 224, and prerequisite or corequisite MATH 247.

   MATH 370A Applied Mathematics I (3)
   Prerequisites: A grade of "C" or better in MATH 123. Not open to Freshmen.

2. PHYS 320 Thermodynamics (3)
   Prerequisite: PHYS 152. Prerequisite/Corequisite, PHYS 254.

   PHYS 422 Statistical Physics (3)
   Prerequisites: PHYS 310, PHYS 320, PHYS 350.

3. PHYS 380 Electronics (3)
   Prerequisite: PHYS 152.

   PHYS 496 Special Problems in Physics (3)
   Prerequisites: Consent of instructor and senior standing.

Single Subject Teaching Credential in Physics

In addition to meeting the subject matter competence requirement for the Teaching Credential, prospective Physics teachers are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete many of the credential program courses, except for student teaching, as an undergraduate. Courses may also be started as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the Single Subject Credential Program website (www.ced.csulb.edu/single-subject) for a description of the professional preparation requirements, courses, and application procedures.

The Physics Subject Matter Program is being revised to meet new state standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.
Minor in Physics

Requirements

The Minor in Physics is available to any non-Physics major. A minimum of 20 units which must include the following.

Lower Division:
Take all of the following:
- PHYS 151 Mechanics and Heat (4)
  Prerequisite/Corequisite: MATH 122.
- PHYS 152 Electricity and Magnetism (4)
  Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
- PHYS 254 Modern Physics and Light (3)
  Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.

Upper Division:
A minimum of 9 units in physics.

Graduate Programs

Master of Science in Physics

This is a comprehensive physics master's degree with options in General Physics or Computational Physics.

Prerequisites
1. A bachelor's degree with a major in physics; or
2. A bachelor's degree with at least 24 units of upper division physics. Students deficient in undergraduate preparation must take courses to remove these deficiencies without credit toward the degree at the discretion of graduate advisor.

Requirements
Take all of the following:
- PHYS 510 Graduate Mechanics (3)
  Prerequisite: PHYS 310.
- PHYS 522 Statistical Physics (3)
  Prerequisites: PHYS 310, PHYS 320, PHYS 350.
- PHYS 540A Graduate Electrodynamics I (3)
  Prerequisite: PHYS 340B.
- PHYS 550A Quantum Mechanics I (3)
  Prerequisite: PHYS 450.
- PHYS 560A Mathematical Methods of Physics (3)
  Prerequisites: MATH 370A,B or equivalent.

Take one of the following:
- PHYS 595 Colloquium (1)
  Prerequisite: Consent of instructor
- PHYS 695 Colloquium (1)
  Prerequisite: Graduate standing.

Take one of the following:
- PHYS 545 Experimental Methods in Physics I (3)
  Prerequisites: PHYS 254; PHYS 450 or consent of instructor.
- PHYS 546 Experimental Methods in Physics II (3)
  Prerequisites: PHYS 254; PHYS 450 or consent of instructor.
- PHYS 575 Modern Optics (3)
  Prerequisite: PHYS 340A or consent of instructor.
- PHYS 580 Computer Interfacing in Experimental Physics (3)
  Prerequisite: PHYS 380 or consent of instructor.

In addition, students may opt for one of two plans:

General Physics Plan
Take the following course:
- PHYS 550B Quantum Mechanics II (3)
  Prerequisite: PHYS 550A.

Take one of the following two choices after consultation with the graduate advisor:
1. Completion of at least 2 additional units of graduate-level PHYS courses, 6 units of PHYS 698, a written thesis approved by the student’s thesis committee consisting of a thesis chair (a Physics/Astronomy faculty member) and at least two more members, one of which must be a member of the Department, and an oral presentation of the thesis research. Note: Students must be advanced to candidacy before enrolling in PHYS 698.
2. With the permission of the Graduate committee, an additional 8 units of 500-level PHYS courses, and satisfactorily complete a comprehensive examination.

Computational Physics Plan
Take the following courses:
- PHYS 550B Quantum Mechanics II (3)
  Prerequisite: PHYS 550A.
- PHYS 562 Computational Methods in Theoretical Physics (3)
  Prerequisite: PHYS 450

Take 6 units of the following:
- PHYS 698 Thesis (6)
  Prerequisite: Advancement to candidacy for the M.S. in Physics.

A written thesis approved by the student’s thesis committee consisting of a thesis chair (a Physics/Astronomy faculty member) and at least two more members, one of which must be a member of the Department, and an oral presentation of the thesis research.

Note: Students must be advanced to candidacy before enrolling in PHYS 698.

Advancement to Candidacy
1. Students must fulfill the University requirements for advancement to candidacy.
2. A student must have a "B" average or better in six units of physics applicable toward the master’s degree, of which at least three units are at the graduate level.
3. Recognizing that effective organization and verbal communication of physics are a necessary part of a successful graduate program, the Department of Physics and Astronomy normally requires that a graduate student serve at least one semester as a teaching associate or a graduate assistant as part of the M.S. program. Exceptions may be granted by the Graduate Advisor.
4. Approval of the degree program by the graduate advisor, the Department Chair, Associate Dean in the College of Natural Sciences and Mathematics or designee.
Option in Applied Physics
The Option in Applied Physics provides a master's degree program that emphasizes concepts and techniques particularly appropriate for applied physics. It is intended for students having a background in physics, engineering, or a related field.

Prerequisites
1. A bachelor's degree with a major in physics, or
2. A bachelor's degree with a major in engineering with upper division physics substantially equivalent to PHYS 310, PHYS 340A,B, and PHYS 450, as determined by the graduate advisor, or
3. A bachelor's degree with upper division physics and mathematics courses essentially equivalent to PHYS 310, PHYS 340B, PHYS 450; and MATH 370A,B; as determined by the graduate advisor.

Students deficient in undergraduate preparation must take courses to remove deficiencies as determined by the graduate advisor.

Requirements
Take all of the following:
- PHYS 510 Graduate Mechanics (3)  
  Prerequisite: PHYS 310.
- PHYS 522 Statistical Physics (3)  
  Prerequisites: PHYS 310, PHYS 320, PHYS 350.
- PHYS 540A Graduate Electrodynamics I (3)  
  Prerequisite: PHYS 340B.
- PHYS 550A Quantum Mechanics I (3)  
  Prerequisite: PHYS 450.
- PHYS 560A Mathematical Methods of Physics (3)  
  Prerequisites: MATH 370A,B or equivalent.
- PHYS 695 Colloquium (1)  
  Prerequisite: Graduate standing.

Take two courses of the following (one must be 545 or 546):
- PHYS 545 Experimental Methods in Physics I (3)  
  Prerequisites: PHYS 254; PHYS 450 or consent of instructor.
- PHYS 546 Experimental Methods in Physics II (3)  
  Prerequisites: PHYS 254; PHYS 450 or consent of instructor.
- PHYS 576 Modern Optics with Laboratory (3)  
  Prerequisite: PHYS 340A.
- PHYS 580 Computer Interfacing in Experimental Physics (3)  
  Prerequisite: PHYS 380 or consent of instructor.

Completion of the following:
- Take 2 additional units of graduate-level PHYS course;
- Take 6 units of the following:
  - PHYS 698 Thesis (6)  
    Prerequisite: Advancement to candidacy for the M.S. in Physics.
    A written thesis approved by the student's thesis committee consisting of a thesis chair (a Physics/Astronomy faculty member) and at least two more members, one of which must be a member of the Department. An oral presentation of the thesis research is also required.
    Note: Students must be advanced to candidacy before enrolling in PHYS 698.

Advancement to Candidacy
1. Students must fulfill the University requirements for advancement to candidacy.
2. A student must have a "B" average or better in six units of physics applicable toward the master's degree, of which at least three units are at the graduate level.
3. Recognizing that effective organization and verbal communication of physics are a necessary part of a successful graduate program, the Department of Physics and Astronomy normally requires that a graduate student serve at least one semester as a teaching associate or a graduate assistant as part of the M.S. program. Exceptions may be granted by the Graduate Advisor.
4. Approval of the degree program by the graduate advisor, the Department Chair and Associate Dean in the College of Natural Sciences and Mathematics.

Master of Science in Professional Physics
This is a terminal physics master's degree intended for students pursuing industrial professional careers.

Prerequisites
1) A bachelor's degree with a major in physics; or
2) A bachelor's degree with at least 24 units of upper division physics. Students deficient in upper division undergraduate preparation must take courses to remove these deficiencies without credit toward the degree at the discretion of the graduate advisor.

Requirements
Take all of the following:
- PHYS 510 Graduate Mechanics (3)  
  Prerequisite: PHYS 310.
- PHYS 522 Statistical Physics (3)  
  Prerequisites: PHYS 310, 320, 350.
- PHYS 540A Graduate Electrodynamics I (3)  
  Prerequisite: PHYS 340B.
- PHYS 550A Quantum Mechanics I (3)  
  Prerequisite: PHYS 450.
- PHYS 560A Mathematical Methods of Physics (3)  
  Prerequisites: MATH 370A,B or equivalent.
- One elective from 500-level PHYS courses (3)

Take three of the following:
- NSCI 501 Project Management for Scientists (3)
- NSCI 502 Leadership and Management for Scientists (3)
- NSCI 503 Accounting and Finance for Scientists (3)
- NSCI 504 Introduction to Regulatory Science (3)
- NSCI 505 Professional Ethics (3)
- PHYS 692 Internship (3)

Take 4 units of the following:
- PHYS 699 Professional Project (4)  
  Prerequisite: Advancement to candidacy for the MS in Professional Physics.
Culminating Experience:
The program culminates with a professional project. The professional project is a significant undertaking that aims to apply fundamental physics methods and business-professional skills to situations relevant to the industry environment. Students are to demonstrate professional attributes expected in industry and to communicate the findings to a diverse audience. The project plan must be prepared by the student before advancing to candidacy. The project plan includes a specific set of advanced skills to be demonstrated and a specific timeline for the activities that must be completed. Students will engage the equivalent of 4-units of work on the professional project. The project report must demonstrate core competencies developed through the curriculum and reflect how the student integrates this knowledge into a project in industry. The completed project will include a written project report and oral defense.

Advancement to Candidacy
1) Attainment of classified status as a student in a graduate program at CSULB;
2) Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
3) Approval of the program of study by the Graduate Advisor, the Department Chair, and the Associate Dean in the College of Natural Sciences and Mathematics;
4) Completion with a minimum GPA of 3.0 of at least six units of courses required on the student’s program of study;
5) A cumulative, graduate, grade-point average of at least 3.0 calculated on all upper-division and graduate-level coursework attempted by the student at CSULB after completion of a baccalaureate degree.

Single Subject Teaching Credential in Physics
For information, refer to the undergraduate section in this department.

Physics Courses (PHYS)

LOWER DIVISION
100A,B. General Physics (4,4) F,S
Prerequisite: PHYS 100A; MATH 109 or MATH 113 or MATH 119A or MATH 122.
PHYS 100B: PHYS 100A.
Year course in introductory physics. First semester considers properties of matter, mechanics, wave motion, and heat. Second semester considers electricity, light, and atomic and nuclear physics.
Letter grade only (A-F). (Lecture 3 hrs, laboratory 3 hrs.)

151. Mechanics and Heat (4) F,S
Prerequisite/Corequisite: MATH 122.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

UPPER DIVISION
310. Analytic Mechanics (3) F
Prerequisite: PHYS 151. Corequisite: MATH 364A or MATH 370A.
Letter grade only (A-F). (Lecture 3 hrs.)

320. Thermodynamics (3) F
Prerequisite: PHYS 152. Prerequisite/Corequisite, PHYS 254.
Laws of thermodynamics, thermodynamic potentials, kinetic theory methods, phase transitions, equilibrium ensembles and related formalism with applications to classical and quantum systems.
Letter grade only (A-F). (Lecture 3 hrs.)

340A. Electricity and Magnetism I (3) S
Prerequisites: PHYS 152, PHYS 310. Prerequisite/Corequisite: MATH 370A or MATH 364A.
Vector calculus, electrostatics, and magnetostatics. Formulation of Maxwell’s equations in vector analytic form.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

340B. Electricity and Magnetism II (3) F
Prerequisite: PHYS 340A.
Special relativity. Applications of Maxwell’s equations: Plane electromagnetic waves, guided waves, radiation, interaction of electromagnetic waves and matter.
(Lecture-discussion 3 hrs.)

350. Modern Physics (3) S
Prerequisites: PHYS 310; MATH 370A or MATH 364A.
Physical phenomena and models leading to development of quantum mechanics. Schroedinger equation, one-dimensional quantum mechanical problems, uncertainty principle, one-electron atoms, elementary applications of quantum mechanics.
(Lecture-discussion 3 hrs.)

152. Electricity and Magnetism (4) F,S
Prerequisite: PHYS 151; Prerequisite/Corequisite: MATH 123.
Mechanical waves, Coulomb’s law, electrostatics, electric circuits, introductory electronics, magnetic fields, induction and Maxwell’s equations.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

254. Applied Modern Physics (3) F,S
Prerequisite: PHYS 152 or EE 210; Prerequisite/Corequisite: MATH 224.
Geometrical and physical optics, models of atomic and condensed matter systems.
Not open for credit to students with a “C” or better in PHYS 153 or PHYS 154. Letter grade only (A-F). (Lecture 3 hrs.)

255. Laboratory on Modern Physics (1)
Prerequisite/Corequisite: PHYS 254.
Experimental work in optics and modern physics.
Not open for credit to students with a “C” or better in PHYS 153 or PHYS 155. PHYS 255 is equivalent to PHYS 155. Letter grade only (A-F). (Laboratory 3 hrs.)
360. Physics With Symbolic Algebra Software (3)
Prerequisite: PHYS 254. Prerequisite/Corequisite: MATH 247.
Learning symbolic algebra programming (e.g. Mathematica) to enhance the problem-solving abilities of students in physics, engineering and mathematics. Interpolation and fitting of experimental data. Sophisticated graphics, animations, analytic calculations, and numerical solutions for a variety of physics problems.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

380. Electronics (4) S
Prerequisite: PHYS 152.
Network analysis and complex impedance, transistor circuits, operational amplifiers, active filters and oscillators, digital electronics, analog-digital interfacing, microprocessors.
Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

385. Materials Science (3)
Prerequisite: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 11B is strongly recommended.
Introduction to general principles of energy materials including catalytic, photovoltaic, and thermoelectric materials based on nanostructural and/or nanoporous systems. Students will be required to complete preparatory modules on Kinetics (reaction dynamics), Electrochemistry, Fermi statistics, and Diodes.
Letter grade only (A-F). Same course as CHEM 385. Not open for credit to students with credit in CHEM 385.

385L. Materials Science Laboratory (2)
Prerequisite: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 11B is strongly recommended.
Introduction to synthesis, characterization methods, and property measurement of advanced materials
Letter grade only (A-F). Course fee may be required. (Laboratory 6 hours). Same course as CHEM 385L. Not open for credit to students with credit in CHEM 385L.

385C. Materials Science Colloquium (1)
Prerequisite: CHEM 111A and PHYS 152 and (CHEM 111B or PHYS 320), completion of CHEM 11B is strongly recommended.
Discussion of advances as reported in recent literature related to energy materials. Provides experience in library use, organization, presentation, and critical evaluation of the literature.
Letter grade only (A-F). Same course as CHEM 385C. Not open for credit to students with credit in CHEM 385C.

390. Exploring Physics Teaching (3)
Prerequisite: PHYS 151 and consent of instructor.
Exploration of teaching physics as a learning assistant in secondary physics classrooms and in the lower-level laboratories and tutorials of the college physics curriculum. An exploration of the profession of teaching physics at many levels.
(Lecture, 3 hrs.)

410./515. Relativity (3)
Prerequisite: PHYS 340A. Prerequisite/Corequisite: MATH 370A or MATH 364A. (Undergraduates enroll in PHYS 410; graduates enroll in PHYS 515.)
Lorentz transformation, relativistic kinematics and dynamics, 4-vectors and tensors, transformation of electric and magnetic fields, covariant form of Maxwell's equations, introduction to general relativity.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

422./522. Statistical Physics (3) S
Prerequisites: PHYS 310, PHYS 320, PHYS 350. (Undergraduates enroll in PHYS 422; graduates enroll in PHYS 522.)
Entropy and temperature, Boltzmann distribution and Helmholtz free energy, thermal radiation, chemical potential, Gibbs distribution, ideal gas, Fermi and Bose gases, heat and work, Gibbs free energy and chemical reactions, phase transformations and kinetic theory.
Letter grade only (A-F). (Lecture-discussion 3 hrs)

434./534. Astrophysics (3)
Prerequisites: PHYS 310, PHYS 320, and PHYS 340A or consent of the instructor. (Undergraduates enroll in PHYS 434; graduates enroll in PHYS 534.)
Topics in astrophysics. A particular semester schedule might include one or two topics from: Stellar interiors and evolution, radiative transfer and stellar atmospheres, relativistic cosmology, galaxy formation, accretion disk physics and quasars.
Letter grade only (A-F). (Lecture 3 hrs)

445./545. Experimental Methods in Physics I (3)
Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates enroll in PHYS 445; graduates enroll in PHYS 545.)
Modern physical measurement techniques including scanning probe microscopy and pulsed nuclear magnetic resonance. Noise and fluctuations in physical measurements. Low noise measurement techniques including lock-in amplifier, gated integrator and boxcar averager, bridge circuits, convolution, auto- and cross-correlation and FFT.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

446./546. Experimental Methods in Physics II (3)
Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates enroll in PHYS 446; graduates enroll in PHYS 546.)
Modern physical measurement techniques in condensed matter physics in high magnetic fields and low temperatures. Examples are temperature and magnetic field effects in magnetic materials, Meissner effect and superconducting transition temperature in superconductors, and mobility and Hall effect in semiconductors.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

450. Quantum Physics I (3) F
Prerequisites: PHYS 310, PHYS 340A, PHYS 350.
Schroedinger equation, atomic physics, harmonic oscillator, scattering, perturbation theory, Heisenberg and Dirac representations, spin, symmetries (angular momentum, time reversal, and parity), applications.
(Lecture-discussion 3 hrs.)

451. Quantum Physics II (3)
Prerequisite: PHYS 450.
Measurement processes, atomic physics, identical particles, quantum statistics, numerical methods, many-body systems, density matrix, applications.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

470./569. Introduction to Solid State Physics (3)
Prerequisite: PHYS 450. (Undergraduates enroll in PHYS 470; graduates enroll in PHYS 569.)
Study of properties of solids from quantum theoretical viewpoint. Includes lattice vibrations, elastic constants, and thermal, electric, and magnetic properties.
Letter grade only (A-F). (Lecture 3 hrs.)
476./576. Modern Optics with Laboratory (3)
Prerequisite: PHYS 340A. (Undergraduates enroll in PHYS 476; graduates enroll in PHYS 576.)
Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected application. Experiments illustrating principles and techniques of electro-optics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics.
Letter grade only (A-F). (Lecture 3 hrs, laboratory 3 hrs.)

480./580. Computer Interfacing in Experimental Physics (3)
Prerequisite: PHYS 380 or consent of instructor. (Undergraduates enroll in PHYS 480; graduates enroll in PHYS 580.)
Modern data acquisition and analysis methods using computer-based equipment and high level software. Physics experiments performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. Computer use as tool in execution and interpretation of experiments.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

490./590. Selected Topics in Physics (3)
Prerequisite: Consent of instructor. (Undergraduates enroll in PHYS 490; graduates enroll in PHYS 590.)
Physics topics selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, low temperature physics, acoustics, and theoretical physics.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes. (Lecture 3 hrs.)

491A. Pedagogical Content Knowledge in Physics - Force and Motion (3)
Prerequisite: Consent of instructor.
Physics content and pedagogy aimed at supporting secondary education. Force and Motion.
Letter grade only (A-F). (Seminar 3 hrs)

491B. Pedagogical Content Knowledge in Physics - Energy and Momentum (3)
Prerequisite: Consent of instructor.
Physics content and pedagogy aimed at supporting secondary education. Energy and Momentum.
Letter grade only (A-F). (Seminar 3 hrs)

491C. Pedagogical Content Knowledge in Physics - Waves and Optics (3)
Prerequisite: Consent of instructor.
Physics content and pedagogy aimed at supporting secondary education. Waves and Optics.
Letter grade only (A-F). (Seminar 3 hrs)

491D. Pedagogical Content Knowledge in Physics - Electricity and Magnetism (3)
Prerequisite: Consent of instructor.
Physics content and pedagogy aimed at supporting secondary education. Electricity and Magnetism.
Letter grade only (A-F). (Seminar 3 hrs)

491E. Pedagogical Content Knowledge in Physics - Nuclear and Thermal (3)
Prerequisite: Consent of instructor.
Physics content and pedagogy aimed at supporting secondary education. Nuclear, Thermal.
Letter grade only (A-F). (Seminar 3 hrs)

495./595. Colloquium (1)
Prerequisite: Consent of instructor.
Weekly meetings for presentation and discussion of current research in physics.
Credit/No credit grading only. (Seminar 1 hr) (Undergraduates enroll in PHYS 495; graduate students enroll in PHYS 595)

496. Special Problems in Physics (1-3)
Prerequisites: Consent of instructor and senior standing.
Physics problems selected by instructor for considered and mature analysis. Written and 10-minute oral reports required.

GRADUATE LEVEL

510. Graduate Mechanics (3) F
Prerequisite: PHYS 310.
Variational principles, Lagrange’s equations, Hamilton’s equations, canonical transformations, Hamilton-Jacobi theory, relativistic mechanics and small oscillation theory.
Letter grade only (A-F). (Lecture 4 hrs.)

515./410. Relativity (3)
Prerequisite: PHYS 340A. Prerequisite/Corequisite: MATH 370A or MATH 364A. (Undergraduates enroll in PHYS 410; graduates enroll in PHYS 515.)
Lorentz transformation, relativistic kinematics and dynamics, 4-vectors and tensors, transformation of electric and magnetic fields, covariant form of Maxwell’s equations, introduction to general relativity.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

522./422. Statistical Physics (3) S
Prerequisites: PHYS 310, PHYS 320, PHYS 350. (Undergraduates enroll in PHYS 422; graduates enroll in PHYS 522.)
Entropy and temperature, Boltzmann distribution and Helmholtz free energy, thermal radiation, chemical potential, Gibbs distribution, ideal gas, Fermi and Bose gases, heat and work, Gibbs free energy and chemical reactions, phase transformations and kinetic theory.
Letter grade only (A-F). (Lecture-discussion 3 hrs.)

534./434. Astrophysics (3)
Prerequisites: PHYS 310, PHYS 320, and PHYS 340A or consent of the instructor. (Undergraduates enroll in PHYS 434; graduates enroll in PHYS 534.)
Topics in astrophysics. A particular semester schedule might include one or two topics from: Stellar interiors and evolution, radiative transfer and stellar atmospheres, relativistic cosmology, galaxy formation, accretion disk physics and quasars.
Letter grade only (A-F). (Lecture 3 hrs)

540A. Graduate Electrodynamics (3) S
Prerequisite: PHYS 340B.
Boundary-value problems, applications of special functions to electrodynamostatics, Green’s function techniques, multipole expansion of electrostatic field, dielectric media, Maxwell’s equations, electromagnetic waves.
Letter grade only (A-F). (Lecture 3 hrs.)

545./445. Experimental Methods in Physics I (3)
Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates enroll in PHYS 445; graduates enroll in PHYS 545.)
Modern physical measurement techniques including scanning probe microscopy and pulsed nuclear magnetic resonance. Noise and fluctuations in physical measurements. Low noise measurement techniques including lock-in amplifier, gated integrator and boxcar averager, bridge circuits, convolution, auto- and cross-correlation and FFT.
Letter grade only (A-F). (Lecture 2 hrs, laboratory 3 hrs)
546./446. Experimental Methods in Physics II (3)
Prerequisites: PHYS 254; PHYS 450 or consent of instructor.
(Undergraduates enroll in PHYS 446; graduates enroll in PHYS 546.)
Modern physical measurement techniques in condensed matter physics in high magnetic fields and low temperatures. Examples are temperature and magnetic field effects in magnetic materials, Meissner effect and superconducting transition temperature in superconductors, and mobility and Hall effect in semiconductors. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

550A. Quantum Mechanics I (3) F
Prerequisite: PHYS 450.
Mathematical and postulational basis of quantum mechanics, one-dimensional problems, two-level systems, angular momentum, central potentials, time independent and time dependent perturbation theory.
Letter grade only (A-F). (Lecture 3 hrs.)

550B. Quantum Mechanics II (3) S
Prerequisite: PHYS 550A.
Scattering, rotation group and irreducible tensor operations, identical particles, semi-classical radiation theory, atoms, path integral formalism, and other selected topics.
Letter grade only (A-F). (Lecture 3 hrs.)

554. Nuclear Physics (3)
Prerequisite: PHYS 550A.
Deuteron problem, nucleon-nucleon potential, shell model, nuclear models, nuclear reactions, elementary particles, weak interactions, strong interactions.
Letter grade only (A-F). (Lecture 3 hrs.)

555. Elementary Particle Physics (3)
Prerequisites: PHYS 310, PHYS 340B, PHYS 450.
Feynman diagram language of scattering and decay, space-time symmetries, relativistic kinematics, hadron quantum numbers and quark models, QED, QCD and gluons, weak interactions.
Letter grade only (A-F). (Lecture 4.3 hrs.)

560A. Mathematical Methods of Physics (3,3)
Prerequisites: MATH 370A,B or equivalent.
Linear vector spaces, eigenvalue problem, functions of complex variable, special functions, properties and methods of solving partial differential equations of physics, integral equations, tensor analysis, and group theory.
Letter grade only (A-F). (Lecture 4.3 hrs.)

562. Advanced Computational Methods in Physics (3)
Prerequisite: PHYS 450
Computational methods applied to study advanced physics problems such as symbolic and numerical programming, and their applications in various fields (e.g. quantum mechanics, electrodynamics, statistical physics, condensed matter physics, astrophysics, atomic and subatomic physics, etc.)
Letter grade only (A-F). (Lecture 3 hrs.)

569/470. Introduction to Solid State Physics (3)
Prerequisite: PHYS 450. (Undergraduates enroll in PHYS 470; graduates enroll in PHYS 569.)
Study of the properties of solids from a quantum theoretical viewpoint. Topics include lattice vibrations, elastic constants, and thermal, electric and magnetic properties.
Letter grade only (A-F). (Lecture 3 hrs.)

576/476. Modern Optics with Laboratory (3)
Prerequisite: PHYS 340A. (Undergraduates enroll in PHYS 476; graduates enroll in PHYS 576.)
Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected application. Experiments illustrating principles and techniques of electro-optics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics.
Letter grade only (A-F). (Lecture 2 hrs laboratory 3 hrs)

580/480. Computer Interfacing in Experimental Physics (3)
Prerequisite: PHYS 380 or consent of instructor. (Undergraduates enroll in PHYS 480; graduates enroll in PHYS 580.)
Modern data acquisition and analysis methods using computer-based equipment and high level software. Physics experiments performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. Computer use as tool in execution and interpretation of experiments.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

590/490. Selected Topics in Physics (3)
Prerequisite: Consent of instructor. (Undergraduates enroll in PHYS 490; graduates enroll in PHYS 590.)
Physics topics selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, low temperature physics, acoustics, and theoretical physics.
May be repeated to a maximum of 6 units. Topics announced in the Schedule of Classes.
Letter grade only (A-F). (Lecture 3 hrs.)

595/495. Colloquium (1)
Prerequisite: Consent of instructor
Weekly meetings for presentation and discussion of current research in physics. (Undergraduates enroll in PHYS 495; graduate students enroll PHYS 595) Credit /No credit grading only. (Seminar 1 hr)

691. Directed Study (1)
Intensive study of advanced topics in physics.
May be repeated to a maximum of 2 units. Letter grade only (A-F).

692. Professional Physics Internship (1-4)
Prerequisite: Graduate standing in physics.
Internship in an industrial setting using advanced professional physics skills. An oral presentation is required. May be repeated to a maximum of 4 units in different semesters.
Credit/ No Credit grading only. (1-4 hours contact)

694. Seminar in Special Topics (1)
Prerequisite: Graduate standing.
Study of research papers and research methods in selected topics. If demand for more than one subject exists, multiple sections may be given in any one semester.
May be repeated to a maximum of 2 units; only 1 unit may be applied to the master's degree. Letter grade only (A-F). (Seminar 1 hr.)

695. Colloquium (1)
Prerequisite: Graduate standing.
Weekly meetings for presentation and discussion of current research in physics. Even though only 1 unit is for M.S. degree, graduate students are expected to attend each semester they are enrolled in University.
Credit/No Credit grading only. (Seminar 1 hr.)
697. Directed Research (1-3)
Theoretical and experimental problems in physics requiring intensive analysis.
Letter grade only (A-F).

698. Thesis (1-6)
Prerequisite: Advancement to candidacy for the M.S. in Physics.
Planning, preparation, and completion of acceptable thesis in partial fulfillment of requirements for master's degree. A half-hour seminar presenting and defending results of the thesis required. Credit obtained upon formal acceptance of thesis.

699. Professional Project (1-4)
Prerequisite: Advancement to candidacy in the Masters of Science in Professional Physics degree program.
A significant project undertaken to gain and demonstrate fluency with advanced methods of physics as it is used professionally. The project will demonstrate the acquisition of skills. An oral presentation is required.
Credit/No Credit grading only. May be repeated to a maximum 4 units in different semesters.

Astronomy Courses (ASTR)

LOWER DIVISION

100. Astronomy (3) F,S
Corequisites: One course from General Education Category B.2 and ASTR 100L.
Introductory course in astronomy. The earth moon system and the planets, the stars and their constitution. Survey of the methods of astronomical observation.
(Lecture 3 hrs.)

100L. Introductory Astronomy Laboratory (1) F,S
Prerequisites/Corequisites: One course from Category B.2 of GE Foundation requirements; ASTR 100.
Astronomical coordinates, star maps, magnitude, spectral classification, ages of stars, distance to star clusters.
Not open for credit to students with credit in ASTR 101.
(Laboratory 3 hrs.)

UPPER DIVISION

370. Planetary Environments (3)
Prerequisites: GE Foundation requirements and GE B.1.b category; upper division standing.
Planets and moons analyzed as to surface geology, interiors, atmospheres, etc. Methodologies and scientific reasoning about nature and origins of features. Origin of terrestrial life, including role of extinction events, and probable requirements for life elsewhere in universe.
(Lecture 3 hrs.)

Physical Science Courses (PHSC)

LOWER DIVISION

112. Introduction to the Physical Sciences (3) F,S
Prerequisite/Corequisite: One course from Category B.2 of GE Foundation.
Selected processes which illustrate some basic principles used by scientists to interpret modern ideas of matter and energy in physical universe.
Not open for credit to majors in any of the physical sciences.
(Lecture 2 hrs., laboratory 3 hrs.)
POLITICAL SCIENCE
College of Liberal Arts

Department Chair: Teresa Wright
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Faculty: Mary Caputi, Christopher Dennis, Darin DeWitt, Larry George, Cora Sol Goldstein, Liesl Haas, Richard Haesly, Charles Mahoney, Larry F. Martinez, Charles Noble, Amy Cabrera Rasmussen, Barry H. Steiner, Kevin Wallsten, Jason E. Whitehead, Teresa Wright

Administrative Coordinator: Amelia Marquez
Administrative Assistant: Jason Francescon

Students desiring information should contact the department office for referral to one of the faculty advisors:

Advisors:
Credential: Ilene Luhr (History)
Undergraduate: Amy Rasmussen, Richard Haesly
Graduate: Cora Sol Goldstein

Career Possibilities
Political Scientist • Journalist • Foreign Service Officer • Urban Planner • Para Legal • Labor Relations Specialist • Administrator • Researcher • Lobbyist • Archivist • Probation/Parole Officer • Intelligence Analyst • Teacher • Lawyer • Social Service Worker • Market Research Analyst • Public Survey Worker • Community Organizer • Politician • Legislative Aide • City Manager

(These careers are some of those, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The political science major provides systematic knowledge of the nature and scope of political science. In addition, a political science major is preparation for general education, good citizenship and participation in political life.

General Education Requirements in Government
The Education Code requires each college graduate to meet (1) a federal government requirement and (2) a California state and local government requirement. Both of these requirements can be met by POSC 100 (for lower division students) or POSC 391 (for upper division students). If the student has completed the federal government requirement, but not the California state and local government requirement, the student should take POSC 199, 326, or 399. Students who have taken American federal, state or local government at another institution should check with a political science advisor before enrolling.

Undergraduate Programs

Bachelor of Arts in Political Science (120 units)

Requirements

Required Courses (6 units):
POSC 100 Introduction to American Government (3)
Prerequisite/Corequisite: GE A1 requirement.
POSC 300 Scope/Methods Political Science (3)
Prerequisite: POSC 100.

Concentration Requirement (18 units):
Take 18 units in one of the three areas of concentration:
1. Law, Politics, Policy
2. Political Theory
3. Global Politics
Take 3 lower-division units and 15 upper-division units in the chosen area of concentration, including the senior seminar in that area.

Breadth Requirement, 15 units of which:
1. no more than 6 units may be from the student’s area of concentration;
2. no more than 3 may be lower division;
3. minimum of 3 units must be from each of the student's two non-concentration areas, for a total of 6 units

Note: This program must include at least 3 units of a practicum.
Note: POSC 100, the 200-level concentration requirement, and POSC 300 must be completed by the end of the junior year.
Note: POSC 100 and one 200-level POSC course must be completed with a grade of “C” or better.
Note: With the exception of internships, all courses used toward the POSC major must be taken for a letter grade.
Note: No more than 3 units (each) of POSC 378, POSC 417, POSC 418, and POSC 498 may be used toward the major.
Note: A maximum of 6 units may be earned in POSC 418, POSC 447, POSC 448, and POSC 498 combined.

Total Units: 39

Honors in Political Science
Students with a major in Political Science may be admitted to the Political Science Department’s honors program (option of the University Honor’s Program).

Requirements
Minimum requirements for eligibility are:
1. Junior standing, completion of POSC 300, and at least two additional upper-division courses in Political Science;
2. A minimum of two semesters remaining before graduation following the semester in which the application is submitted;
3. A minimum cumulative GPA of 3.3, and 3.5 in Political Science courses
Applications for fall admission are due April 15; applications for spring admission are due November 15.
Applications must include:
1. A completed application form
2. One letter of recommendation from the faculty sponsor that has agreed to oversee the applicant’s honors thesis.
3. One letter of recommendation from a second faculty member (preferably in Political Science)
4. A 5-10 page research or analytical paper written for a previously taken course in Political Science
In order to graduate with Honors in Political Science a student must:
1. Complete all regular requirements for the major in Political Science;
2. Complete 3 units of POSC 490H: Honors Seminar
3. Complete 3 units of POSC 491H: Honors Research
4. Complete 3 units of POSC 492H: Honors Thesis
5. Have at the time of graduation a minimum cumulative GPA of 3.3 and 3.5 in Political Science courses.

Minor in Political Science
The Minor in Political Science is available to any non-Political Science major.
Requirements
A minimum of 21 units which must include:
Take one of the following courses:
- POSC 100 Introduction to American Government (3)
  Prerequisite/Corequisite: GE A1 requirement.
- POSC 391 American Government (3)
  Prerequisites: GE Foundation requirement.
Take the following course:
- POSC 300 Scope and Methods of Political Science (3)
  Prerequisite: POSC 100.
Fifteen Elective units in POSC:
No more than three units may be lower division.
May include three units of one approved political science internship from the following: POSC 418, POSC 447, POSC 448, POSC 496, or POSC 498.
May include no more than three units (each) of POSC 378 and POSC 417.

Minor in Public Administration in Political Science
The Minor in Public Administration in Political Science is available to any non-Political Science major.
Requirements
A minimum of 21 units which must include:
1. A minimum of 15 units selected from the following:
   - POSC 300, POSC 326, POSC 327, POSC 328, POSC 329, POSC 430, POSC 431, POSC 432, POSC 447, POSC 448, POSC 498;
2. 6 additional upper division POSC units selected in consultation with a POSC Undergraduate Advisor.

Interdisciplinary Minor in Public Policy
The minor consists of 21 units including a core curriculum of 12 units and 9 units of electives. A maximum of 6 units may be taken in the student's major department, but no units may be counted in both the major and minor.

Requirements
1. Core Curriculum (12 units required):
   Take the following courses:
   - ECON 450, POSC 328, PSY 375, and GEOG 301
   Note: It is strongly recommended that students take core courses in sequence, the first two courses during the Junior year; the second two during the Senior year.
2. Electives: (9 units required):
   At least 6 units of the 9 elective units must be taken in one of the policy area concentrations outlined below. The remaining 3 units may be taken from among any of the elective courses approved for the minor.

Policy Area Concentrations:
- Community Relations and Social Services, Health Care, Housing and Recreation, Education, Economic Regulation, Justice and Law, Land Use and Ecology, Computational Skills for Public Policy, Foreign Policy and International Relations, Values and Public Policy, Government Processes and Policy, Law, Politics and Policy

Graduate Programs

Master of Arts in Political Science
Student can view the general requirements of the University and the specific requirements of the department in this Catalog. Important supplementary information about the master's degree in political science is available on the department website. Before entering the program, students will normally consult with the graduate advisor.

After beginning graduate study, the student is responsible for obtaining the consent of fulltime members of the department's graduate faculty to serve on her/his graduate committee. The student should seek to have established her/his committee prior to completion of the first year or the first 18 units of work as a graduate student in political science unless the Department Graduate Committee grants an exception.

Minimum prerequisites for admission consideration:
1. A bachelor's degree with a major in political science or a bachelor’s degree with 24 upper division units in political science comparable to those required for a major in political science at this university.
2. A 3.0 (“B”) GPA in political science courses taken as an undergraduate;
3. Three letters of recommendation (preferably from academic sources);
4. A statement of purpose of approximately 500 words. Include a discussion of applicant's motivations and qualifications for entering the MA program.

Students who have not majored in political science and do not have 24 units of upper division political science work
are encouraged to consult with the graduate coordinator for further advice.

Advancement to Candidacy
1. Satisfy the general requirements of the University for advancement to candidacy;
2. In order to be recommended for advancement to candidacy, students must obtain the written approval of their master’s degree program of course work by their committee chair and graduate advisor.

Requirements
A student's program is formulated in consultation with the department's Graduate Coordinator.
The following courses are required, for a total of 30 units:
POSC 500 Foundations & Scope of Political Science (3)
Prerequisite: Graduate standing in Political Science or consent of instructor.
POSC 525 Seminar in Political Theory (3)
Prerequisite: Graduate standing in political science or consent of instructor.
POSC 550 Research Methods in Political Science (3)
Prerequisite: Graduate standing in political science or consent of instructor.
Three of the following:
POSC 640, POSC 642, POSC 600, POSC 610 (9)
Two of the following:
POSC 605, POSC 615, POSC 644, POSC 646 (6)
One elective graduate course
(selected in consultation with Graduate Coordinator) (3)
One of the following:
POSC 697 (3) consists of a comprehensive examination in the student’s major and minor subfields.
Prerequisite: Consent of Graduate Coordinator.
POSC 698 (3) consists of a thesis
Prerequisite: Consent of Graduate Coordinator.

Law, Politics and Policy
POSC 212 How Democratic is the United States?
POSC 311 Constitutional Law: Power
POSC 312 Constitutional Law: Rights
POSC 321 The Media and American Politics
POSC 322 Parties, Campaigns, and Elections
POSC 323 Racial and Ethnic Politics – U.S.
POSC 326 California Government in Comparative Perspective
POSC 327 Urban Politics
POSC 328 Public Policy
POSC 329 Cases in Public Policy Making
POSC 412 Law and Social Change
POSC 414 Jurisprudence
POSC 417 Legal Practices: Moot Court
POSC 418 Legal/Judicial Apprenticeship
POSC 422 Public Opinion and Political Behavior
POSC 423 The American Presidency
POSC 424 The United States Congress
POSC 430 Fundamentals of Public Administration
POSC 431 Public Policy Analysis
POSC 432 Public Values and Public Policy
POSC 439 Senior Seminar in Law, Politics, and Policy

Political Theory
POSC 225 Issues in Political Theory
POSC 301 Classical Political Theory
POSC 303 Modern Political Theory
POSC 304 Recent Political Theory
POSC 306 Contemporary Political Ideologies
POSC 308 American Political Theory
POSC 401 Women in Political Theory
POSC 409 Senior Seminar in Political Theory

Global Politics
POSC 218 Global Politics
POSC 353 Governments and Politics of Western Europe
POSC 358 Contemporary Latin American Politics
POSC 362 Society and National Politics of China
POSC 367 Governments and Politics of the Middle East
POSC 371 Introduction to International Politics
POSC 376 International Law
POSC 378 Politics and Practice of the UN
POSC 450 Comparative Political Movements
POSC 455 Comparative Revolutionary Change
POSC 461 The Politics of Development
POSC 463 Nationalism and National Identities
POSC 479 Senior Seminar in Global Politics
POSC 481 U.S. – Latin American Relations
POSC 482 American Foreign Policy
POSC 485 International Political Economy
POSC 486 National Security Policies

General
POSC 199 Introduction to California Government
POSC 300 Scope/Methods Political Science
POSC 388 Cyberspace Citizenship
POSC 391 American Government
POSC 395 Politics Through Culture
POSC 399 Introduction to California Government
POSC 490H Honors Seminar
POSC 491H Honors Research
POSC 492H Honors Thesis
POSC 493 Special Topics
POSC 494 Politics of the Future
POSC 496 Washington Center Internship
POSC 497 Special Topics
POSC 498 Practicum in Politics
POSC 499 Readings and Conference in Political Science
Political Science Courses (POSC)

LOWER DIVISION

100. Introduction to American Government (3)
Prerequisite/Corequisite: GE A1 requirement.
Introductory survey of American Political Institutions, politics, and policy, including government and politics in California. Constitutional foundations and current controversies. Satisfies the general education requirement and the California teaching credential requirement.

105. Introduction to Critical Thinking (3)
Prerequisites/Corequisite: ENGL 100 or GE Composition (Area A1).
Introduction to critical thinking through study of philosophical writing, political rhetoric, and political propaganda. Emphasis on distinguishing facts from values, inductive from deductive reasoning, emotional responses from reasoned judgments; relationship between language and logic; the role of inference; intellectual honesty.

199. Introduction to California Government (1)
Prerequisite: POSC 100.
Introductory survey of California political institutions, politics and policy. Satisfies the general education California state and local government requirement for students who have taken American government without a California component or who have received Advanced Placement credit for American Government. Not open for credit to students with credit in POSC 326.

212. How Democratic is the United States? (3)
Prerequisites: GE Foundation requirement; POSC 100.
Examination of persistent challenges to citizen control of government in the U.S., including growth of executive power; economic inequality; racial inequality; rise of infotainment; decline of political participation and civic engagement.

218. Global Politics (3)
Prerequisites: GE Foundation requirement; POSC 100.
Study issues central to politics in a global context, such as democracy, communism, fascism, democratization, revolution, liberalism, and anti-liberalism. Examine questions of national sovereignty, as well as the relation between nation states and the rise of non-state and trans-state actors.

225. Issues in Political Theory (3)
Prerequisites: GE Foundation requirement; POSC 100.
Study and discussion of issues including revolution, power, justice, alienation, the nature of democracy, and other important political concepts. Views of theorists such as Plato, Hobbes, Rousseau, Mill, and Marx will be examined.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course.

300. Scope and Methods of Political Science (3)
Prerequisite: POSC 100.
Examines what political scientists do. Focus on quantitative and qualitative techniques employed by political scientists to understand political phenomena. Examples draw on all subfields from political science: American politics, comparative politics, international relations, political theory, public law and public policy. Letter grade only (A-F).

301. Classical Political Theory (3)
Prerequisites: GE Foundation requirement; POSC 100.
Ancient Greek and Roman roots of political theory. Socrates and the Sophists; Plato; Aristotle; Cicero; Polybius; and the Stoics. Examines relationship between the individual citizen and the Polis, justice and equality, democracy and dictatorship; the political culture of Mediterranean world.

303. Modern Political Theory (3)

304. Recent Political Theory (3)
Critical examination of major themes in political thought in industrial and post-industrial society, from the late 19th century until today.

306. Contemporary Political Ideologies (3)
Critical examination of the nature and role of ideologies in contemporary politics. Conservatism, liberalism, socialism, communism and fascism in theory and practice.

308. American Political Theory (3)
Critical examination of theorists, concepts and forces which have shaped American political consciousness from Puritans to present.

311. Constitutional Law: Power (3)
Prerequisite: POSC 100 or POSC 391 or equivalent.
Judicial interpretation of the U.S. Constitution. Judicial review; the power of the Presidency and the Congress; state governmental authority; nature of the American federalism.

312. Constitutional Law: Rights (3)
Prerequisite: POSC 100 or 391 or equivalent.
Analysis of the rights and guarantees contained in the Bill of Rights and other constitutional and statutory provisions. Examination of leading cases.

321. The Media and American Politics (3)
Prerequisites: GE Foundation requirement; POSC 100 or consent of instructor.

322. Parties, Campaigns, and Elections (3)
Prerequisites: GE Foundation requirement.
The nature and impact of the American two-party system; why people vote as they do; how candidates seek electoral support. Comparison of American party politics to party politics in other democratic countries.

323. Racial and Ethnic Politics - U.S. (3)
Prerequisites: GE Foundation requirement; POSC 100.
Examination of the political activities of racial and ethnic minority groups in the United States, including American Indians, African Americans, Latino Americans and Asian/Pacific Americans. Political debates over competing approaches; strategies and public policies promoting equality in the U.S.

326. California Government in Comparative Perspective (3)
Prerequisites: GE Foundation requirement.
The government and politics of American States including intergovernmental relations. Special focus on political institutions, current issues, and public policies in California.
327. Urban Politics (3)
Social conflicts, political processes and governmental Institutions in American urban areas. Emphasis on urban political culture, power structures, interest groups, social movements, urban governance and policy-making. Evaluation of urban political problems and proposed solutions.

328. Public Policy (3)
Prerequisites: GE Foundation requirement; POSC 100.
Analysis of the American policy process with special attention to the social, economic, cultural, and political factors that influence policy choices.

329. Cases in Public Policy Making (3)
Prerequisites: GE Foundation requirement and POSC 100
Intensive examination of the policy process through the in-depth analysis of selected public policies.

353. Government and Politics of Western Europe (3)
Prerequisites: GE Foundation requirement; POSC 100
Examination of selected European democracies, with emphasis on governmental structure, functions and political processes and their relationship to current problems.

358. Contemporary Latin American Politics (3)
Study of government and politics with emphasis on similarities and differences among Latin American states. Focus on principal groups and major issues in the political process. Conflicting explanations of the obstacles to development and other problems will be examined.

362. Society and National Politics of China (3)
Prerequisites: Upper division status; completion of GE Foundation; Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Writing-intensive study of the People's Republic of China, including its origin, ideology and organization. Contemporary social, economic and political developments.

367. Governments and Politics of the Middle East (3)
Emergence and development of the contemporary political systems of the Middle East; the Arab-Israeli dispute; the role and importance of the region in international politics.

371. Introduction to International Politics (3)
Prerequisites: GE Foundation requirement; POSC 100.
Relations among nation-states. Why countries sometimes cooperate and sometimes go to war. Roles of intergovernmental organizations like the UN, the WTO, and NATO, and non-governmental actors like Amnesty International and Al-Qaeda; international trade and finance; war, peace, terrorism and diplomacy.

376. International Law (3)
Nature and historical development of international law; determination of rules of international law; International community under law; recognition of states and governments; jurisdiction; settlement of international disputes; war aggression and neutrality.

378. Politics and Practice of the UN (3)
Examination of historical development of international organization from the Concert of Europe to the United Nations. Analysis of contemporary international organization, its functions, problems and prospects in the context of the world situation.
May be repeated to a maximum of 9 units in different semesters. No more than 3 units may be applied toward the major or minor in political science.

388. Cyberspace Citizenship (3)
Prerequisites: GE Foundation requirement; one Explorations course, and upper-division standing.

391. American Government (3)
Prerequisites: GE Foundation requirement.
Survey of American government and politics, including attention to California government. Constitutional foundations and current controversies. Satisfies the general education requirement and the California teaching credential requirement.
Not open for credit to students with credit in POSC 100.

395. Politics Through Culture (3)
Prerequisites: GE Foundation requirement, one Explorations course, and upper division standing.
Study of politics through cultural analysis. Alternative theoretical perspectives on contemporary cultural artifacts such as art, film, music, and the media.

399. Introduction to California Government (1)
Prerequisite: POSC 100.
Introductory survey of California political institutions, politics and policy. Satisfies the general education California state and local government requirement for students who have taken American government without a California component or who have received Advanced Placement credit for American Government.
Not open for credit to students with credit in POSC 199 or POSC 326.

401. Women in Political Theory (3)
Prerequisite: Upper-division status; completion of GE foundation; students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Study of the evolution of feminist arguments in Western political thought and the process by which gender has come to be regarded as a critical category equal in importance to race, class, ethnicity, sexual orientation, and religion.
Same course as WGSS 402. Not open for credit to students with credit in WGSS 402.

409. Senior Seminar in Political Theory (3)
Prerequisites: Nine units in Political Theory courses or consent of instructor.
Intensive study of selected conceptual and theoretical problems in political theory.
Letter grade only (A-F).

412. Law and Social Change (3)
Prerequisites: GE Foundation requirement; POSC 100.
Legal strategies pursued by social movements to remedy discrimination in the U.S. Legislative, administrative, and judicial responses. Gender equity, sexual harassment, voting rights, racial discrimination, fair housing, labor standards, sexual orientation, environmental justice, and American Indian rights.

414. Jurisprudence (3)
Fundamental legal philosophies, sources and classifications of law. Relationship of law to other disciplines and societal institutions.
417. Legal Practices: Moot Court (3)
Prerequisites: POSC 311 or POSC 312, and either POSC 412 or POSC 414; and upper division standing.
Study and acquisition of the skills of lawyering, including legal research, reasoning, writing, and trial advocacy. Substantive study of civil liberties.
May be repeated to a maximum of 9 units in different semesters. No more than three units of this course may be applied toward the major or minor in political science.

418. Legal/Judicial Apprenticeship (3)
Prerequisite: Consent of instructor.
Courtroom, law office, public legal agency, and/or non-profit legal agency experience in conjunction with reading and research directed by a faculty member. May be repeated for a maximum of 6 units in different semesters.
No more than three units of this internships course may apply toward the major in political science. A maximum of 6 units may be earned in POSC 418, POSC 447, POSC 448, and POSC 498 combined.

422. Public Opinion and Political Behavior (3)
What Americans think and feel about politics and why they act as they do. Topics include the formation and development of public opinion; how public opinion is measured; political socialization; political culture; and political participation.

423. The American Presidency (3)
The roles and powers of the American presidency with emphasis on major public policies of recent presidents.

424. The United States Congress (3)
Analysis of the origin, development, and behavior of U.S. legislative bodies. Leadership, organization and procedures, problems and principles of law-making. Legislative relations with the executive and other governmental agencies.

430. Fundamentals of Public Administration (3)
Principles and practices of federal, state and local administration.

431. Public Policy Analysis (3)
Examination of the meaning and use of concepts and methods employed in public policy decision analysis, including an overview of the decision process, sources and methods of handling policy-relevant data, and methods and techniques of program evaluation and policy analysis.

432. Public Values and Public Policy (3)
Critical examination of selected value choices involving how and by whom public policy is to be made, and choices involving what should be the content and goals of public policy.

439. Senior Seminar in Law, Politics, and Policy (3)
Prerequisite: Nine units in Law, Politics, and Policy courses or consent of instructor
Intensive study of selected concepts, issues, and approaches to the study of American government and politics, with special attention to the intersection of law, politics, and policy.
Letter grade only (A-F).

447. Public Service Internship I (3)
Prerequisite: GE Foundation requirement; POSC 100; consent of instructor.
Internships in one of the various federal, state, or local governmental units in the immediate area.
A maximum of 6 units may be earned in POSC 418, POSC 447, POSC 448, and POSC 498 combined.

448. Public Service Internship II (3)
Prerequisite: GE Foundation requirement; POSC 100; consent of instructor.
Internships in one of the various federal, state, or local governmental units in the immediate area.
A maximum of 6 units may be earned in POSC 418, POSC 447, POSC 448, and POSC 498 combined.

450. Comparative Political Movements (3)
Prerequisites: GE Foundation requirement, one Explorations course, and upper division standing.
Comparative study of the causes, progression, and consequences of political movements.

455. Comparative Revolutionary Change (3)
Roots of revolution. Emphasis on the historical setting, ideology, socio-economic factors, political leadership, organization and nationalism. Analysis of revolutionary conditions, causes and tactics past and present.

461. The Politics of Development (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Problems of political development in the emergent nations of Asia, Africa and Latin America.

463. Nationalism and National Identities (3)
Prerequisites: GE Foundation requirement; POSC 100.
Consideration of the impact of nationalism on contemporary world politics with special attention to the role of national identities in the rise of political violence, national liberation movements, and the struggle for democracy. Close investigation of multiple historical and contemporary cases.
Same course as I/ST 463. Not open for credit to students with credit in I/ST 463.

479. Senior Seminar in Global Politics (3)
Prerequisite: Nine units in Global Politics courses or consent of instructor
Intensive study of selected conceptual and theoretical problems in global politics.
Letter grade only (A-F).

481. U.S. - Latin American Relations (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
U.S. policies toward Latin America and the Caribbean. Recent debates about these policies as well as their historical and global contexts. Survey of major issues, including U.S.-Cuba policy, transnational crime/drug-trafficking, international finance, trade integration, and migration.

482. American Foreign Policy (3)
Prerequisites: GE Foundation requirement; POSC 100.
Concepts, strategies, and the shaping of American relations with other states, with special emphasis on the post-World War II period. National security, economic, and political-diplomatic concerns as they present new challenges to the United States.

485. International Political Economy (3)
Prerequisites: GE Foundation requirement; POSC 100.
Politics of global relations, including monetary and trade regimes, markets and multinational corporations. Emphasis on issues of confrontation and collaboration between countries regarding development strategies, trade, and technology transfer.
Prospective students are strongly recommended to take POSC 371.

486. National Security Policies (3)
Analysis of strategic posture with emphasis on military, political and economic inter-relationships as they influence national security and international politics.
490H. Honors Seminar (3)
Prerequisites: Admission to the Honors Program in Political Science.
The nature and development of political science and its relationship to other disciplines in the Social Sciences. Recent developments in conceptual analysis and theory are emphasized. (Seminar.) Course meets with POSC 500, POSC 525, POSC 550, or a 600-level POSC course chosen in consultation with the chair.

491H. Honors Research (3)
Prerequisite: Admission to the Honors Program in Political Science.
Research for writing an Honors thesis under the direction of a faculty member. (Independent Study.)

492H. Honors Thesis (3)
Prerequisites: POSC 491H.
Research and writing of an Honors thesis under the direction of a department faculty advisor. (Independent Study)

493. Selected Topics in Political Science (3)
Prerequisite: Consent of instructor.
Analysis of selected contemporary issues and problems.
Topics announced in the Schedule of Classes.

494. Politics of the Future (3)
Prerequisites: GE Foundation requirement, one or more Explorations courses, and upper-division standing.
Study of present-day global problems: overpopulation, depletion of resources, environmental decay and their future political implications. Examination of alternative policies, future politics and institutional change. The technological revolutions and the totalitarian temptation.

496. Washington Center Internship (3)
Prerequisites: Upper-division standing and consent of instructor.
Students undertake a 30-35 hr. per week career-related internship in a federal, corporate or independent sector agency located in Washington D.C. A final written report is required. Concurrent enrollment in an independent studies course required. Credit/No Credit grading only. May be repeated to a maximum of 9 units.

497. Selected Topics in Political Science (3)
Prerequisite: Consent of instructor.
Analysis of selected contemporary issues and problems.
May be repeated to a maximum of 6 units with different topics.
Topics announced in the Schedule of Classes.

498. Practicum in Politics (1-3)
Prerequisite: Consent of instructor and department chair.
Political or governmental experience supplemented by reading and research under the direction of a faculty member.
May be repeated for a maximum of 6 units in the same semester. No more than three units may apply toward the major in political science. A maximum of 6 units may be earned in POSC 418, POSC 447, POSC 448, and POSC 498 combined.

499. Readings and Conference in Political Science (1-3)
Prerequisite: Consent of instructor.
Directed reading to permit independent pursuit by advanced students on topics of special interest.
Hours to be arranged. Graduate students who have had this course as an undergraduate may repeat it.

GRADUATE LEVEL

500. Foundations and Scope of Political Science (3)
Prerequisite: Graduate standing in Political Science or consent of instructor.
Competing approaches to the analysis of political phenomena. Substantive models of social and political order and change as well as methodological arguments about the nature of explanation in political science.
Letter grade only (A-F).

525. Seminar in Political Theory (3)
Prerequisite: Graduate standing in political science or consent of instructor.
Analysis of key topics in the canon of Western political theory, including ancient political thought, modernity (including feminism and identity politics), and postmodernity (eg., postcolonial theory, deconstruction).
Letter grade only (A-F).

550. Research Methods in Political Science (3)
Prerequisite: Graduate standing in political science or consent of instructor.
Methods of empirical political science research; the formulation of hypotheses, problems and standards of measurement and observation; methods of data collection; research design and logic of data analysis. No prior knowledge of statistics is assumed.
Letter grade only (A-F).

590. Advanced Study (3)
Prerequisite: Consent of Graduate Coordinator and Instructor.
Study under the supervision of a faculty member. Student must fulfill requirements of a selected upper division course plus additional work appropriate to graduate study as determined by the Instructor of the course.
May be repeated to a maximum of 6 units with different topics.

599. Graduate Studies (3)
Prerequisites: Consent of Graduate Coordinator and instructor.
Individual graduate level study and research of special topics under the supervision of a faculty member.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

600. Seminar in International Politics (3)
Prerequisites: Graduate standing in Political Science or consent of instructor; POSC 371 or equivalent.
Examination of the role of power, multiple dimensions of national interest, collective security, world peace, nationalism, and imperialism.
Letter grade only (A-F).

605. Selected Topics in International Politics (3)
Prerequisite: Graduate standing in political science or consent of instructor.
Analysis of historical and contemporary international events, processes, trends, and system dynamics. Emphasis on the application of both critical and practical, problem-solving theories and methods to the assessment and evaluation of foreign policy options and choices. Case study approach.
Letter grade only (A-F).

610. Seminar in Comparative Politics (3)
Prerequisite: Three upper division units in comparative government.
Study of key theories and concepts of comparative politics, such as democratization, economic and political development, social movements and revolutions.
Letter grade only (A-F).
615. Selected Topics in Comparative Politics (3)
Prerequisite: Graduate standing in political science or consent of instructor
Application of comparative politics concepts and theories to contemporary issues, with particular emphasis on the policy implications for various countries and regions of the world.
Letter grade only (A-F).

640. Seminar in American Political Behavior (3)
Prerequisites: Graduate standing in political science or consent of instructor
Examination of contemporary literature on mass political behavior in the United States, including overt forms of political behavior such as voting, and long-standing questions about the origins and consequences of the American public's political attitudes.
Letter grade only (A-F).

642. Seminar in American Political Institutions (3)
Prerequisite: Graduate standing in political science or consent of instructor
Examination of U.S. political institutions, including why the U.S. has the institutions it has, how scholars understand them, the nature of these institutions, and the linkage institutions that connect citizens to government, including political parties and interest groups.
Letter grade only (A-F).

644. Selected Topics in Policy and Politics (3)
Prerequisite: Graduate standing in political science or consent of instructor
Approaches to the study of American policy and politics. Analysis of historical and contemporary policymaking, and the impact of public policy upon institutions and political behavior.
Letter grade only (A-F).

646. Selected Topics in Law and Politics (3)
Prerequisite: Graduate standing in political science or consent of instructor
Examination of the role, processes, and dynamics of law, courts, and judges in the American political system, including law and American society; political controversies over judges, courts and cases; features of courts; judicial selection and decision-making; legal interpretation; and judicial effectiveness.
Letter grade only (A-F).

695. College Teaching Practicum (3)
Prerequisite: Consent of Graduate Coordinator.
Internship provides teaching experience in community college. No more than three units of this practicum may be applied to the Masters requirements in Political Science.
Credit/No Credit grading only.

697. Directed Research (3)
Prerequisite: Consent of Graduate Coordinator.
Intensive study under the guidance of a faculty member. Three units required of non-thesis students who have been advanced to candidacy for the master's degree in political science.
Letter grade only (A-F).

698. Thesis (3)
Prerequisite: Consent of Graduate Coordinator.
Planning, preparation and completion of thesis for the master's degree.
May be repeated to a maximum of 6 units.
Letter grade only (A-F)
PSYCHOLOGY
College of Liberal Arts

Department Chair: David J. Whitney
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Website: http://www.cla.csulb.edu/departments/psychology/
Department Administrator: Sheri Hale
Advisors:
Undergraduate: ATLAS Advising Center / (562) 985-7804
Graduate: Diane Roe / (562) 985-5000
Psychology Research Office: PSY 206 / (562) 985-5680

Career Possibilities
Professor • Research Scientist • Research Analyst • Clinical Psychologist • Research Technician • Safety Officer • Laboratory Manager • Market Research • Statistician • Nursing • Human Factors • Counselor • Community Organization Worker • Personnel Analyst • Employment Interviewer • School Psychologist • Sports Psychologist • Career Counselor • Marriage and Family Therapist • Lawyer • Parole and Probation Officer • Teacher • Public Relations Worker • Researcher • Claim Adjuster • Sales Representative • Industrial Psychologist • Vocational Rehabilitation Counselor • Manager Trainee (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.) Various entry-level positions in business and industry are available for graduates regardless of academic discipline.

Introduction
Please visit our website www.csulb.edu/psychology. For the Bachelor’s degree, select “Undergraduate Program.” For the Master of Arts in Psychological Research, Master of Science in Human Factors, and Master of Science in Industrial-Organization Psychology degrees, select “Graduate Programs.” For all programs, advising is available year round.

The Master’s Programs provide specialized training in three areas: Master of Arts - Psychological Research Program, Master of Science in Human Factors, and the Master of Science in Industrial-Organizational Psychology.

Undergraduate Programs

Bachelor of Arts in Psychology
(120 units)

Admission Under Impaction
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/transfers.html.

Learning Goals and Technical Skills
Students who graduate with a major in psychology should have current knowledge of: the major theories in psychology; the methodologies of psychological research and statistical concepts; the biological processes underlying behavior; sensation, perception, information processing and retention; how behaviors develop and change; how internal, environmental, and social factors influence behavior; individual differences in behavior, including those related to gender, ethnicity, and culture; different perspectives on the origin and treatment of abnormal behavior; ethical issues in teaching, research, and the practice of professional psychology.

Requirements
The psychology curriculum is designed to provide undergraduate students with a broad background in the principles of Psychology.

Lower Division (14 units):
Take all of the following courses:
PSY 100 General Psychology (3)
* "C" or better required
Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

PSY 110 Introductory Statistics (4)
* "C" or better required
Prerequisites: Eligible to take a General Education Mathematics course.

PSY 220 Research Methods (4)
* "C" or better required
Prerequisites: PSY 100, PSY 110, or SOC 170 or HDEV 190
250 with a grade of 'C' or better, and Completion of GE A1 (Written Communication) requirement.

PSY 241 Psychobiology (3)
Prerequisites: PSY 100, GE A1 requirement.

Upper Division:
Take the following course:
PSY 301 Introduction to Psychology as Discipline and Profession (3)
Prerequisites: PSY 100.
Take two courses (6 units) from the following:
PSY 331, PSY 332, PSY 333, PSY 336, PSY 337; PSY 340 or PSY 341 or PSY 342;
Take two courses (6 units) from the following:
PSY 351, PSY 356; PSY 361 or PSY 365;
Take two courses (6 units) from different groups:
1. PSY 354, PSY 362, PSY 363, PSY 370, PSY 383;
2. PSY 310, PSY 314, PSY 315, PSY 359;
3. PSY 327, PSY 346, PSY 373, PSY 375, PSY 378, PSY 381;
Take 6 units of 400-level PSY courses. No more than 3 units from PSY 405, PSY 406A or PSY 406B may be counted in this category: PSY 499 cannot be counted to satisfy this requirement.

Take 6 units of any upper division psychology courses not used to satisfy the requirements above;

The mission of the Psychology Resource Office (Pro-PSY room 206) is to prepare psychology majors for life after graduation. PRO provides students with guidance to get the most out of their education in order to best achieve their future career goals. Some of our most popular resources include: 1) learning about the department (e.g. what specific courses are like) 2) how to get involved in important activities (e.g., research, internships), 3) finding out about graduate school programs and how to maximize their application’s competitiveness, and 4) how to find job opportunities with a Psychology B.A. PRO also provides a one-on-one mentoring program called PALS (PRO Academic Life Solutions) to assist psychology majors with maximizing their academic success and to explore graduate school/career goals.

Honors in Psychology

Admission Requirements

1. Admission to the major.
2. At least a 3.5 GPA in all Psychology courses.
3. At least a 3.25 overall GPA.
4. Signed contract from a psychology faculty member agreeing to serve as Honors Thesis Chair.
5. Submission of honors application to the Psychology Honors Advisory Committee.
6. Commitment to three semesters in the Honors program.

Requirements

In order to graduate with Honors in Psychology a student must:

1. Complete all regular requirements for the psychology major.
2. Earn minimum 3.5 upper division GPA and minimum 3.5 Psychology GPA by the time of graduation.
4. Complete 3 units in PSY 490H: Special Topics - Honors with a “B” or higher.
5. Complete 3 units in PSY 496H: Research Preparation: Development of a Thesis Proposal with a "B" or higher.
6. Complete 3 units in PSY 498H: Senior Honors Thesis with a "B" or higher.
7. Complete 1 unit in PSY497H: Senior Honors Thesis - Presentation.
8. Complete 3 units in any other 400 level psychology course exclusive of PSY 405, PSY 406 or PSY 499.

Minor in Psychology

The Minor in Psychology is available to any non-Psychology major. Due to the impacted status of the Psychology Department, students wishing to earn a minor must earn a "C" or better in PSY 100, PSY 110 and PSY 220, prior to taking any other PSY courses that will count toward the minor.

A minimum of 23 units will be required; 9 of which must be upper division.

Take all the following courses:

- PSY 100 General Psychology (3)  
  Prerequisite/Corequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.
- PSY 110 Introductory Statistics (4)  
  * "C" or better required  
  Prerequisites: Eligible to take a General Education Mathematics course.
- PSY 220 Research Methods (4)  
  Prerequisites: PSY 100, PSY 110, or SOC 170 or HDEV 190 with a grade of 'C' or better, and Completion of GE A1 (Written Communication) requirement.
- PSY 241 Psychobiology (3)  
  Prerequisites: PSY 100, GE A1 requirement.

Take 9 upper-division psychology units including at least one course from the following courses: PSY 331, PSY 332, PSY 333; PSY 336, PSY 337; PSY 340 or PSY 341 or PSY 342; and at least one course from PSY 351, PSY 356; PSY 361 or PSY 365; and one upper division Psychology elective.

Graduate Programs

For information about graduate programs go to www.csulb.edu/psychology, select "Graduate Programs."

The Department offers the following graduate programs: Master of Arts degree in Psychological Research; Master of Science degree, option in Human Factors and option in Industrial/Organizational Psychology. In each option a basic core of courses, including a thesis, is required; however, there is the opportunity for additional work in areas of special interest.

Admission to Graduate Programs

A department application for admission may be obtained on the Psychology Department web site (go to www.csulb.edu/psychology, select "Graduate Programs"). Acceptance by the department is contingent upon (a) GPA based on last 60 semester units available at time of application; (b) Graduate Record Examination (GRE) General Test scores; and (c) three letters of recommendation. For entry in the fall semester, all department application materials, including GRE scores and letters of recommendation, must be received by the department Graduate Advisor by December 1 for the Master of Science - Industrial/Organizational option, and January 15 for both the Master of Arts - Psychological Research option and the Master of Science - Human Factors option. A separate application to CSULB must be filed via www.csumentor.edu by December 1 for the Industrial/Organizational option, and January 15 for the Psychological...
Research and Human Factors options - contact Enrollment Services for transcript deadlines.

Financial Support
Students accepted into the graduate programs may apply for graduate assistantships (which provide monthly stipends) in Psychology or related departments on campus. Federal Work Study assignments are available in the Department, but must be applied for through the University Financial Aid Office one or two semesters prior to obtaining the assignment; other aid available includes the Graduate Research Fellowship (GRF). One student from the Master of Arts - Psychological Research and the Master of Science - Industrial/Organizational Psychology programs’ entering class may be awarded a J. Robert Newman Scholarship. Boeing University Relations Human Factors Graduate Scholarship and NASA University Research Centers Scholarships are offered through the Master of Science - Human Factors program.

Master of Arts in Psychology

Option in Psychological Research
This is a 30-unit degree program.

Prerequisites
All students fulfill the requirements in Item #1 and choose either Item #2 or Item #3.
1. Take 6 units of college level work in chemistry, physics, biology or mathematics as approved by the graduate advisor. No more than 3 of the 6 units may be in approved mathematics courses.
2. A bachelor’s degree with a major in psychology that includes:
   A. Take two courses from different groups:
      1. PSY 331, PSY 332, PSY 333
      2. PSY 336, PSY 337, PSY 378, PSY 379
      3. PSY 340, PSY 341, PSY 342
   B. Take one course from the following:
      PSY 351, PSY 356, PSY 361, PSY 365
   C. Take the following course:
      PSY 310 Intermediate Statistics (4)
      Prerequisites: PSY 100, PSY 110.
3. A bachelor’s degree with a major other than psychology and 24 units of upper division psychology substantially equivalent to those required for the baccalaureate degree at this university, including:
   A. Take two courses from different groups:
      1. PSY 331, PSY 332, PSY 333
      2. PSY 336, PSY 337, PSY 378, PSY 379
      3. PSY 340, PSY 341, PSY 342
   B. Take one of the following courses:
      PSY 351, PSY 356, PSY 361, PSY 365
   C. Take the following course:
      PSY 310 Intermediate Statistics (4)
      Prerequisites: PSY 100, PSY 110.

Advancement to Candidacy
Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students. It also signifies approval of a plan of study by the graduate student’s major, department, and college. Advancement requirements are:
1. Application for Advancement to Candidacy must be completed prior to or concurrent with enrollment in PSY 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Arts, Psychological Research option degree.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. A minimum 3.0 overall GPA and a 3.0 GPA in all units undertaken for the program (at least 6 graduate units).
6. Enrollment in regular session.

Requirements
1. The student must complete, as a graduate student, 30 units of graduate coursework (501-698), 24 of which must be in Psychology (not including PSY 697) including:
   A. Take one of the following:
      PSY 511, PSY 512 if PSY 411 or PSY 412 or equivalent not taken as an undergraduate;
   B. Take the following course during the first semester:
      PSY 596 Proseminar on Graduate Research (3)
      Prerequisites: Admission to MAPR program, consent of instructor; consent of graduate advisor.
   C. Take the following course (comprehensive exam required) during the second semester:
      PSY 696 Research Methods (3)
      Prerequisites: PSY 411/511 or PSY 412/512, PSY 596, and consent of graduate advisor.
   D. Take three courses chosen from the following:
      PSY 631, PSY 632, PSY 633, PSY 634, PSY 635, PSY 637, PSY 651, PSY 656, PSY 661 or PSY 678
      (with comprehensive exams in two of the three courses);
   E. Take the following course:
      PSY 698 Thesis (6)
      Prerequisites: Advancement to candidacy, consent of graduate advisor.
2. With graduate advisor’s approval a maximum of 6 units from related areas may be used for 6 of the 30 units.
3. Attendance at six Department Colloquia, four of which must be completed prior to preliminary oral examination, all six must be completed prior to final oral examination.
4. Completion of all requirements as established by the MA Psychological Research Committee.
5. Comprehensive examinations taken in three of the four required graduate seminars, as outlined in 1C and 1D above.
6. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)
Student Learning Outcomes
By the end of the M.A. program in psychological research, students will demonstrate that they can:
1. Summarize and critique the psychology literature, particularly within their chosen area of specialization.
2. Use core theories from their area of specialization to guide the development and implementation of research studies.
3. Demonstrate their understanding of the range of basic and applied research designs used to address psychological issues.
4. Demonstrate their understanding of the development of research instruments and indicators of reliability and validity relative to one’s area of specialization.
5. Demonstrate their knowledge of the range of analytic techniques that are used in psychology, particularly univariate and multivariate statistical techniques.
6. Communicate both orally and in writing at a level that is appropriate for professionals in their chosen area of specialization.

Master of Science in Psychology
Option in Human Factors

Prerequisites
1. An undergraduate major in Psychology or in another field with 24 units of upper division psychology. A minimum grade point average of approximately 3.0 for the last 60 semester units (90 quarter units) and for all PSY units.
2. Take all the following courses or their equivalents:
   - PSY 310 Intermediate Statistics (4)  
     Prerequisites: PSY 100, PSY 110.
   - PSY 331 Sensation and Perception (3)  
     Prerequisites: PSY 100, PSY 220, PSY 241.
   - PSY 332 Human Cognition (3)  
     Prerequisites: PSY 100, PSY 220, PSY 241.

Students lacking only PSY 310 may be admitted to the program but must complete the course their first semester in attendance.

Advancement to Candidacy
Satisfy the general requirements of the university for advancement to candidacy.

Requirements
1. A minimum of 36 units of upper division and graduate work including the following:
   - PSY 511 Statistical Design & Analysis of Experiments (3)  
     Prerequisite: PSY 310 or consent of instructor.
   - PSY 518 Computer Applications in Psychology (3)  
     Prerequisites: PSY 310 or consent of instructor.
   - PSY 527 Human Factors (3)  
     Prerequisites: PSY 310 and two of the following: PSY 331, 332 or 333.
   - PSY 627 Human Factors’ Methods (3)  
     Prerequisite: PSY 527 or consent of instructor.
   - PSY 633 Seminar in Perception and Attention (3)  
     Prerequisites: PSY 331 or PSY 332 or consent of instructor; consent of graduate advisor.
   - PSY 635 Seminar on Situation Awareness (3)  
     Prerequisites: PSY 331 or PSY 332 or consent of instructor or/and consent of graduate advisor.
   - PSY 698 Thesis (1-6)  
     Prerequisites: Advancement to candidacy, consent of graduate advisor.
   - MAE 508 Systems Engineering and Integration (3)  
     Prerequisite: Senior standing or consent of instructor.
   - CECS 448 User Interface Design (3)  
     Prerequisite: CECS 343 or consent of instructor.

Take one of the following:
   - PSY 533 Research in Cognition and Learning (3)  
     Prerequisites: PSY 220, 310, and PSY 331 or PSY 332 or PSY 333.
   - PSY 634 Seminar in Cognition (3)  
     Prerequisites: PSY 332 or PSY 333 or consent of instructor; consent of graduate advisor.

Take one course from the following:
   - PSY 512, PSY 544, PSY 696, PSY 697; ENGL 419 or otherwise approved by the program committee.

2. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

Student Learning Outcomes
At the end of the program, students should have the ability to:
1. Apply their knowledge of psychology to the design of jobs, information systems, consumer products, workplaces, and equipment to improve user performance, safety, and comfort.
2. Apply methodologies that are used in the design of human-machine systems.
3. Design research to answer basic and applied issues in Human Factors.

Option in Industrial and Organizational Psychology
This is a 36-unit program.

Prerequisites
1. A bachelor’s degree with a major in psychology or 24 upper division units of psychology.
2. Take both of the following courses:
   - PSY 220 Research Methods (4)  
     Prerequisites: PSY 100; PSY 110 or SOC 170 or HDEV 190 with a grade of ‘C’ or better, and Completion of GE A1 (Written Communication) requirement.
   - PSY 310 Intermediate Statistics (4)  
     Prerequisites: PSY 100, PSY 110.

Take one of the following courses:
   - PSY 314, PSY 315
   - PSY 332, PSY 333
   - PSY 351, PSY 381, PSY 453/553

Students may be admitted to the MSIO program if they lack only one required course. The missing course must be completed within the first year of graduate study. However, PSY 314 or PSY 315 AND PSY 351 or PSY 381 or PSY 453/553 must be completed prior
Advancement to Candidacy

Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students and signifies approval of a plan of study by the graduate student's program, department, and college. The prerequisites to advancement are:

1. Application for Advancement to Candidacy must be completed prior to or concurrent with enrollment in PSY 699 (Directed Research and Portfolio) or PSY 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Science, Industrial and Organizational option degree.
4. Fulfillment of the Graduation Writing Assessment Requirement (GWAR).
5. A minimum 3.0 overall GPA and a 3.0 GPA in all units undertaken for the program (at least 6 graduate units).
6. Be enrolled in regular session.

Requirements

Students must declare their intention to pursue one of two possible tracks within the MSIO degree, either Track 1: Applied, or Track 2: Thesis Research at the time of Advancement to Candidacy. Students intending to pursue a career in the application of Industrial-Organizational psychology to business and industry are encouraged to pursue the Applied track. Students seeking to pursue a doctoral degree in Industrial-Organizational psychology immediately upon graduation of the MSIO degree are encouraged to pursue the Thesis Research track.

Track 1: Applied/Portfolio

1. The student must complete a minimum of 36 units of graduate course work.
Take all of the following:

PSY 515 Test Construction Theory and Practice (3)
Prerequisites: PSY 310 and either PSY 314 or PSY 315.

PSY 581 Organizational Psychology (3)
Prerequisites: PSY 351 or PSY 381 or PSY 453/553.

PSY 582 Research in Industrial and Organizational Psychology (3)
Prerequisites: PSY 220 and PSY 310.

PSY 585 Proseminar in Personnel Psychology (3)
Prerequisites: PSY 314 or PSY 315.

PSY 683 Issues Organizational Development (3)
Prerequisites: PSY 581.

PSY 686 Issues in Training (3)
Prerequisites: PSY 332 or PSY 333, and PSY 585.

PSY 688 Practicum in Industrial and Organizational Psychology (3)
Prerequisites: At least 12 units of graduate-level coursework within the MSIO program.

PSY 699 Directed Research and Portfolio (3)
Prerequisites: Advancement to candidacy, consent of graduate advisor and instructor.

Take two courses chosen from the following:

PSY 511, PSY 512, PSY 523 or an approved substitute

Take two courses from the following:

PSY 501, PSY 518, PSY 527, PSY 533, PSY 544, PSY 553, PSY 575, PSY 634, PSY 637, PSY 651, PSY 656; HRM 445

2. An approved Student Learning Portfolio. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

3. Students with credit in PSY 411, PSY 412, or PSY 423 as undergraduates may petition the MSIO Program Committee to substitute a maximum of 3 units from related areas toward the 36-unit program.

Track 2: Research/Thesis

1. The student must complete a minimum of 36 units of graduate course work.
Take all of the following:

PSY 515 Test Construction Theory and Practice (3)
Prerequisites: PSY 310 and either PSY 314 or PSY 315.

PSY 581 Organizational Psychology (3)

PSY 582 Research in Industrial and Organizational Psychology (3)
Prerequisites: PSY 220 and PSY 310.

PSY 585 Proseminar in Personnel Psychology (3)
Prerequisites: PSY 314 or PSY 315.

PSY 683 Issues Organizational Development (3)
Prerequisites: PSY 581.

PSY 686 Issues in Training (3)
Prerequisites: PSY 332 or PSY 333, and PSY 585.

PSY 688 Practicum in Industrial and Organizational Psychology (3)
Prerequisites: At least 12 units of graduate-level coursework within the MSIO program.

PSY 698 Thesis (6)
Prerequisites: Advancement to candidacy, consent of graduate advisor. MSIO students.

Take two courses chosen from the following:

PSY 511, PSY 512, PSY 523 or an approved substitute

Take one course from the following:

PSY 501, PSY 518, PSY 527, PSY 533, PSY 544, PSY 553, PSY 575, PSY 634, PSY 637, PSY 651, PSY 656; HRM 445

2. Students with credit in PSY 411, PSY 412, or PSY 423 as undergraduates may petition the MSIO Program Committee to substitute a maximum of 3 units from related areas toward the 36-unit program.

Student Learning Outcomes

An MSIO student will demonstrate competency:

1. as an informed consumer of the knowledge of the history and systems of psychology in general, and the history and systems of I-O psychology in particular.
2. as an informed consumer of the knowledge of core I-O content areas and a practitioner applying this
Courses (PSY)

LOWER DIVISION

100. General Psychology (3)
Prerequisite: Students who score 147 or above on the English Placement Test or "C" or better in one of the following AFRS 100S, ASAM 100S, CHLS 104S, ENGL 100S or ALI 150 or equivalent.
Introduction to the scientific study of human behavior. Provides a basis for further study and for application to everyday life. Topics include biological foundations of behavior, motivation, emotion, learning, memory, thinking, personality, development, social behavior, abnormal behavior, methods of therapy.

110. Introductory Statistics (4)
Prerequisites: Eligible to take a General Education Mathematics course.
Introduction to descriptive and inferential statistics and applications in psychological research; performance of statistical exercises by interactive computer. Emphasis upon knowledge of which statistical tests to use and how to interpret their results.

Not open for credit to students with credit in PSY 210.

130. Critical Thinking (3)
Prerequisite: GE A1 requirement.
The nature of critical thinking; models and strategies; common fallacies of reasoning; self-regulation in the thinking process; application of critical thinking to specific areas.

150. Personality and Social Behavior (3)
Prerequisite/Corequisite: One GE Foundation course.
Psychological principles pertinent to the understanding of personality and interpersonal dynamics. Discussion of research and theories of social motivation, conflict and anxiety, adjustment mechanisms and personality change.

220. Research Methods (4)
Prerequisites: PSY 100; PSY 110 or SOC 170 or HDEV 190 with a grade of 'C' or better, and Completion of GE A1 (Written Communication) requirement.
Introduction to basic research methods in Psychology. Principles of experimentation, naturalistic observation, correlational studies. Not open for credit to students with credit in PSY 200. (Lecture 3 hours, laboratory and field 3 hours)

241. Psychobiology (3)
Prerequisites: PSY 100, GE A1 requirement.
Introduction to the study of behavior from a biological point of view. Biological systems and processes underlying behavior, with emphasis on brain mechanisms, presented in the context of fundamental concepts and issues in psychology. Not open for credit to students with credit in PSY 141.

278. Prevention and Treatment of Domestic Violence (3)
Prerequisite: PSY 100.
In-depth look at domestic violence. Students learn about types of violence, prevalence rates and the etiology of domestic violence. Students also learn about legal, medical and therapeutic responses to domestic violence, as well as prevention and public policy interventions.

UPPER DIVISION

300. Mind Control or Freedom (3)
Prerequisites: PSY 100, GE Foundation requirement, one or more explorations courses and upper division standing.
Theories of persuasion and how people control others using informational, manipulative and coercive approaches; sources of power in society; and the psychological and ethical implications of freedom and responsibility in coping with control attempts by friends, government, advertisers, cults.

301. Introduction to Psychology as a Discipline and Profession (3)
Prerequisite: PSY 100.
Covers scope and value of psychology major including preparation for graduate work, careers available at varying degree levels, ethical considerations, key historical concepts, and essential skills like library search techniques, using APA format, and study skills. (6 hrs activity)

310. Intermediate Statistics (4)
Prerequisites: PSY 100, PSY 110.
Basic theoretical concepts of statistics and use of these concepts in selection and development of model testing, hypothesis testing and parameter estimation procedures. Both single measure (univariate) and correlation (bivariate) concepts are included. (Lecture 3 hours, laboratory 2 hours)

314. Psychological Assessment (3)
Prerequisites: PSY 100, PSY 110, PSY 220.
Principles of assessment applied to the measurement of individual behavior and to programs intended to affect behavior. Includes interviews, tests and other methods.

315. Principles of Psychological Testing (3)
Prerequisites: PSY 100, PSY 110, PSY 220.
Principles and practices of group and individual testing in the fields of intelligence, aptitude, achievement, personality and interest. Emphasis on the evaluation of tests as measuring devices, their applicability and limitations.

327. Introduction to Human Factors (3)
Prerequisites: GE Foundation requirement, one Explorations course, and upper division standing
Introduction to the field of human factors, a discipline concerned with designing products and systems for human use.

329A. Advanced Research Methods in Mental Health (3)
Prerequisites: PSY 100, PSY 110, PSY 220, Admission to COR program and consent of instructor.
Introduction to fundamental and advanced methods relevant to mental health research as well as current directions and cutting edge research in the field of mental health. Development and execution of an independent research project on topics related to mental health.

329B. Advanced Research Methods in Mental Health (3)
Prerequisites: PSY 329A, Admission to COR program and consent of instructor.
Introduction to fundamental and advanced methods relevant to mental health research as well as current directions and cutting edge research in the field of mental health. Development and execution of an independent research project on related topics.
331. Sensation and Perception (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Introduction to the scientific study of sensory processes and perceptual principles from a psychophysical and physiological perspective, and the methods used to investigate them. Topics may include vision, audition, psychophysics, and object and space perception.

332. Human Cognition (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Study of higher-order processes basic to the acquisition of knowledge. Includes thinking, problem solving, creativity, information processing, decision making, judgment, concepts and imagination.

333. Psychology of Learning (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Learning is a relatively permanent change in behavior resulting from experience. Emphasizes interaction of biological and environmental variables in the processes of instinct, habituation, sensitization, Pavlovian conditioning, instrumental learning, and cognition; examination of methods, theory and applications.

336. Psychology of Emotion (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Discussion of research and theories of emotions. Includes the evolution of emotions, neurophysiological mechanisms of emotion, development of emotions, expressions of emotions, and emotions in social relationships, with an emphasis on the emotions of anger, grief, happiness, jealousy, and love.

337. Psychology of Happiness (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Examines research in human happiness. Topics include: Assessing happiness, the adaptive function of positive emotions, the relation between wealth and happiness, personality characteristics of happy individuals, international differences in happiness, and strategies for enhancing the happiness of individuals.

339. Psychology of Sport Behavior and Athletic Performance (3)
Prerequisites: GE Foundation requirement, PSY 100 and upper division standing.
Psychological dimensions of attitudes, behaviors, and performance in sport and exercise environments.
Same course as KIN 339. Not open for credit to students with credit in KIN 339.

340. Physiology of Behavior (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
An in-depth examination of central nervous system (CNS) components that create our behavioral capabilities. Topics include major structural and functional features of the neuron and of selected systems representative of the sensory, integrative, and motor capabilities of the CNS.

341. Neuropsychology (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Localization of brain regions responsible for human capabilities as studied in patients with brain damage, normal people, and nonhumans. How brain damage is assessed and treated. Relation of findings to function of normal brains.

342. Psychopharmacology (3)
Prerequisites: PSY 100, PSY 220, PSY 241.
Introduction to the effects of major classes of psychoactive drugs on the central nervous system. Topics include anatomical and functional characteristics of neurotransmitter systems; pharmacology of drug administration; and physiological and psychological actions of selected classes of psychoactive drugs.

346. Evolutionary Psychology (3)
Prerequisites: GE Foundation requirement and one or more Explorations courses, PSY 100 and upper division standing.
Human social behavior as seen in context of evolutionary biology. Topics include the importance of kinship in human societies, altruism and reciprocity, human sexuality, parent-offspring relations, ethical and legal systems and religion.

350. Psychology and Contemporary Social Issues (3)
Prerequisites: PSY 100, GE Foundation requirement, one or more explorations courses and upper division standing.
Application of social psychological principles toward understanding major contemporary social issues. Each issue covered is presented in its historical context, and the economic, political, social and cultural aspects are examined.

351. Social Psychology (3)
Prerequisite: PSY 100.
Study of individuals and groups as they are affected by social interactions. Topics may include social cognition, attitudes and persuasion, social influence, interpersonal perception and attraction, aggression, altruism, and group dynamics.

354. Psychology of Women (3)
Prerequisite: PSY 100.
Examination of women's roles throughout the lifespan including gender differences, body image, pregnancy, sexuality, communication, relationships, motherhood, work, physical and mental health. Attitudes toward women, including violence against women, may be explored. This course is for both men and women.

356. Personality (3)
Prerequisite: PSY 100.
Survey of classical theories and methods in Personality psychology, with a sampling of current research. Examines how and why people differ in personality, and the ways these differences are reflected in thoughts, feelings, motivations, and behaviors.

359. Self-Observation and Self-Development (3)
Prerequisite: PSY 100.
Examination of personal traits and behavior patterns as reflected by objective measures, group interactional procedures and video feedback. Development of self through systematic self-observation.

361. Psychology of Child and Adolescent Development (3)
Prerequisite: PSY 100.
Developmental change processes from prenatal development through adolescence. Emphasis on ethnic, gender, and social class differences in development combined with emphasis on the universal features of human development. Topic coverage includes physical-motor, social, physiological, and cognitive aspects of development.
362. Autism Spectrum Disorders (3)
Prerequisite: PSY 100.
Introduction to autism spectrum disorders (ASDs), including consideration of behavioral and cognitive issues, comorbid disorders, prevalence, possible etiology and psychological impacts on families. Examination of treatment approaches such as behavioral, speech, physical, occupational, educational, dietary and biomedical therapies.

363. Developmental Psychopathology (3)
Prerequisite: PSY 100.
Research on psychiatric disorders of children and adolescents from a developmental perspective. The symptoms, causes, course and prevention of the most important childhood disorders are discussed, including conduct disorder, attention deficit hyperactivity, depression, anxiety disorder, autism and mental retardation.

365. Psychology of Adult Development and Aging (3)
Prerequisite: PSY 100.
Methodological and theoretical problems and issues in the study of developmental change processes from young adulthood through old age. Topical coverage includes physical-motor, social, physiological and intellectual aspects of behavioral functioning.

370. Abnormal Psychology (3)
Prerequisite: PSY 100.
Overview of abnormal behavior as a portion of continuum of human behavior. Covers field’s historical approaches, range of psychological disorders, as well as causes, consequences, and treatment of these disorders.

373. Introduction to Clinical Psychology (3)
Prerequisites: PSY 100, PSY 370.
Survey of field of clinical psychology including an introduction to its history, diagnostic procedures, therapeutic process, clinical training, research approaches, and ethical issues.

375. Community Psychology (3)
Prerequisites: GE Foundation requirement, PSY 100, and upper division standing.
Examination, prevention, and interventions for contemporary social problems. First-hand experience with community assessment, intervention, evaluation, and social policy through community service learning. Emphasis on contextual analyses, community strengths, and culturally-appropriate solutions.

377. Serial Killers and Psychopaths: The Psychology of the Criminal Mind (3)
Prerequisites: Criminal Justice majors: A grade of "C" or better in CRJU 304. Psychology majors: PSY 220, PSY 370. All other majors: Consent of instructor.
Integrative examination of the intersection of criminal behavior and severe psychopathology using psychodynamic, behavioral, psychosocial, and neurobiological models. Particular attention is paid to understanding homicide and sex offenses committee by those diagnosed with psychopathy, schizophrenia, and antisocial personality disorder.
Same course as CRJU 408. Not open for credit to students with credit in CRJU 408.

378. Health Psychology (3)
Prerequisite: PSY 100.
Research and theory regarding attitudes, beliefs, and behaviors related to health and illness. Individual difference variables will be examined. Analysis of applications of psychology to prevention, counseling, and treatment of major health problems.

379. Psychology of Stress (3)
Prerequisite: PSY 100.
Introduction to the scientific study of stress and its relationship to health. Course content will focus on understanding the nature of psychological stress, its physiological correlates, and specific strategies used to help in understanding and managing our own experience of stress.

381. Introduction to Industrial-Organizational Psychology (3)
Prerequisite: PSY 100.
Introduction to theories, methods, findings, and applications of industrial-organizational (I-O) psychology. Topics covered include job analysis, employee recruitment and selection, performance appraisal, employee training and development, work stress, teams, satisfaction, motivation, and leadership.

382. Introduction to Cognitive Science (3)
Prerequisites: GE Foundation requirement; at least one Exploration course; upper-division standing; at least 6 units in two areas chosen from computer Science, Linguistics, Philosophy, and Psychology.
Introduction to cognitive science including historical development, foundational philosophical presuppositions, core topics, underlying theoretical framework, explanatory goals, different methodologies and theoretical contributions of its constitutive disciplines.
Same course as PHIL 482. Not open for credit to students with credit in PHIL 482.

383. Women, Family, and Work Issues (3)
Prerequisite: PSY 100.
Opportunities and challenges women in U.S. face with family and work issues explored. Specifically, cultural influences, complex family compositions, work demands, and the collective influence of these factors on women’s life choices examined.

384. Workplace Diversity: Barriers and Strategies (3)
Prerequisite: PSY 100.
Current U.S. workforce is diverse along gender, multiracial, and multicultural factors, such as men, women, European Americans, African Americans, Latinos, Asian Americans and others. Understanding psychological barriers and developing strategies at the individual, group, and organizational levels to create a positive multicultural workplace will be explored.

390. Selected Topics in Psychology (3)
Prerequisite: Consent of instructor.
Topics of current interest in psychology selected for intensive development.
May be repeated to a maximum of 9 units with different topics; no more than 6 units may be used for the major. Topics announced in the Schedule of Classes.

401/.501. History of Psychology (3)
Prerequisites: Psychology major, PSY 301; 6 upper division units in psychology.
Historical background and development of psychology as a science. Contributions of major individuals and systems.
Letter grade only (A-F)

405. Field Work in Psychology (3)
Prerequisites: Psychology major (3.0 GPA), 12 units upper division in PSY, PSY 301, consent of instructor, letter of recommendation. Supervised internship in a Psychology-related position in the surrounding community. Placements include schools, hospitals, clinics, and community mental health agencies.
Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters. Course fee may be required.
406A,B. Applications of Psychology (3)
Prerequisite: Psychology major, PSY 301; consent of instructor.
Theoretical and laboratory training in the topic areas are followed by applied work with clients, schools, businesses, etc., as appropriate. Students are supervised by the course instructor.
Students apply for 406A-B during the semester before the courses are taken. Letter grade only (A-F). Course fee may be required.

407./507. Introduction to Family Therapy (3)
Prerequisites: Psychology major, PSY 301; PSY 373 or PSY 475.
Survey of the field of family therapy including origins of differences in family structure, historical development of family therapy theory and practice.
Letter grade only (A-F).

411./511. Statistical Design and Analysis of Experiments (3)
Prerequisites: Psychology major, PSY 301; PSY 310.
Focuses on logic, application, and interpretation of analysis of variance (ANOVA) models in addition to other statistical procedures. Various issues of research design and experimentation are also covered.
Letter grade only (A-F).

412./512. Multivariate Statistical Analysis (3)
Prerequisites: Psychology major, PSY 301; PSY 310.
Covers logic, application, and limitations of multivariate (multiple independent and dependent variables) statistics. Topics may include multivariate analysis of variance, single and multiple correlation/regression, logistic regression, factor analysis, and path analysis.
Letter grade only (A-F).

418./518. Computer Applications in Psychology (3)
Prerequisites: Psychology major, PSY 301; PSY 310.
Foundations of computer technology and its application to psychology. Emphasis on real-time control by digital computers in psychological research and applications.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

423./523. Qualitative Methods and Analysis. (3)
Prerequisites: Psychology Major, PSY 301.
Overview of qualitative research methods and analysis. Students learn to conduct observations, focus groups and qualitative interviews. Inductive analysis techniques such as content analysis and narrative analysis. Application of these skills in a qualitative evaluation of a real-world program.
Letter grade only (A-F).

427./527. Human Factors (3)
Prerequisites: Psychology major, PSY 301; PSY 310 and two of the following: PSY 331, PSY 332 or PSY 333.
Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of human factors psychologists. These skills will include systems and analysis, cognitive task analysis, rapid prototyping and usability testing.
(Lecture 2 hrs, laboratory 3 hours) Letter grade only (A-F).

433./533. Research in Cognition and Learning (3)
Prerequisites: Psychology major, PSY301; PSY 310 and one of the following: PSY 331, PSY 332 or PSY 333.
Research methods in cognition, learning, and perception. Laboratory includes experiments on selected topics.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

434. Human Memory: Exploring Brain, Mind and The Past (3)
Prerequisites: Psychology major; PSY 301; and one of the following: PSY 332, PSY 333, PSY 337, PSY 340 or PSY 341.
Memory is essential for successfully navigating our world. Examines classic and modern research and real-world applications in human memory. Students completing this course will practice designing, critiquing and conducting psychological research.
Letter grade only (A-F). (Seminar)

435. Animal Cognition (3)
Prerequisites: Psychology major, PSY 301 and PSY 332 or PSY 333.
Examines the cognitive lives of animals. Discussion includes: instincts, basic learning abilities, insightful problem-solving, categorization and analogical reasoning, short-term and long-term memory, time perception, counting and numerical abilities, perception and navigation, social learning, and communication.
Letter grade only (A-F). Not open for credit to students with credit in PSY 343.

436./536. Psychology of Mood (3)
Prerequisites: Psychology major, PSY 301; PSY 310.
Analyses of normal mood states, including survey of existing literature. Topics may include the relationship of mood to important antecedents and consequences such as sleep-wake cycles, exercise, nutrition, physical health, stress, and cognition.
Letter grade only (A-F).

441./541. Research in Physiological Psychology (3)
Prerequisites: Psychology major, PSY 301; PSY 310 and one of the following: PSY 340, PSY 341 or PSY 342.
Research methods in psychobiology. Includes fundamentals of neuroanatomy, surgical procedures for stimulation, lesioning and recording, and pharmacological procedures used in neuropsychological research.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)

444./544. Cognitive Neuroscience (3)
Prerequisites: Psychology major, PSY 301; PSY 310, PSY 332 and one of the following: PSY 340, PSY 341 or PSY 342.
Explores brain systems responsible for cognitive processes in normal humans, integrating theory from texts and current research from original sources.
Letter grade only (A-F).

451./551. Research in Social Psychology (3)
Prerequisites: Psychology major, PSY 301, PSY 310, PSY 351.
Research methods and problems in social psychology.
(Lecture 2 hrs, laboratory 3 hrs.) Letter grade only (A-F).

453./553. Principles of Group Dynamics (3)
Prerequisites: Psychology major, PSY 301; and PSY 351.
Behavior in groups with attention to such factors as leadership, followership, interaction and influence including organization, management, morale, and efficiency. Problems, techniques and methods of investigation.
Letter grade only (A-F).

456./556. Research in Personality (3)
Prerequisites: Psychology major, PSY 301, PSY 310, PSY 356.
Examination of common research methods, especially as they apply to particular theoretical personality paradigms.
Letter grade only (A-F). (Lecture 2 hours, laboratory 3 hours)
457. Psychology of Sexuality (3)
Prerequisites: Psychology major, PSY 301; and one of the following: PSY 351, PSY 356 or PSY 370.
Survey of topics in human sexuality with emphasis on developmental psychology of sexuality, attitudes and feelings related to sexuality, sexual variations and deviations, and sexual dysfunction and sex therapy.
Letter grade only (A-F).

463. Social and Personality Development (3)
Prerequisites: Psychology major, PSY 301; PSY 361.
Development of social behavior and personality in children and adults. Coverage will include theoretical approaches and processes, as well as content areas including development of emotions, personality systems, aggression, morality, prosocial behavior, peer relations, and sex differences.
Letter grade only (A-F).

475. Clinical Interviewing (3)
Prerequisites: Psychology major, PSY 301; PSY 373.
Study and development of clinical techniques of observation and interview. Coverage includes detailed exposure to Client-Centered and Gestalt counseling methods. Emphasis on understanding theory and acquisition of basic skills.
Letter grade only (A-F).

477. Psychology of Addiction (3)
Prerequisites: Psychology major, PSY 301; 6 upper division units in Psychology.
Investigation of theory and research on psychological causes and effects of addiction, including analyses of individual differences on major demographic variables of gender, age, and ethnicity. Considerations of major approaches and methods to recovery from addictive behavior.
Letter grade only (A-F).

490. Selected Topics in Psychology (3)
Prerequisites: Psychology major, PSY 301; one 300-level course in the subject matter of the course.
Advanced study of selected topics in one basic area of psychology, e.g., cognition and learning, emotion and motivation, physiological, social, personality or developmental.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.
A. Applied Social Psychology

490H. Selected Topics - Honors (3)
Prerequisites: Psychology major, PSY 301; consent of the Psychology Honors Program Advisory Committee.
Advanced study of selected topics in psychology.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

495. Psychology and the Law (3)
Prerequisites: Psychology major, PSY 301; PSY 370.
Examines relationship between fields of psychology and law, including laws pertaining to psychologists and rights and ethical responsibilities of mental health providers. Topics include forensic psychology, trial consulting, and issues relating to the legal system.
Letter grade only (A-F).

496H. Research Preparation - Honors (3)
Prerequisites: Psychology major, PSY 301; consent of the Psychology Honors Program Advisory Committee.
Development of a senior honors thesis proposal.
Letter grade only (A-F).

497H. Senior Thesis - Honors Presentation (1)
Prerequisites: Psychology major, PSY 301; Permission of the Psychology Honors Program Committee, PSY 490H, PSY 496H and PSY 498H
This course is designed to train psychology honors students in presentations of their completed thesis work. Students will defend their honors thesis to the Psychology Honors Program Committee and participate in approved research competition venues.
Credit/No Credit grading only.

498H. Senior Thesis - Honors (3)
Prerequisites: Psychology major, PSY 301; PSY 490H, 496H and consent of the supervising faculty member.
Final completion of an original research project with the product being both an oral and written presentation of the research.
Letter grade only (A-F).

499. Independent Study (1-3)
Prerequisites: Psychology major, PSY 301; and consent of department.
Student will conduct independent laboratory or library research and write a report of the research.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

GRADUATE LEVEL

501. History of Psychology (3)
Prerequisite: Six upper division units in psychology.
Historical background and development of psychology as a science. Contributions of major individuals and systems.
Letter grade only (A-F).

507. Introduction to Family Therapy (3)
Prerequisites: PSY 220, PSY 373, PSY 475 or consent of instructor.
Survey of the field of family therapy including origins of differences in family structure, historical development of family therapy theory and practice.
(Lecture/Discussion) Letter grade only (A-F).

511. Statistical Design and Analysis of Experiments (3)
Prerequisite: PSY 310 or consent of instructor.
Focuses on the logic, application, and interpretation of analysis of variance (ANOVA) models in addition to other statistical procedures. Various issues of research design and experimentation are also covered.
(Lecture 3 hours) Letter grade only (A-F).

512. Multivariate Statistical Analysis (3)
Prerequisite: PSY 310 or consent of instructor.
Covers logic, application, and limitations of multivariate (multiple independent and dependent variables) statistics. Topics may include multivariate analysis of variance, single and multiple correlation/regression, logistic regression, factor analysis, and path analysis.
(Lecture 3 hours) Letter grade only (A-F)

515. Test Construction Theory and Practice (3)
Prerequisites: PSY 310 and either PSY 314 or PSY 315.
Consideration of problems in the construction of tests for personnel selection, educational screening, personality assessment, aptitude estimating, and measurement of academic achievement, practice in the development of tests.
(Lecture 2 hrs, laboratory 2 hrs) Letter grade only (A-F).
518./418. Computer Applications in Psychology (3)
Prerequisites: PSY 310 or equivalent or consent of instructor.
Foundations of computer technology and its application to psychology. Emphasis on real-time control by digital computers in psychological research and applications.
(Lecture 2 hrs, laboratory 3 hrs) Letter grade only (A-F).

523./423. Qualitative Methods and Analysis (3)
Prerequisite: Graduate standing.
Overview of qualitative research methods and analysis. Students learn to conduct observations, focus groups and qualitative interviews. Inductive analysis techniques such as content analysis and narrative analysis. Application of these skills in a qualitative evaluation of a real-world program.
Letter grade only (A-F).

527./427. Human Factors (3)
Prerequisites: PSY 310 and two of the following: PSY 331, PSY 332 or PSY 333.
Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of human factors psychologists. These skills will include systems analysis, cognitive task analysis, rapid prototyping and usability testing.
(Lecture 2 hrs, laboratory 3 hours) Letter grade only (A-F).

533./433. Research in Cognition and Learning (3)
Prerequisites: PSY 220, PSY 310, and PSY 331 or PSY 332 or PSY 333.
Research methods in cognition, learning, and perception. Laboratory includes experiments on selected topics.
(Lecture 2 hrs, lab 3 hrs) Letter grade only (A-F).

536./436. Psychology of Mood (3)
Prerequisites: PSY 100, PSY 220, PSY 310, or consent of instructor.
Analyses of normal mood states, including survey of existing literature. Topics may include the relationship of mood to important antecedents and consequences such as sleep-wake cycles, exercise, nutrition, physical health, stress, and cognition.

541./441. Research in Physiological Psychology (3)
Prerequisites: PSY 220, PSY 310, and PSY 341.
Research methods in psychobiology. Includes fundamentals of neuroanatomy, surgical procedures for stimulation, lesioning and recording, pharmacological procedures used in neuropsychological research.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

544./444. Cognitive Neuroscience (3)
Prerequisites: PSY 332 and one of the following: PSY 340, PSY 341, or PSY 342.
Explores brain systems responsible for cognitive processes in normal humans, integrating theory from texts and current research from original sources.
Letter grade only (A-F).

551./451. Research in Social Psychology (3)
Prerequisites: PSY 220, PSY 310, PSY 351, or consent of instructor.
Research methods and problems in social psychology.
(Lecture 2 hrs, laboratory 3 hrs.) Letter grade only (A-F).

553./453. Principles of Group Dynamics (3)
Prerequisites: PSY 110, PSY 220, PSY 351, or consent of instructor.
Behavior in groups with attention to such factors as leadership, followership, interaction and influence including organization, management, morale, and efficiency. Problems, techniques and methods of investigation.
(Lecture/Discussion) Letter grade only (A-F).

556./456. Research in Personality (3)
Prerequisites: PSY 100, PSY 220, PSY 310, PSY 356, or consent of instructor.
Examination of common research methods, especially as they apply to particular theoretical personality paradigms.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

575./475. Clinical Interviewing (3)
Prerequisites: PSY 100, PSY 220, PSY 373.
Study and development of clinical techniques of observation and the interview. Coverage will include a detailed exposure to Client-Centered and Gestalt counseling methods. Emphasis will be on understanding theory and acquisition of basic skills.
Letter grade only (A-F).

581. Organizational Psychology (3)
Prerequisites: PSY 351 or PSY 381 or PSY 453/553.
Analysis of organizational behavior and practices from a systems point of view. Consideration of employee motivation, power, leadership, communication, decision-making, and organizational change. Research methods for studying organizations.
Letter grade only (A-F).

582. Research in Industrial and Organizational Psychology (3)
Prerequisites: PSY 220 and PSY 310.
Research methods and problems in industrial psychology. Includes direct observational, psychophysical, regression, survey, experimental, and quasi-experimental methods.
(Lecture 2 hours, laboratory 3 hours) Letter grade only (A-F).

585. Proseminar in Personnel Psychology (3)
Prerequisites: PSY 314 or PSY 315.
Advanced consideration of problems and procedures in personnel psychology. Includes both differentiation and synthesis of major areas within this field.
Not open for credit to students with credit in PSY 586. Letter grade only (A-F).

589. Selected Topics in Industrial and Organizational Psychology (1)
Prerequisite: Acceptance in to the Master of Science - Industrial and Organizational Psychology or consent of instructor.
Exploration of selected advanced topics in Industrial/Organizational psychology.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester. Topics announced in the Schedule of Classes. Not open for credit to students with credit in same topic in 590.

A. Large Group Intervention

590. Selected Topics in Psychology (1-3)
Prerequisites: Consent of instructor. Topics of current interest in psychology selected for intensive development.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.
596. Proseminar on Graduate Research (3)
Prerequisites: Admission to MAPR program, consent of instructor; consent of graduate advisor.
Introduces first semester graduate students to their new graduate level environment and culture. Skills expected of all MAPR master's students will be developed including technical writing, researching topics, public speaking and effectively participating in Psychology seminars.
Letter grade only (A-F).

599. Independent Study (1-3)
Prerequisite: Consent of department.
Unclassified graduate student will conduct independent laboratory or library research and write a report of the research. May be repeated for a maximum of 6 units. Letter grade only (A-F).

627. Human Factors’ Methods (3)
Prerequisite: PSY 527 or consent of instructor.
An advanced graduate level course on methods commonly used in the field of human factors. These methods include analytic techniques used during the design of human-machine systems (e.g., task analysis, simulation), techniques used to evaluate functioning systems (usability testing, critical incident surveys) and techniques used to measure human performance (e.g., workload, situation awareness).
Letter grade only (A-F).

631. Seminar in Perception and Physiological Psychology (3)
Prerequisite: PSY 331 or PSY 340 or PSY 341 or PSY 342 or consent of instructor; consent of graduate advisor.
Critical examination of selected topics in perception, information processing and neurophysiological correlates of behavior. Student emphasis on either perception or physiological psychology.
Letter grade only (A-F).

632. Seminar in Learning (3)
Prerequisites: PSY 333 or consent of instructor; consent of graduate advisor.
Advanced consideration of selected topics in learning.
Letter grade only (A-F).

633. Seminar in Perception and Attention (3)
Prerequisites: PSY 331 or PSY 332 or consent of instructor; consent of graduate advisor.
Examination of methods, theories, and experimental evidence in selected topics from the areas of sensation, perception, and attention.
Letter grade only (A-F).

634. Seminar in Cognition (3)
Prerequisites: PSY 332 or PSY 333 or consent of instructor; consent of graduate advisor.
Examination of method, theory and experimental evidence in selected topics from the area of cognition.
Letter grade only (A-F).

635. Seminar on Situation Awareness (3)
Prerequisites: PSY 331 or PSY 332 or consent of instructor or/and consent of graduate advisor.
Examines research on situation awareness. Topics include: Theoretical perspectives on situation awareness, its importance in systems design and its application in areas such as driving and aviation. Also examines measurement tools designed to assess situation awareness.
Letter grade only (A-F).

637. Seminar in Emotion and Motivation (3)
Prerequisites: PSY 336 or consent of instructor; consent of graduate advisor.
Advanced consideration of selected topics in animal and human motivation and emotion.
Letter grade only (A-F).

651. Seminar in Social Psychology (3)
Prerequisites: PSY 351 or consent of instructor; consent of graduate advisor.
Critical examination of interpersonal relations, social influence, group membership and influence, and intergroup relations.
Letter grade only (A-F).

656. Seminar in Personality (3)
Prerequisites: PSY 356 or consent of instructor; consent of graduate advisor.
Theories of personality structure, dynamics, and development. Critical examination of research deriving from different theoretical approaches.
Letter grade only (A-F).

661. Seminar in Developmental Psychology (3)
Prerequisites: PSY 361 or consent of instructor; consent of graduate advisor.
Consideration of theoretical and methodological issues in life span developmental psychology. Critical examination of research on selected topics, including development of physiological function, intelligence, language, learning processes, sensory processes, perception, personality and social behavior.
Letter grade only (A-F).

678. Seminar in Health and Behavior and Intervention (3)
Prerequisites: PSY 310 or consent of instructor; consent of graduate advisor.
Overview of health psychology and health promotion field. Students learn background of psychology's role in health professions, health behavior theory and health intervention design and evaluation. analysis of individual, contextual, structural and cultural factors impacting health and health intervention.
Letter grade only (A-F).

683. Issues Organizational Development (3)
Prerequisites: PSY 581.
Examination of theory, research, techniques, and practices in field of organizational development, professional practice of managing change in organizations. Techniques, such as team building, systems analysis, process consultation, large-group interventions and survey feedback will be examined.
Letter grade only (A-F).

686. Issues in Training (3)
Prerequisites: PSY 332 or PSY 333, and PSY 585.
Discusses theoretical and applied issues with the development of employee training programs. Topics include needs assessment, adult learning theory, training methods, training evaluation, and learning organizations. Experiential assignments reinforce course concepts.
Letter grade only (A-F).

688. Practicum in Industrial and Organizational Psychology (3)
Prerequisites: At least 12 units of graduate-level coursework within the MSIO program.
Practicing industrial psychology or human factors in various industrial settings. Individual research and consultation with industrial or governmental organizations.
Letter grade only (A-F). Course fee may be required.
696. Research Methods (3)
Prerequisites: PSY 411/511 or PSY 412/512, PSY 596, and consent of graduate advisor.
Preparation and completion of thesis proposal for preliminary oral examination. Power calculations, research methods, and statistical concepts and procedures. Ethics, human subjects protection and responsible conduct of research. Includes the required comprehensive examination for MA Research students.
Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisites: Consent of graduate advisor and department.
Theoretical and experimental problems in psychology requiring intensive analysis.
Letter grade only (A-F).

698. Thesis (1-6)
Prerequisites: Advancement to candidacy, consent of graduate advisor. MSIO students.
Planning, preparation, and completion of a thesis in psychology.
Must be repeated for a total of 6 units of credit. Letter grade only (A-F).

699. Directed Research and Portfolio (1-3)
Prerequisites: Advancement to Candidacy, consent of graduate advisor.
Capstone for the MSIO Applied/Portfolio track. Intensive study of theoretical and/or experimental problems in psychology under the guidance of a faculty member. Portfolio development.
Must be repeated for a total of 3 units of credit. Letter grade only (A-F).
GRADUATE CENTER FOR PUBLIC POLICY AND ADMINISTRATION
College of Health and Human Services

Director: Edward J. Martin
Center Office: Social Science Public Affairs Bldg. (SS/PA), Room 228
TelephoneNumber: (562) 985-4178
Faculty: Walter F. Baber, Edward Martin, William Moore, John W. Ostrowski, David C. Powell, Michelle A. Saint-Germain

Department Coordinator: Kathy Allan
Distance Learning: Sheryl Caito
TelephoneNumber: (562) 985-4179

Career Possibilities
Management Analyst • City Manager • Financial Analyst • Project Manager • Presidential Management Intern (PMI) • Non-Profit Management (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Center offers the Master of Public Administration degree; options in the degree program include Public Works Administration and Urban Affairs; and graduate certificate programs in Urban Executive Management, Public Management Analyst, Employer-Employee Relations and Personnel Management, Public Sector Financial Management, and Transportation Policy and Planning.

Admission applications are encouraged from persons with successful government service who wish to pursue the degree, part-time or full-time. A detailed summary of requirements, current course offerings and procedures are contained in student handbooks available from the Graduate Center for Public Policy and Administration and on its website at http://www.csulb.edu/ppa.

The Center is accredited by the Network of Schools of Public Policy, Affairs, and Administration (NASPAA), Commission on Peer Review and Accreditation.

Admission Requirements
1. Minimum 3.0 Undergraduate GPA
2. Demonstrated competence in professional writing. A listing of ways you can demonstrate writing competence is available in the Center office (SSPA 228) or on the Center website: http://www.csulb.edu/ppa/
3. Quality of professional experience as evaluated by Center faculty. This evaluation will be based on the applicant’s current job description, resume, any other materials submitted by the applicant, and the length of professional service.
4. Other evidence of applicant’s potential to undertake and successfully complete the MPA course of study: faculty may consider other evidence submitted by the applicant; for example, scores on optional standardized examinations such as the GRE, GMAT, LSAT, or other recognized standardized examinations.

Following admission to the University and acceptance to the Center, each student should meet with a faculty advisor. The faculty advisor will provide advice to the student on program course requirements and elective opportunities, and counsel the student in the chosen elective area.

A student whose overall grade point average is less than 3.0, but who presents acceptable evidence of professional potential shown through recent academic performance and experiential background, may be admitted by special action of the Center.

Advancement to Candidacy
1. Fulfillment of the Graduate Writing Assessment Requirement (GWAR)
2. Minimum GPA of 3.0 in all graduate work completed at this University, or transferred from other sources, to meet degree or program requirements.
3. Successful completion (grade of "B" or better) of six units in the MPA program.
4. Completion of the orientation requirement.

Transfer of Credit
Students who have completed a graduate certificate program in the Public Management Analyst, Employer-Employee Relations and Personnel Management, Public Sector Financial Management, or Transportation Policy and Planning, may transfer up to 15 units of credit earned in the certificate program to be applied to the Center’s Master of Public Administration degree program. The student must apply to the Center for admission as a degree candidate.

Students who have completed the academic requirements for the Master of Public Administration degree, prior to applying for admission to a graduate certificate program in the Center, may apply up to 6 units of credit earned in the MPA program for the required or elective courses in a certificate program.

Master of Public Administration
This is a 39-unit program. A common grounding in the core areas of public policy and administration is required; beyond this, considerable freedom of choice enables students to select subjects which fit their particular backgrounds or career objectives.

Admission Requirements
1. Minimum 3.0 Undergraduate GPA
2. Demonstrated competence in professional writing. A listing of ways you can demonstrate writing competence is available in the Center office (SSPA 228) or on the Center website: www.csulb.edu/ppa/
3. Quality of professional experience as evaluated by Center faculty. This evaluation will be based on the applicant’s current job description, resume, any other materials submitted by the applicant, and the length of professional service.
4. Other evidence of applicant’s potential to undertake and successfully complete the MPA course of study: faculty may consider other evidence submitted by the applicant; for example, scores on optional standardized examinations such as the GRE, GMAT, LSAT, or other recognized standardized examinations.

Following admission to the University and acceptance to the Center, each student should meet with a faculty advisor. A student whose overall grade point average is less than 3.0, but who presents acceptable evidence of professional potential shown through recent academic performance and experiential background, may be admitted by special action of the Center.

Orientation Requirement

All students must attend a mandatory Center orientation within the first two semesters of acceptance into the MPA Program.

Requirements

1. A minimum of 39 course units in graduate course work, with a minimum of 28 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of the following:
   - PPA 500 Foundations of Public Policy and Administration (3)  
     Prerequisites: None.
   - PPA 555 Government Budgeting and Finance (3)  
     Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
   - PPA 577 Public Sector Human Resources Management (3)  
     Prerequisites: None.
   - PPA 660 Seminar in Organization Theory and Behavior (3)  
     Prerequisites: None.
   - PPA 670 Policy Issue Analysis (3)  
     Prerequisites: None.
   - PPA 696 Research Methods in Public Administration (3)  
     Prerequisite: PPA 517 or STAT 108 or equivalent with a grade of "C" or better.
3. Completion of an approved internship program (PPA 585) as required course work beyond the 39-unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 12 units of elective course work from:
   - PPA 512, PPA 522, PPA 523, PPA 525, PPA 533, PPA 535, PPA 540, PPA 546, PPA 547, PPA 567, PPA 571, PPA 575, PPA 581, PPA 590; CRJU 530, CRJU 504, CRJU 621; EDAD 541, EDAD 544; EDP 520, EDP 536; GEOG 650, GEOG 666; HIST 673; POSC 640; REC 521, REC 571.
5. Successful completion of the following:
   - PPA 697 Directed Research (3,3)  
     Prerequisites: Advancement to candidacy, completion of required MPA courses, consent of instructor.
   - An approved Student Learning Portfolio.

University Courses Acceptable for the Master of Public Administration

A wide variety of graduate courses in other departments also are acceptable. Graduate course descriptions are found in the department listings in which they are offered. Consult with Center Faculty for more information.

Option in Urban Affairs

Admission

The general standards for admission are identical to those for the Master of Public Administration degree program. An applicant must demonstrate a background of related undergraduate course work of twelve units, or significant management and/or staff experience in public administration.

Requirements

1. A minimum of 39 course units in graduate course work, with a minimum of 28 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of the following:
   - PPA 500 Foundations of Public Policy and Administration (3)  
     Prerequisites: None.
   - PPA 555 Government Budgeting and Finance (3)  
     Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
   - PPA 577 Public Sector Human Resources Management (3)  
     Prerequisites: None.
   - PPA 610 Seminar in Urban Affairs (3)  
     Prerequisites: None.
   - PPA 660 Seminar in Organization Theory & Behavior (3)  
     Prerequisites: None.
   - PPA 670 Policy Issue Analysis (3)  
     Prerequisites: None.
   - PPA 696 Research Methods in Public Administration (3)  
     Prerequisite: PPA 517 or STAT 108 or equivalent with a grade of "C" or better.
3. Completion of an approved internship program (PPA 585) as required course work beyond the 39-unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 12 units of elective course work from:
   - PPA 512, PPA 522, PPA 523, PPA 525, PPA 533, PPA 535, PPA 540, PPA 546, PPA 547, PPA 567, PPA 571, PPA 575, PPA 581, PPA 590; CRJU 530, CRJU 504, CRJU 621; EDAD 541, EDAD 544; EDP 520, EDP 536; GEOG 650, GEOG 666; HIST 673; POSC 640; REC 521, REC 571.
5. Successful completion of the following:
   - PPA 697 Directed Research (3,3)  
     Prerequisites: Advancement to candidacy, completion of required MPA courses, consent of instructor.
   - An approved Student Learning Portfolio.

Option in Public Works Administration

Admission

The general standards for admission are identical to those for the Master of Public Administration degree program. An applicant must demonstrate a background of related undergraduate course work of twelve units, or significant management and/or staff experience in public administration. For this degree option, the experiential
background would be targeted to the public works and infrastructure sector.

Requirements

1. A minimum of 39 course units in graduate course work, with a minimum of 28 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of the following:
   - PPA 500 Foundations of Public Policy and Administration (3) 
     Prerequisites: None.
   - PPA 554 Public Works Facilities and Urban Policy (3) 
     Prerequisites: None.
   - PPA 555 Government Budgeting and Finance (3) 
     Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
   - PPA 577 Public Sector Human Resources Management (3) 
     Prerequisites: None.
   - PPA 660 Seminar in Organization Theory and Behavior (3) 
     Prerequisites: None.
   - PPA 670 Policy Issue Analysis (3) 
     Prerequisites: None.
   - PPA 696 Research Methods in Public Administration (3) 
     Prerequisites: PPA 517 or STAT 108 or equivalent with a grade of "C" or better.
3. Satisfactory completion of 2 elective courses from:
   - PPA 515 Administrative Report Writing (3) 
   - PPA 517 Analytical Skills Development (3) 
   - PPA 521 Microcomputer Management for Public Administrators (3) 
   - PPA 555 Government Budgeting and Finance (3) 
   - PPA 577 Public Sector Human Resources Management (3) 
4. Completion of 12 units of elective course work selected from the following:
   - PPA 515, PPA 522, PPA 535, PPA 540, PPA 547, PPA 552, PPA 560, PPA 575, PPA 590; CE 520
5. Successful completion of an approved Student Learning Portfolio and 3-6 units of one of the following courses:
   - PPA 697 Directed Research (3) 
     Prerequisites: Advancement to candidacy, completion of required MPA courses, consent of instructor.
   - CE 697 Directed Studies (1-3) 
     Prerequisites: Graduate standing. Corequisites: CE 696 or written consent of directed studies advisor.

Graduate Certificate in Public Management Analysis

This program is designed for men and women who work or desire to work in budgeting, policy formulation, financial management, or program evaluation offices of government agencies. The program prepares candidates with such skills as defining a problem; conducting cost benefit analysis; utilizing basic statistical techniques; conducting behavioral/political analysis; preparing and presenting reports; learning to blend qualitative, behavioral, and political skills necessary for success as an analyst in government.

Students may only pursue the certificate program in combination with a CSULB degree program.

Prerequisite

In addition to general admission requirements, students should be employed in public service or related activities, or have a goal of public service-related activities.

Requirements

1. A minimum of 18 course units in graduate course work, including 4 required and 2 elective courses.
2. Satisfactory completion of the following:
   - PPA 515 Administrative Report Writing (3) 
     Prerequisites: None.
   - PPA 517 Analytical Skills Development (3) 
     Prerequisites: None.
   - PPA 521 Microcomputer Management for Public Administrators (3) 
   - PPA 555 Government Budgeting and Finance (3) 
     Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
3. Satisfactory completion of 2 elective courses from:
   - PPA 522, PPA 523, PPA 540, and PPA 560

Graduate Certificate in Public Sector Employer-Employee Relations and Personnel Management

This program is designed for public sector managers and those desiring to enter public service who need the knowledge, skills, and abilities required to deal effectively with the critical area of public sector employee relations and personnel management. The primary goal is to provide the necessary training for public managers to effectively utilize human resources to their greatest potential in conjunction with the needs of the public organization.

Students may only pursue the certificate program in combination with a CSULB degree program.

Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of the following:
   - PPA 555 Government Budgeting and Finance (3) 
     Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
   - PPA 577 Public Sector Employer-Employee Relations (3) 
     Prerequisites: None.
   - PPA 577 Public Sector Human Resources Management (3) 
     Prerequisites: None.
3. Satisfactory completion of 3 elective courses from:
   - PPA 533, PPA 570, PPA 571 and PPA 581

Graduate Certificate in Public Sector Financial Management

This Certificate Program is designed for public managers and others interested in obtaining an understanding of governmental financial management concepts, functions, techniques, and issues. The program is designed to familiarize students with financial management problems and the techniques available for solving them. An emphasis is placed on how to recognize, evaluate, and utilize financial information in decision-making.

Those most interested in pursuing the Certificate would likely fall into one of three categories. First, current private sector finance professionals who wish to develop an understanding of financial management functions and
practices within the public sector. Second, current public sector financial managers who wish to further develop expertise in public sector financial management. Finally, in-service public sector employees who wish to start a career in government finance and who may use the courses for the Certificate as a guide for their course work towards the Master of Public Administration degree.

Students may only pursue the certificate program in combination with a CSULB degree program.

Prerequisites
Certificate students will need to complete the following prerequisites:
- Calculus for Business or Calculus I with a grade of "C" or better or equivalent.
- Microeconomics with a grade of "C" or better.
- Elementary Financial Accounting with a grade of "C" or better.
- Statistics with a grade of "C" or better.

Note: Graduate level courses may be used to satisfy the above prerequisites but they may not be counted toward completion of the Certificate.

Requirements
Take all of the following (18 units):
- PPA 555 Government Budgeting and Finance (3)
  Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
- PPA 590T Selected Topics in PPA - Public Finance (3)
  Prerequisites: PPA 555.
- PPA 560 Public Financial Management (3)
  Prerequisite: PPA 555.
- PPA 567 Basic Governmental (Fund) Accounting (3)
  Prerequisite: PPA 555.
- ACCT 610 Adv. Cost Accounting, Budgeting and Control (3)
  Prerequisites: ACCT 500 or equivalent with a grade of "C" or better.
- IS 601 Quantitative Methods for Managerial Decision Making (3)
  Prerequisites: MBA standing required.

Note: Appropriate substitutes for the required courses may be allowed subject to permission of the Public Finance Specialization Faculty Advisor. Also, ACCT 610 and IS 601 have substantial prerequisites. Prospective students should refer to the University Catalog for details.

Courses (PPA)

500. Foundations of Public Policy and Administration (3)
Concepts of the discipline; fundamentals of public organization theory, policy formulation and analysis, and administrative and management processes; management in the public interest; and ethics in government.
Letter grade only (A-F).

509. Seminar in Strategic Planning for Public Managers (3)
Prerequisite: Consent of instructor
Introduction to the theories and practice of strategic planning in public organizations. The course is designed to promote an understanding of the theories and approaches to strategic planning and help the student to acquire practical skills involved in strategic planning.
Letter grade only (A-F).

510. Urban Environmental Governance (3)
An examination of the challenges of environmental protection and resource management confronting urban governments. An emphasis is placed on comparative and historical perspectives.
Letter grade only (A-F).

512. Urban Executive Management (3)
Examines problems confronting today’s urban administrator and offers techniques for solving a variety of pressing problems. Subjects include managing in a local government setting issues such as public policy, planning, financial resources, personnel, and labor relations.
Letter grade only (A-F).

514. Municipal Law for Administrators (3)
Examination of major laws and legal issues affecting local government. Basic powers of cities including regulatory (police) powers, corporate (service) powers, taxation and eminent domain.
Letter grade only (A-F).

515. Administrative Report Writing (3)
Preparation of written documents required of public administrators.
Letter grade only (A-F).

517. Analytical Skills Development (3)
Designed to develop or improve the skills needed to perform analytical work in the public sector. Emphasis is on the methods of analysis and evaluation used in public service organizations. Communication of results will also be covered.
Letter grade only (A-F).

518. Microeconomics and Public Policy (3)
Covers key principles of microeconomics such as supply, demand, and market processes. Provides extensive coverage of topics that concern public section decisions, such as public goods, externalities, welfare analysis, and cost-benefit analysis.
Letter grade only (A-F).

521. Microcomputer Management for Public Administrators (3)
Focuses on the design, development, and management of microcomputer systems and applications in public organizations.
Course elements: analysis of critical concepts and issues relating to management of computer systems, and hands-on computer laboratory experience for design, and use of applications.
Letter grade only (A-F).

522. Automating Government Administration (3)
The use of computers to assist government management. Special emphasis on automation of services. Provides an introductory background in computers and their applications to government systems and files for non-computer specialists.
Letter grade only (A-F).

523. Urban Information Systems for Public Management (3)

524. GIS Management and Applications for Public Managers (3)
Introduces students to the management and applications of Geographic Information Systems (GIS) in the Public Sector. Covers the requirements for designing and managing GIS applications for solving public sector problems. Hands-on use of GIS and analysis of GIS cases.
Letter grade only (A-F).
525. Non-Profit Management (3)
Examination of principal characteristics, scope, and functional management areas (i.e., governance, fund development, board development, volunteer and staff management, intersectoral relations; budgeting) in American nonprofit organizations, with particular attention to the important roles of nonprofits in the delivery of health and human services.
Letter grade only (A-F).

533. Race, Inequality and Public Policy (3)
Examines the multiple sources of ethnic, racial, gender, and class inequalities in the United States and how public policies have attempted to address these issues.
Letter grade only (A-F).

535. Intergovernmental Relations (3)
Presents concepts and issues of U.S. intergovernmental relations. Topics include history of the field, intergovernmental finances, state and federal legislative processes, legislative advocacy, interorganizational management, and current issues.
Letter grade only (A-F).

540. Grants Administration and Management (3)
Study of the various types of financial and technical assistance to local public and quasi-public agencies; the strategies for locating and obtaining grant programs support; and the development of effective project systems for externally funded projects.
Letter grade only (A-F).

542. Emergency Planning and Management (3)
Planning and management processes and issues involved in large-scale emergencies; the nature of natural and technological risk and emergency, with attention to public sector roles in contingency planning and response.
Letter grade only (A-F). Same course as EMER 506. Not open for credit to students with credit in EMER 542 or EMER 506.

546. The Urban Crisis and the Public Administrator (3)
Survey of the history of urbanization, the literature of urban power relations and decision-making, and the dynamics of race relations in the urban environment. Major focus on extensive interface with urban agency representatives.
Letter grade only (A-F).

547. Local Government Economic Development Processes (3)
Discussion of the nature, goals and processes of locally based economic development programs. Definition of governmental incentives designed to maximize private investment. Explanation of property-related revenues from public and private perspectives.
Letter grade only (A-F).

554. Public Works Facilities and Urban Policy (3)
Provides a study of public infrastructure essential to urban communities. Focus given to water, wastewater, transportation, solid waste, public facilities, and schools.
Letter grade only (A-F).

555. Government Budgeting and Finance (3)
Prerequisites: PPA 518 or ECON 101 or ECON 300 or equivalent with a grade of "C" or better.
Practices the major concepts and skills associated with budget preparation for all levels of government. Topics include: budget processes and formats, basic principles of government accounting, revenue, and capital budgeting.
Letter grade only (A-F).

560. Public Financial Management (3)
Prerequisite: PPA 555.
Focuses on financial planning, implementation and management control, financial reporting, and financial analysis used in public service organizations.

567. Basic Governmental (Fund) Accounting (3)
Prerequisite: PPA 555.
Provides an introduction to unique characteristics of governmental accounting. Aspects of recording and reporting of financial transactions in public service organizations. Governmental auditing and financial condition analysis.
Letter grade only (A-F).

570. Negotiating Dynamics: Strategies and Skills (3)
Examination of negotiating strategies and skills based on tested use of power and psychological principles in negotiations. Different strategies and skills examined for negotiating under varying levels of cooperation and conflict.
Letter grade only (A-F).

571. Leadership Skills and Strategies in the Public Sector (3)
Leaders in urban governments, community based and nonprofit organizations are challenged to move their bureaucracies toward solutions to complex problems. Examines administrative leadership, current approaches to organizational excellence and their applicability in a variety of administrative settings.
Letter grade only (A-F).

577. Public Sector Human Resources Management (3)
Historical development of civil service/merit system; laws which affect operations of personnel system; analysis of the various components of a personnel system; impact of labor negotiations; role of personnel system as a change agent.
Letter grade only (A-F).

581. Government/Community Relations (3)
Investigation of relationship between governments and community based organizations, with particular attention to strategies for diagnosing problems and opportunities and prescribing courses of action in public policy where governments and nonprofits converge.
Letter grade only (A-F).

585. Public Policy and Administration Internship (3-12)
Prerequisite: Consent of the instructor.
Provides exposure to and understanding of the governmental environment. Students seeking the MPA degree who do not have managerial experience in government are required to participate in the internship program.
May be repeated to a maximum of 12 units. Academic credit earned for the internship program is beyond the 39 units required for the MPA degree. Letter grade only (A-F).

590. Selected Topics in Public Policy and Administration (3)
Investigation of a special problem as defined by the instructor that is of current interest to the field of public policy and administration.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

597. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study in public policy and administration.
Letter grade only (A-F).
610. Seminar in Urban Affairs (3)
An interdisciplinary course gives students opportunity to develop expanded awareness of the interrelationships between various urban problems in the urban systemic environment.
Letter grade only (A-F).

660. Seminar in Organization Theory and Behavior (3)
Examination of theories of organizations and behavior of members therein. Among the subtopics: generalist management, bureaucracy, organization structure and design, systems theory, motivation, leadership, decision-making, group and team dynamics, power and conflict, culture, organization change and development.
Letter grade only (A-F).

670. Policy Issue Analysis (3)
Introduces theories and approaches to policy analysis. The core of the course follows the policy analysis cycle and includes: problem recognition, problem definition, development of alternative solutions, analysis of alternatives, selection of policy options, policy implementation and evaluation.
Letter grade only (A-F).

696. Research Methods in Public Administration (3)
Prerequisite: PPA 517 or STAT 108 or equivalent with a grade of "C" or better.
Covers the techniques of public sector research. Topics include research design, survey research, and statistical analysis. Note: Suggested: take PPA 696 early in MPA program. Letter grade only (A-F).

697. Directed Research (3)
Prerequisites: Advancement to candidacy, completion of required MPA courses, consent of instructor.
Required capstone project. Individual research of a public issue. Supervision of a full-time faculty member required.
May be repeated to a maximum of 6 units in the same semester. Letter grade only (A-F).
RECREATION AND LEISURE STUDIES
College of Health and Human Services

Department Office: Engineering Technology (ET) - 101
Telephone: (562) 985-4071
Faculty: Michael A. Blazey, Melissa H. D'Eloia, Keith Fulthorp, Maridith Janssen, Marilyn A. Jensen (Emerita), Terry Robertson
Department Chair: Terry Robertson
Department Coordinator: Seyha Chea
Graduate Advisor: Melissa H. D'Eloia

Career Possibilities
National, State and Municipal Parks and Recreation Coordinators, Managers, Supervisors, Directors; City Managers, and Community Services Directors, Park Naturalists, and Park Rangers; in Hospitals, Clinics and Rehabilitation Programs as Recreation Therapists; Senior Center Directors; University Recreation Center and Intramural Directors; Athletic Sports Program and Facility Managers, Student Services Managers; Outdoor Adventure and Day Camp Directors, Recreation Faculty or Club Managers, Travel and Tourism Agents or Guides, Sporting Goods Sales Representatives; Amusement Park, Hotel or Resort Managers, Military Recreation and Employee Services Specialists, Social Director and Event Managers; Nonprofit and Volunteer Services Managers. (For more information, see www.careers.csulb.edu)

Introduction
The Department exists to promote a broader and deeper understanding of the role that leisure and recreation provides in the lives of all people as well as to enhance the quality of Recreation Leisure experiences available to each person.

The department is accredited by the Accreditation Council of the National Recreation and Park Association (National Recreation and Park Association, Council on Accreditation for Parks, Recreation, Tourism and Related Professions, 22377 Belmont Ridge Road, Ashburn, VA 20148, phone: 703-858-0784).

Undergraduate Programs

Bachelor of Arts in Recreation (120 units)
This program is designed to accommodate the needs of new college students, continuing students, transferring students, and experienced recreation professionals.

Students intending to transfer from community colleges to this University are advised to complete general education requirements while attending the community college. Other recreation courses taken at community colleges cannot be substituted for upper-division recreation courses.

Student must maintain a cumulative 2.0 GPA on all units attempted and achieve a "C" or better in each course of the Recreation major to progress in the sequence of study. Students earning less than a "C" grade in a course required in the major must repeat that course.

Students wishing to substitute courses or deviate in any way from department requirements must submit a letter of request to the Department faculty. No more than six units of Recreation prefix courses may be taken by contract. The Internship is "Letter grade only (A-F)." The Internship is taken the last semester before graduation. No other courses may be taken concurrently with the Internship.

Requirements
Major Core Courses:
Take all of the following:
- REC 141 Introduction to Leisure Services (3)
  Prerequisite/Corequisite: One GE Foundation course.
- REC 225 Programming Recreation Activities (3)
  Prerequisites: None
- REC 341 Evaluation & Research in Leisure Services (3)
  Prerequisites: A grade of "C" or better in REC 141, REC 225.
- REC 351 Foundations of Inclusive Recreation and Recreation Therapy (3)
  Prerequisites: A grade of "C" or better in REC 141, REC 225.
- REC 480 Philosophy of Recreation and Leisure (3)
  Prerequisites: A grade of "C" or better in REC 341, REC 351, and three 400 level REC classes. Open to recreation majors only.

Take all of the following:
- REC 325 Advanced Program & Event Management (3)
  Prerequisites: A grade of "C" or better in REC 141, REC 225.
- REC 421 Supervisory and Administrative Practices (3)
  Prerequisite: A grade of "C" or better in REC 325, REC 341.
- REC 423 Facility Design and Operations (3)
  Prerequisites: A grade of "C" or better in REC 325, REC 341.
- REC 425 Financing Leisure Services (3)
  Prerequisite: A grade of "C" or better in REC 325.
- REC 427 Legal Aspects of Leisure Services (3)
  Prerequisite: A grade of "C" or better in REC 325.
- REC 431 Recreation Resource Management (3)
  Prerequisites: A grade of "C" or better in REC 141, REC 225.
- REC 498 Internship in Leisure Services (6-12)
  Prerequisites: Completion of all major requirements: REC 485, or 1000 hours of verified paid or volunteer leadership experience approved by faculty advisor, or 500 hours of experience and fluency in both English and a second language consistent with CSULB Language Proficiency Requirements; and consent of internship coordinator.

Take one of the following courses:
- ANTH 120 Introduction to Cultural Anthropology (3)
  Prerequisites/Corequisites: Any GE Foundation course.
- CDFS 211 Guiding Young Children (3)
  Prerequisites: A grade of "C" or better in PSY 100 or SOC 100 or CDFS 111.
- HDEV 180 Lifespan Human Development (3)
  Prerequisites: ENGL 100 or equivalent.
D. Tourism Management Concentration:

Take all of the following courses

REC 462 Travel, Tourism, and Resort Recreation Management (3)
Prerequisite: A grade of "C" or better in REC 325.

REC 468 Tourism Planning and Development (3)
Prerequisite: A grade of "C" or better in REC 325.

Take two of the following courses

REC 465 Convention and Conference Planning (3)

Prerequisite: A grade of "C" or better in REC 325.

REC 467 Principals of Ecotourism Development (3)
Prerequisite: A grade of "C" or better in REC 431.

REC 490 Belize Ecotourism (3)
Prerequisite: None.

HFHM 170 Introduction to Hospitality Food Service and Hotel Management (3)
Prerequisite: None.

GEOG 352 Geography of Tourism (3)
Prerequisite: None.

Take an additional upper-division recreation course (3)

Option in Recreation Therapy (120 units)

Students intending to transfer from community colleges to this University are advised to complete general education requirements while attending the community college. Courses equivalent to REC 141, REC 225 and lower-division courses applicable to concentrations within the major (HSC 150, BIOL 207, BIOL 208, PSY 100), should be taken while attending community college if offered. Other recreation courses taken at community colleges cannot be substituted for upper-division recreation courses.

Requirements

I. Major Core Courses:

Take all of the following:

REC 141 Introduction to Leisure Services (3)
"C" or better required.
Prerequisite/Corequisite: One GE Foundation course.

REC 225 Programming Recreation Activities (3)
"C" or better required.
Prerequisite: None.

REC 341 Evaluation & Research in Leisure Services (3)
"C" or better required.
Prerequisites: A grade of "C" or better in REC 141, REC 225.

REC 351 Foundations of Inclusive Recreation and Recreation Therapy (3)
"C" or better required.
Prerequisites: A grade of "C" or better in REC 141, REC 225.

REC 480 Philosophy of Recreation and Leisure (3)
Prerequisites: A grade of "C" or better in REC 341, REC 351, and three 400 level REC classes. Open to recreation majors only.

II. Complete Recreation Therapy Option requirements:

1. Take all of the following:

REC 451 Management and Administration of Recreation Therapy Services (3)
Prerequisites: A grade of "C" or better in REC 351, REC 452.

REC 452 Assessment and Documentation in Recreation Therapy (3)
"C" or better required.
Prerequisite: A grade of "C" or better in REC 351.

REC 453 Comprehensive Programming and Evaluation in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.

REC 454 Counseling Technique in Recreation Therapy (3)
Prerequisites: A grade of "C" or better in REC 351.

REC 458 Clinical Techniques in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.

HSC 150 Medical Terminology (1)
Prerequisite: None.

PSY 100 General Psychology (3)
Prerequisite/Corequisite: Students who score 147 or above
on the English Placement Test or "C" or better in one of the following: AFRS 100, ASAM 100, CHLS 104, ENGL 100S or ALI 150 or ALP 150 or equivalent.

PSY 370 Abnormal Psychology (3)
Prerequisites: PSY 100.

ANTH 319 Human Growth and Development (3)
Prerequisites: None.

REC 498 Internship in Leisure Services (6-12)
Prerequisites: Completion of all major requirements; REC 485, or 1000 hours of verified paid or volunteer leadership experience approved by faculty advisor, or 500 hours of experience and fluency in both English and a second language consistent with CSULB Language Proficiency Requirements; and consent of internship coordinator.

2. Take both of the following courses:
   - BIOL 207 Human Physiology (4)
     Prerequisite: GE Foundation requirements.
   - BIOL 208 Human Anatomy (4)
     Prerequisites: Grade of "C" or better in one of the following: ART 372, BIOL 201, BIOL 205, BIOL 207, BIOL 212, BIOL 311, CHEM 140, DANC 261, or MICR 200.

3. Take 9 units of approved elective courses from the following:
   - Anthropology, Biology, Communication, Dance, Educational Psychology, Gerontology, Health Science, Human Development, Psychology, Social Work, or Sociology.

Minor In Recreation
A minimum of 21 units approved by the departmental minor advisor which must include:
Take all of the following:
   - REC 141 Introduction to Leisure Services (3)
   - REC 225 Programming Recreation Activities (3)
   - REC 321 Leadership in Recreation & Leisure Studies (3)
   - REC 340 Leisure in Contemporary Society (3)
   - REC 351 Foundations of Inclusive Recreation and Recreation Therapy (3)
   - REC 425; REC 468, REC 490.
Take two of the following:
   - REC 220, REC 322, REC 324, REC 337, REC 371, REC 428, REC 430, REC 431, REC 433, REC 462, REC 473, or REC 490 with consent of advisor.

Minor In Event Planning and Management
The Event Planning and Management minor provides students with expertise for careers in event planning and management. Curriculum covers skills and knowledge including negotiation, event planning, programming, promotion, budget and legal issues.

Requirements
Core (18 units):
   - HFHM 170 Introduction to Hospitality Management (3)
     Prerequisites: None
   - HFHM 274 International Hospitality Development (3)
     Prerequisites: ENGL 100 or equivalent.

HFHM 374 Meeting Planning in Hotels and Restaurants (3)
Prerequisites: HFHM 170.

REC 325 Advanced Program & Event Management (3)
**"C" or better required.
Prerequisites: REC 141, REC 225 with a grade of "C" or better.

REC 462 Travel, Tourism, and Resort Recreation Management (3)
Prerequisite: A grade of "C" or better in REC 325.

Take 6 units of electives from the following courses:
   - ACCT 201; CECS 110, CECS 200; COMM 334; HFHM 372, HFHM 376; HFHM 378 or REC 427; HFHM 476 or REC 425; REC 468, REC 490.

Certificate Programs
The certificate programs are available to undergraduate and graduate students, and students who already possess a baccalaureate degree and are enrolling in a certificate program, unless otherwise noted. Students pursuing a degree may complete the certificate concurrently with or subsequent to their degree by enrolling as a certificate student. Courses taken for certificate requirements may be used, where appropriate, to meet the General Education or degree requirements of cooperating departments. Extension and/or transfer credit may comprise no more than one-fourth of the course work used to meet baccalaureate certificate requirements. Students should contact the department to schedule a meeting with the certificate advisor.

Certificate in Recreation Therapy
This certificate prepares students for the California Board of Recreation and Park Certification examination and for the National Council for Therapeutic Recreation Certification exam. A baccalaureate degree, which may be awarded concurrently, is required for completion of this certificate program.

This certificate is eligible for Financial Aid. Please see the department web site for required Federal disclosure information.

Take all of the following:
   - REC 351 Foundations of Inclusive Recreation and Recreation Therapy (3)
   - REC 351 Foundations of Inclusive Recreation and Recreation Therapy (3)
   - REC 451 Management and Administration of Recreation Therapy Services (3)
   - REC 452 Assessment and Documentation in Recreation Therapy (3)
   - REC 453 Comprehensive Programming and Evaluation in Recreation Therapy (3)
   - REC 454 Counseling Techniques in Recreation Therapy (3)
   - HFHM 374 Meeting Planning in Hotels and Restaurants (3)
   - REC 325 Advanced Program & Event Management (3)
   - REC 462 Travel, Tourism, and Resort Recreation Management (3)
   - REC 465 Convention and Conference Planning (3)
   - REC 498 Internship in Leisure Services (6-12)

Certificate in Nutrition
The Certificate in Nutrition is available to undergraduate and graduate students. Students must meet all General Education and major requirements. An additional 9 units are required.

Certificate in Recreation Management
The Certificate in Recreation Management is available to undergraduate and graduate students. Students must meet all General Education and major requirements. An additional 9 units are required.

Certificate in Recreation Program Services
The Certificate in Recreation Program Services is available to undergraduate and graduate students. Students must meet all General Education and major requirements. An additional 9 units are required.

Certificate in Tourism
The Certificate in Tourism is available to undergraduate and graduate students. Students must meet all General Education and major requirements. An additional 9 units are required.
Graduate Programs

Master of Science in Recreation Administration

Graduate study in Recreation Administration prepares students for advanced careers in the field of Parks, Recreation, and Tourism. Through a combination of online and traditional classroom instruction, students will explore the theoretical foundations of the field while developing the administrative and management skills needed to become managers of private, commercial, and public recreation agencies. Students may also focus on research design and methodology in preparation for a research-based position and/or doctoral studies.

Admission

Students seeking admission to the Department of Recreation and Leisure Studies graduate program must have an undergraduate degree and a desire for graduate study. Applicants must apply for admission to the Recreation and Leisure Studies department in addition to being admitted by Enrollment Services. The following items must be submitted to the Recreation and Leisure Studies Graduate Coordinator:

1. A copy of the CSULB graduate application
2. Official test scores on the Graduate Record Exam (GRE) General Test. While no specific cut-off scores are required on either the verbal or the quantitative sections, applicants must score a “4” or higher on the analytic writing section of the GRE.
3. A current resume that describes the applicant’s academic achievements (including honors and awards), extracurricular activities, as well as relevant work, internship and volunteer experiences.
4. Three letters of recommendation from persons able to testify to the student’s academic ability, preferably from former professors.
5. A personal statement addressing the following: (a) academic and professional goals; (b) a description of academic and professional experience; and (c) purpose for pursuing graduate study.

Prerequisites

Applicants for graduate study in Recreation and Leisure Studies must meet the following prerequisites.

1. A bachelor’s degree from an accredited university with a major or minor in recreation and leisure studies or related discipline. Students with Bachelor’s degrees from non-related majors who meet all other prerequisites should contact the graduate coordinator for an evaluation.
2. A student must have an overall undergraduate grade point average (GPA) in their major or minor of 3.0 or better. Students who have an overall GPA less than a 3.0, but present acceptable evidence of professional potential either through recent academic performance and/or experiential background, may be admitted by special action of the Department’s Graduate Committee.

Retention

Graduate students in recreation and leisure studies are expected to:

1. Maintain a 3.0 or higher GPA in all graduate work competed at CSULB and all graduate work transferred to meet graduate requirements.
2. Maintain satisfactory progress toward the degree objective.

Advancement to Candidacy

To be advanced to candidacy, recreation and leisure studies graduate students must successfully achieve the following:

1. Satisfactory completion of the graduate writing assessment requirement (GWAR; GRE analytical writing section).
2. Minimum of 3.0 overall GPA and a 3.0 GPA in all units undertaken for the approved program of study.
3. Satisfactory completion of the following courses with a “B” or better grade: REC 571, Philosophy, Issues, and Trends and REC 696, Research Methodology.
4. Approval of the Graduate Coordinator and the Associate Dean of the College of Health and Human Services.
5. Enrolled in the semester in which the advancement to candidacy takes place.

Requirements

Completion of the Master of Science in Recreation Administration requires 30 units of post-baccalaureate coursework to include the following:

1. Take 15 units of the following core courses (15):
   - REC 521, Recreation Administration (3)
     Prerequisites: None
   - REC 571, Philosophy, Issues, and Trends (3)
     Prerequisites: None
   - REC 591, Research Proposal Writing (3)
     Prerequisites: REC 571 and REC 595, and REC 696
   - REC 595, Data Analysis in Recreation Administration (3)
     Prerequisites: REC 571 and REC 596
   - REC 696, Research Methodology (3)
     Prerequisites: none

2. Complete 12 units of advisor-approved electives

3. A current resume that describes the applicant’s academic achievements (including honors and awards), extracurricular activities, as well as relevant work, internship and volunteer experiences.
3. Complete the graduate experience in one of three ways (3):
   REC 697, Directed Studies (3)
   OR
   REC 692, Directed Project (1-3)
   OR
   REC 698, Thesis (1-3)

   Students interested in pursuing leadership roles in the field of Parks, Recreation, and Tourism may wish to choose either REC 692 or REC 697 as their graduate experience. Students interested in pursuing a doctorate or research based positions within the field may wish to choose REC 698 as their graduate experience.

Courses (REC)

LOWER DIVISION

100./300. Orientation to the Recreation Major (3)
Orientation to the professional roles in the field of leisure services; the philosophy, academic requirements, standards, documentation, procedures of followed in the Department of Recreation and Leisure Studies; and computer applications required of all majors.
Letter grade only (A-F). (Discussion, 3 hours) Not open to students with credit in REC 300.

141. Introduction to Leisure Services (3)
Prerequisite/Corequisite: One GE Foundation course.
Survey of public, private and non-profit agencies engaged in leisure services. Examination of populations served. Organizing principles of the recreation and leisure services profession.
Not open to students who have completed REC 241.

201. Teamwork and Group Dynamics (3)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to group dynamics and teamwork. Presents participation in, leadership of, and facilitation techniques for team building through experiential group problem solving activities. Course utilizes ground based and low elements challenge course activities at the CSULB OutBAC Ropes Course. (Theory and practicum).
Letter grade only (A-F).

220. Universality of Play (3)
Prerequisites: GE Foundation requirements.
Exploration of ethnic origins of play from international perspective. Influence of play on creativity, drive and self image of society. (Theory and practicum)

225. Programming Recreation Activities (3)
Methods and materials used in planning and leading organized recreation programs in public and private agencies. Analysis of interpersonal and group skills necessary for effective leadership of recreation activities. Special emphasis on supervised programming field experiences.
Letter grade only (A-F).

UPPER DIVISION

300./300. Orientation to the Recreation Major (3)
Orientation to the professional roles in the field of leisure services; the philosophy, academic requirements, standards, documentation, procedures of followed in the Department of Recreation and Leisure Studies; and computer applications required of all majors.
Letter grade only (A-F). (Discussion, 3 hours) Not open to students with credit in REC 100.

321. Leadership in Recreation and Leisure Studies (3)
Theory and application of leadership as it pertains to leisure service agencies. In depth analysis of interaction between leadership styles and group dynamics. Facilitation techniques necessary for effective group leadership.

322. Recreational Sports Supervision (3)
Organization and supervision of recreational sports for community-wide participation.
(Lecture 2 hours, Activity 2 hours.)

324. Campus Recreation Services (3)
Principles and practices in provision of recreation services on college, secondary, and elementary school campuses

325. Advanced Program and Event Management (3)
Prerequisites: A grade of "C" or better in REC 141, REC 225.
Advanced management of recreation and leisure service programs with special emphasis on event planning and promotion. Includes interpretation of needs assessments and market analysis; analysis and selection of prospective client bases; program design, marketing, promotion, implementation and evaluation.
Letter grade only (A-F).

337. Environmental and Cultural Interpretation (3)
Principles and practices of environmental and cultural interpretation of outdoor recreation resources, including tours, brochures, slide shows and exhibits.
(Discussion, 3 hours)

340. Leisure in Contemporary Society (3)
Prerequisites: GE Foundations requirements; one or more Exploration courses; upper division standing.
Enhancing the understanding of leisure in contemporary society by examining beliefs, values, and social structures of one's own leisure and comparing and contrasting them with individual and social influences such as race/ethnicity, gender, sexuality, age, economic status, ability and religion.

341. Evaluation and Research in Leisure Services (3)
Prerequisites: A grade of "C" or better in REC 141, REC 225.
Foundations of current methods and practices of evaluation and research about leisure and in leisure services. Includes the critical need for evaluation and research in leisure services; research and evaluation concepts, types, and designs; sampling; and information/data collection, analysis, interpretation, and presentation.
Letter grade only (A-F).

351. Foundations of Inclusive Recreation and Recreation Therapy (3)
Prerequisites: A grade of "C" or better in REC 141, REC 225.
The role of inclusion in programming recreation services in society. Philosophical and historical foundations of recreation therapy, and principles of planning, implementing, and evaluating inclusive leisure services for individuals with disabilities.
(Lecture/Activity 3 hours)

371. Human Services Programming in Urban Areas (3)
Prerequisites: GE Foundation requirements.
Exploration of the community diversity, social issues, and community resources of urban areas in relationship to the concerns of recreation and human service needs. Examination of planning, development, and agency collaborations required to insure recreation services development meets community needs.

421. Supervisory and Administrative Practices (3)
Prerequisites: A grade of "C" or better in REC 325, REC 341.
Concepts and techniques of supervision and administration in recreation agencies; emphasis on recruitment, assignment, evaluation and in-service training of recreation personnel.
423. Facility Design and Operations (3)
Prerequisites: A grade of "C" or better in REC 325, REC 341.
Theories and practical experience in the design, development, operation, maintenance and administration of various recreational facilities.
Letter grade only (A-F).

425. Financing Leisure Services (3)
Prerequisite: A grade of "C" or better in REC 325.
Financing and budgeting in public and private sector leisure service agencies; management by objectives as related to fiscal elements.

427./527. Legal Aspects of Leisure Services (3)
Prerequisite: A grade of "C" or better in REC 325.
Political, policy making, and legal aspects underlying the establishment, operation, and termination of public and private leisure services.
Letter grade only (A-F). (Discussion, 3 hours.)

428./528. Principles of Nonprofit/Volunteer Management (3)
Survey of the principles of nonprofit and volunteer services management. The philosophical, historical and social context of the volunteer movement; funding, governance, organization and management of nonprofit organizations and volunteer services; trends and issues; professional development and employment.

430. Recreation in the Ocean Environment (3)
Prerequisite: Consent of instructor.
Study of the skills and techniques of administration of an ocean-oriented recreational resource, including management and trip planning. Will be supplemented with a week long field trip to Santa Barbara Island.

431. Recreation Resource Management (3)
Prerequisites: A grade of "C" or better in REC 141, REC 225.
Review of the techniques of recreation resource management; the role of citizens, government and private agencies in acquisition and development of these resources; development of resource management policies.

432. Wildlife and Wildfire Management in Urban Proximate Areas (3)
Study of the skills and techniques of managing wildlife and wildfires to improve public safety. Examination of management and visitor information services in city parks, national parks, national forests, and state parks surrounding the L.A. metro area.

433. Management of Organized Camps (3)
Management of organized camps, with particular emphasis on the role and responsibility of the on-site director; practical experience in all phases of camping. Topics include camp philosophies, job responsibilities, staff dynamics, campers' characteristics and needs, program development and facility management.

437. Access and Equity of Park Resources (3)
Prerequisite: A grade of "C" or better in REC 431.
Examination of distribution and management of city parks, county parks, and special park districts in the L.A. metro area. Analysis of historical and contemporary opportunity and access based on economic status, cultural background, gender, and mobility.

451. Management and Administration of Recreation Therapy Services (3)
Prerequisites: A grade of "C" or better in REC 351, REC 452.
Comprehensive recreation therapy program development, operation, and management. Administration of recreation therapy services and personnel. Advanced principles, issues, and trends in recreation therapy.
Letter grade only (A-F).

452. Assessment and Documentation in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Introduction to the theories, concepts, and techniques used in client assessment and documentation for recreation therapy programs and treatments. Students learn to assess the physical, cognitive, emotional, social, and leisure functioning of clients; develop measurable objectives; and document client progress.
(Lecture 2 hours, Activity 1 hour)

453. Comprehensive Programming and Evaluation in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Examination of treatment programs for a variety of populations and settings in Recreation Therapy. Students learn to develop comprehensive treatment plans based on client objectives, select appropriate program content, modify activities to meet client needs, and evaluate program effectiveness.
Letter grade only (A-F).

454./554. Counseling Techniques in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Letter grade only (A-F).

457./557. Legislative Action in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Overview of Recreation Therapy as related to national healthcare issues. Includes examination of various legislative issues/bills introduced in congress with a direct effect on the profession. This non-required course includes travel to a midyear conference in Washington D.C.
Letter grade only (A-F).

458./558. Clinical Techniques in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Examination of clinical techniques and practices in recreation therapy. Includes theoretical background to clinical treatment, facilitation techniques, and treatment modalities for individuals with disabilities.
Letter grade only (A-F). (2 hours lecture, 1 hour lab)

462. Travel, Tourism, and Resort Recreation Management (3)
Prerequisite: A grade of "C" or better in REC 325.
Current procedures and processes in managing travel, tourism and resort recreation organizations. Discussion includes the organization and management of human resources in the marketing of travel, tourism and resort recreation enterprises.

465. Convention and Conference Planning (3)
Prerequisite: A grade of "C" or better in REC 325.
Organizing, planning and managing conferences and conventions. Analysis of site and facility selection, scheduling, theme development, programming, affiliated events, exhibit management, registration and overall services.
Letter grade only (A-F).

467./567. Principles of Ecotourism Development (3)
Prerequisite: A grade of "C" or better in REC 325.
Principles and practices of ecotourism development from a socio-cultural, environmental, economic, and political perspective. Implementation of tourism development including certification issues, management of resources, and community choices. Ecotourism planning that benefits locals and travelers.
Letter grade only (A-F).
468. Tourism Planning and Development (3)
Prerequisite: A grade of "C" or better in REC 325.
Analysis of elements which are included in a community
development plans. Assessment of the touristic potential of a
region or site, enabling legislation, organization, and administration
of a tourism development plans, identification of sources of
resistance and support.

469./569. Disability, Culture and Society: Issues and
Intervention (3)
Prerequisite: Senior or graduate standing.
Disability as a social construct. Examines policies and practices
to understand the experience of disability. Includes historical and
contemporary perspectives as well as future issues. Emphasis on
social and clinical intervention methods as well as programs and
resources.
Letter grade only (A-F). Same course as GERN 469. Not open for
credit to students with credit in GERN 469 or SW 469.

473./573. Aging and Leisure (3)
Theories, concepts and influences on satisfaction with retirement
focusing on leisure-related issues. Overview of the continuum of
services, emphasizing leisure services available to older people.

480. Philosophy of Recreation and Leisure (3)
Prerequisites: A grade of "C" or better in REC 341, REC 351, and
three 400-level REC classes. Open to recreation majors only.
Exploration of the philosophical and ethical basis for current
practices in recreation and leisure service organizations.
(Discussion, 3 hours.)

485. Field Work (3)
Prerequisites: Consent of instructor.
Supervised experience in recreation leadership, supervision or
administration approved by faculty advisor or consent of instructor.
Credit/No credit grading only. May be repeated to a maximum of 6
units in different semesters.

490. Selected Topics in Recreation (1-3)
Identification and critical analysis of current problems in selected
areas of recreation.
May be repeated to a maximum of 6 units with different topics in
different semesters. Topics announced in the Schedule of Classes.

498. Internship in Leisure Services (6-12)
Prerequisites: Completion of all major requirements; REC 485,
or 1000 hours of verified paid or volunteer leadership experience
approved by faculty advisor, or 500 hours of experience and
fluency in both English and a second language with consistent
with CSULB Language Proficiency Requirements; and consent of
internship coordinator.
This internship will involve a minimum of 400 hours of supervised
experience in an approved leisure service agency jointly
supervised by university and agency personnel.
Letter grade only (A-F). (Field work) Course fee may be required.

499. Independent Study (1-3)
Prerequisites: Consent of department and department chair.
Individual projects in areas of special interest areas. Independent
study under the direct supervision of a faculty member.
May be repeated to a maximum of 6 units in different semesters
with consent of instructor.

GRADUATE LEVEL

521. Recreation Administration (3)
Organizational theory; planning, staffing and budgeting of
recreation programs in governmental and voluntary agencies.
Letter grade only (A-F).

527./427. Legal Aspects of Leisure Services (3)
Prerequisite: A grade of "C" or better in REC 325 or graduate student status.
Political, policy making, and legal aspects underlying the
establishment, operation, and termination of public and private
leisure services.
Letter grade only (A-F). (Discussion, 3 hours.)

528./428. Principles of Nonprofit/Volunteer
Management (3)
Survey of the principles of nonprofit and volunteer services
management. The philosophical, historical and social context of
the volunteer movement; funding, governance, organization and
management of nonprofit organizations and volunteer services;
trends and issues; professional development and employment.

532. Wildlife and Wildfire Management in Urban
Proximate Areas (3)
Study of the skills and techniques of managing wildlife and wildfires
to improve public safety. Examination of management and visitor
information services in city parks, national parks, national forests,
and state parks surrounding the L.A. metro area.

537. Access and Equity of Park Resources (3)
Prerequisite: A grade of "C" or better in REC 431.
Examination of distribution and management of city parks, county
parks, and special park districts in the L.A. metro area. Analysis of
historical and contemporary opportunity and access based on
economic status, cultural background, gender, and mobility.

554./454. Counseling Techniques in Recreation Therapy
(3)
Prerequisites: A grade of "C" or better in REC 351.
Current practices and procedures in recreation therapy using
counseling techniques. Includes techniques of leisure needs
assessments, leisure counseling and leisure education methods.
Covers recreation therapy practice perspectives using counseling/
leisure education as a treatment.
Letter grade only (A-F).

557./457. Legislative Action in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Overview of Recreation Therapy as related to national healthcare
issues. Includes examination of various legislative issues/bills
introduced in congress with a direct effect on the profession. This
non-required course include travel to a midyear conference in
Washington D.C.
Letter grade only (A-F).

558./458. Clinical Techniques in Recreation Therapy (3)
Prerequisite: A grade of "C" or better in REC 351.
Examination of clinical techniques and practices in recreation
therapy. Includes theoretical background to clinical treatment,
facilitation techniques, and treatment modalities for individuals with
disabilities.
Letter grade only (A-F). (2 hours lecture and 1 hour lab)

567./467. Principles of Ecotourism Development (3)
Prerequisite: A grade of "C" or better in REC 325 or graduate student status.
Principles and practices of ecotourism development from a
socio-cultural, environmental, economic, and political perspective.
Implementation of tourism development including certification
issues, management of resources, and community choices.
Ecotourism planning that benefits locals and travelers.
Letter grade only (A-F).
569./469. Disability, Culture and Society: Issues and Intervention (3)
Prerequisite: Senior or graduate standing.
Disability as a social construct. Examines policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Emphasis on social and clinical intervention methods as well as programs and resources.
Letter grade only (A-F). Same course as GERN 569. Not open for credit to students with credit in GERN 569.

571. Philosophy, Issues and Trends (3)
Exploration of the current philosophy, trends and issues in the field of recreation.
Letter grade only (A-F).

573./473. Aging and Leisure (3)
Theories, concepts and influences on satisfaction with retirement focusing on leisure-related issues. Overview of the continuum of services, emphasizing leisure services available to older people.

590. Selected Topics in Recreation (1-3)
Prerequisite: Consent of instructor.
In-depth investigation of topics of current interest and concern to students experienced in recreation.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

591. Research Proposal Writing (3)
Prerequisite: REC 571, REC 595, and REC 696.
Addresses variations in research design and methodology.
Completion of a thesis or project proposal is a requirement.
Letter grade only (A-F).

595. Data Analysis in Recreation Administration (3)
Prerequisites: REC 571 and REC 696.
Analysis of administrative studies and surveys; procedures for conducting and analyzing appraisals of recreation programs and facilities.
Letter grade only (A-F).

599. Independent Study (1-3)
Prerequisites: Consent of graduate advisor and department chair. Independent research under the supervision of a Recreation and Leisure Faculty member.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

692. Directed Project (1-3)
Prerequisites: REC 591, REC 696, and Advancement to Candidacy
Students will work under the guidance of a faculty advisor to develop a project that advances the field of Recreation, Parks, and Tourism.
Letter grade only (A-F) (Independent Study)

696. Research Methodology (3)
Research methodology in recreation. To be completed within the first 12 units of the 500/600 series of courses.
Letter grade only (A-F).

697. Directed Studies (3)
Prerequisites: REC 591, REC 696, and advancement to candidacy.
Independent investigation of field research problems in recreation.
Letter grade only (A-F). May be repeated to a maximum of 3 units in different semesters.

698. Thesis (1-3)
Prerequisites: REC 591, REC 696, advancement to candidacy.
Planning, preparation and completion of an approved thesis. May be repeated to a maximum of 4 units in different semesters.
RELIGIOUS STUDIES
College of Liberal Arts

Department Chair: David Tabb Stewart
Department Office: McIntosh Humanities Building (MHB) 619
Telephone: (562) 985-5341
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Email: religious-studies@csulb.edu
Website: www.cla.csulb.edu/departments/relstud/

Faculty: Gabriel Estrada, Edward J. Hughes, F. Stanley Jones, Peter M. Lowentrout, Sophia Pandya, Carlos R. Piar, David Tabb Stewart, Jon R. Stone

Undergraduate Programs

Bachelor of Arts in Religious Studies (120 units)
Students interested in this program should apply to the department chair.

Requirements
The Religious Studies major is organized into four areas of study. Religious Texts examines texts from the world's religious traditions and their historical and cultural contexts. Religious Traditions (Group A) includes coursework in Judaism, Christianity and Islam, and Religious Traditions (Group B), coursework in Buddhism, the religions of Japan, the religions of South Asia, the religions of Southeast Asia, and indigenous religions. The fourth area of study is Religion in the Contemporary World.

A minimum of 36 units is required as follows:
Core Courses:
Take 6 units from the following:
R/ST 100, R/ST 101, R/ST 111, R/ST 200, R/ST 201
Take the following course:
R/ST 401 Theory and Methods in Study of Religion (3)
Prerequisite: Consent of instructor.

Area Courses:
27 units selected from the following four categories, with at least 3 units in each:*
Religious Texts:
Religious Traditions (Group A):
Religious Traditions (Group B):
Religion in the Contemporary World:

*Courses with a subject focus on religion that are offered by other departments can be articulated into the major (up to 6 units).
**When the subject matter of a special topics or directed studies course is applicable, the course may be used.

Minor in Religious Studies
Requirements
The Minor in Religious Studies is available to any non-Religious Studies major. It requires coursework in at least two of the following four areas of study. Religious Texts examines texts from the world's religious traditions and their historical and cultural contexts. Religious Traditions (Group A) includes coursework in Judaism, Christianity and Islam, and Religious Traditions (Group B), coursework in Buddhism, the religions of Japan, the religions of South Asia, the religions of Southeast Asia, and indigenous religions. The fourth area of study is Religion in the Contemporary World.

A minimum of 18 units is required as follows:
Lower Division:
A minimum of six units selected from the following:
R/ST 100, R/ST 101, R/ST 111, R/ST 200, R/ST 201, R/ST 202, R/ST 208, R/ST 210, R/ST 230, R/ST 240

Upper Division:
A minimum of 12 upper-division units selected from at least two of the following four areas:
Area Courses:
Religious Texts:
Religious Traditions (Group A):
Religious Traditions (Group B):
Religion in the Contemporary World:

Courses with a subject focus on religion that are offered by other departments can be articulated into the minor (up to 3 units).
*When the subject matter of a special topics or directed studies course is applicable, the course may be used.

Certificate in Religious Studies
Please be aware that this program is not eligible for Financial Aid unless pursued concurrently with a degree program.

Requirements
A bachelor’s degree with a major in a traditional
discipline. The Religious Studies Certificate is organized into four areas of study. Religious Texts examines texts from the world’s religious traditions and their historical and cultural contexts. Religious Traditions (Group A) includes coursework in Judaism, Christianity and Islam, and Religious Traditions (Group B), coursework in Buddhism, the religions of Japan, the religions of South Asia, the religions of Southeast Asia, and indigenous religions. The fourth area of study is Religion in the Contemporary World.

A minimum of 24 units in Religious Studies:
Lower Division:
A minimum of six units selected from the following:
R/ST 100, R/ST 101, R/ST 111, R/ST 200, R/ST 201, R/ST 202, R/ST 208, R/ST 210, R/ST 230, R/ST 240
Upper Division:
A minimum of 18 upper-division units, with at least one course selected from each of the following four course areas:
Religious Texts:
Religious Traditions (Group A):
Religious Traditions (Group B):
R/ST 313A, 313B, R/ST 341, R/ST 344, R/ST 351, R/ST 352, R/ST 353, R/ST 358, R/ST 490*
Religion in the Contemporary World:

Courses with a subject focus on religion that are offered by other departments can be articulated into the certificate (up to 6 units).

*When the subject matter of a special topics course is applicable, the course may be used.

Graduate Programs

Master of Arts in Religious Studies

Admission
The primary criteria for admission are the same as those for University graduate admission. In addition, the applicant must have a Bachelor’s degree in Religious Studies, or its equivalent, and have achieved a 3.0 GPA in the last 60 semester units attempted. Three letters of recommendation two of which should be from the instructors in the undergraduate major are required.

Requirements
1. Minimum total units: 30 units of upper division or graduate study, at least 24 of which must be in Religious Studies. The remaining 6 may be in Religious Studies or another field of study related to Religious Studies and/or the candidate’s educational interests. Each student’s program must include a minimum of 24 units of graduate courses (which can include 6 units of Biblical Aramaic or Biblical Hebrew, or Nahuatl), at least 12 of which must be in the 600 series (not including R/ST 697 and R/ST 698). All students must satisfactorily complete R/ST 601. Students taking courses for language proficiency outside the Department offerings may need an additional 6-16 units of work beyond the minimum number of units for the M.A.

2. A thesis or comprehensive examination. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

3. Proficiency in a modern research language (German or French) demonstrated by passing either the ETS examination with a score of 400 or better or two years of course work with an average grade of "B" or better. Proficiency in an appropriate ancient research language (Nahuatl, Sanskrit, Biblical Aramaic, Hebrew, Chinese, etc.) replaces the modern language requirement for students concentrating in a related area of study. Exceptions to the language requirement are rare, but may be made at the discretion of the Graduate Studies Committee.

4. Advancement to Candidacy is a statement of how the student plans to complete all courses and requirements for the degree, including establishing a date and a committee for the thesis or comprehensive examination. It is best done as early as possible. Students taking a comprehensive examination must be advanced to candidacy no later than the semester preceding the examination. Students writing a thesis are advanced to candidacy at the time they begin their thesis work.

Note: Students admitted to the M.A. in Religious Studies who have deficient preparation in Religious Studies must take up to 24 units from undergraduate courses.

Courses (R/ST)

LOWER DIVISION

100. Introduction to Religion (3)
Prerequisite/Corequisite: One GE Foundation course.
Origin, nature, and function of religion in the individual and culture with emphasis upon and reference to outstanding personalities, sacred writings, and basic features of the world’s leading religions.

101. Religion at the Movies (3)
Prerequisite/Corequisite: One GE Foundation Course.
Introduces students to the nature of religion and its cultural contexts as reflected in film, examining the religious compensatory functions of film and the processes of religion as represented in selected films from various genres.
111. Religion Games: Religion in the Public Square (3)
Prerequisite/Corequisite: One GE Foundation Course
Introduces how religion functions in the “public square” in different historical eras/cultures through live action role-playing or other games. Issues include the tension between religion as a mode of governing and individual freedom, as resistance, and in conflict with science.
Letter grade only (A-F).

200. Introduction to Early and Western Religions (3)
Prerequisites: Completion of GE Foundation requirements.
A survey of representative figures, themes, the schools in Western religious thought, including Judaism, Christianity and Islam.

200. Introduction to Asian Religions (3)
Prerequisites: Completion of GE Foundation requirements.
Survey of Indian, Chinese and Japanese religious thought. Emphasis will be on original texts in translations.

202. Religion and Society (3)
Prerequisite: GE Foundation requirements.
Religious and secular views of the relation of persons and society with emphasis upon contemporary problems of personal and social ethics, political responsibility and social structure.

208. Religion and Sexual Ethics (3)
Prerequisite: Completion of GE Foundation requirements.
Exploration of ethical issues related to sexuality within major world religions. Critical analysis of religious norms governing sexuality, particularly as these relate to diverse understandings of the body as a locus of both transcendence and/or social control.
Letter grade only (A-F).

210. Introduction to the Bible (3)
Prerequisite: GE Foundation requirements.
Overview of Sacred texts of Jews and Christians. Inspiration, Creation, Salvation, and other Biblical themes will be discussed, as well as key persons and events, such as Moses, Jesus, etc.
Not available to students with credit in R/ST 101A.

230. Heaven, Hell and Other Afterlives (3)
Explores the history and development of notions of the afterlife in Judaism. Jewish ideas about the experience of death and the fate of the dead will be studied in the context of broader reflection on ancient Mesopotamian, Egyptian, and Greek views of the afterlife, as well as brief considerations of Christian and Muslim views of the afterlife.

240. Love, Life, and the World (3)
Prerequisite: GE Foundation requirements.
Examines love in life and the world. Students will explore the philosophical, religious-mystical, psychological, social, and natural historical dimensions of love and complete both practical and research projects that will lead them to a fuller understanding of a loving life.

UPPER DIVISION
General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

301. Approaching Religion (3)
Prerequisite: GE Foundation requirements.
Study of methods of religious studies, including the comparative and phenomenological study of religions, textual criticism, exegesis, research methods and techniques.

302. American Religious Diversity (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the diverse religious landscape of American society with a focus on the experiences of some of its major ethnic and racial communities, to include Native American, African American, Latino, and/or Asian American traditions.

303. Queer Spirit (3)
Prerequisites: Prerequisites: GE Foundations Completed, one or more Exploration classes completed, and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Queer written analysis of the integrated spiritual, psychological, social and physiological aspects of Abrahamic, Eastern, Indigenous, Neo-pagan, secular, and race/class/gender/nation/sexuality-defined spiritual and religious traditions.
Letter Grade Only (A-F), Same course as WGSS 303, Not open for credit to students with credit in WGSS 303.

308. Comparative Religious Ethics (3)
Prerequisite: GE Foundation requirements.
Introduction to study of ethics within global perspectives while introducing world religions. Major ethical questions and modes of moral reasoning in different religious traditions will be considered while focusing on why ordinary people do good and evil actions.

311. Religion and Literature of the Hebrew Bible/Old Testament (3)
Prerequisites: GE Foundation requirements, completion of one or more Explorations courses, and upper-division standing.
The Hebrew Bible, or Old Testament, read in translation as a religious, historical and literary document with emphasis on the religion and culture of the ancient Israelites in their ancient Near Eastern context. Selected books from its three divisions – Torah, Prophets, and Writings—are read each term.

312. Intertestament Literature, Palestine History, and Early Christianity (Dead Sea Scrolls) (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Historical development of Jewish religion and culture in the Second Temple period from the rise of the Maccabees to the beginnings of Christianity with emphasis on the rise of the Jewish State, the coming of the Romans and the beginnings of primitive Christianity (Essenism, Phariseeism and Sadduceeism).

313A: Introduction to Nahuatl Language and Ancient Mexican Codices (3)
Prerequisite: GE Foundation requirements
Introduction to Nahuatl grammar and composition as well as a religious understanding of Nahua calendars and deities as painted in Tlaxcalteca, Mexico, and Mesoamerican codices.
Letter grade only (A-F)

313B: Introduction to Nahuatl Language and Religious Literature (3)
Prerequisite: RST 313A, GE Foundation requirements
Introduction to Nahuatl language with an emphasis on the beginning translation of Mexico, Tlaxcalteca, Caxcan, Pipil, and other Nahuat religious documents as written in Spanish orthography in classic and modern eras.
Letter grade only (A-F)
314. Jewish Religion (3)
From the end of the Second Temple period to the close of the Middle Ages. Development from Hellenistic Judaism to Rabbinic Judaism to philosophical theology will be gone into in some detail. Readings from Saadya, Halevi and Maimonides, etc.

315. Modern Jewish Thought/Zionism (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Development of Jewish thought from enlightenment and emancipation from ghettos, through attempts at assimilation, the Holocaust and birth of the Jewish State. Development of conservative, reform and orthodox Judaism.

317. Jewish Mysticism (3)
Prerequisite: GE Foundation requirements.
Explores some major trends and themes of the Jewish mystical and esoteric tradition. Included are various forms of Kabalah and Hasidism, meditation and mysticism; explanations of and responses to evil; the nature of God and the relationship between human beings and the divine being; gender dynamics, and the power of ritual.

318. Biblical Hebrew I (3)
Biblical Hebrew I imparts the basic grammatical inflections, conjugations, and structures of elementary biblical Hebrew and starts the student on the path of mastering the specific vocabulary of biblical Hebrew. Introduces history and particularity of this language as well as standard reference tools employed in reading biblical Hebrew.

319. Biblical Hebrew II (3)
Prerequisite: R/ST 318.
Biblical Hebrew II completes instruction in grammar of biblical Hebrew and introduces major syntactical constructions of this language. Increases student's biblical Hebrew vocabulary, hones skills in use of reference books for biblical Hebrew, and allows initial confrontation with selections from Hebrew Old Testament itself.

320A. Biblical Aramaic I (3)
Prerequisite: GE Foundation requirements.
Alphabets and grammar of Aramaic, the language of Jesus, will be taught. Cultural excursuses survey the history of the ancient international language Aramaic and its role in understanding Jesus and the Judaism of his time.
Not open for credit to students with credit in R/ST 220A.

320B. Biblical Aramaic II (3)
Prerequisite: GE Foundation requirements.
Advanced grammar and readings in Aramaic, the language of Jesus and the international language of the Near East prior to the importation of Greek. Select cultural excursuses into the historical impact of Aramaic and special study of unpublished manuscripts.
Not open for credit to students with credit in R/ST 220B.

322. New Testament and Earliest Christian Literature (3)
Prerequisite: GE Foundation requirements.
The emergent Christian community, seen through the missionary and pastoral letters, the synoptic gospels, the radical theologies of Paul and John and the dramatic visions of the Apocalypse.

331. Islamic Religion and Culture (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
The Koran, Muhammad and the rise of Islam as a cosmopolitan faith. The development of Muslim civilization, including literature, theology, philosophy and Sufism (mysticism).

337. Sufism (3)
Prerequisite: GE Foundation requirements, one or more Explorations courses and upper-division standing.
Covers mainly Sufism and Shi’ism and their intimate relationship. Examines contribution of some great Sûfis and Shi’ite thinkers to development of inner dimensions of Islam i.e. mysticism, esoterism, and spirituality.
Letter grade only (A-F).

341. Buddhism (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
The Buddha: early Buddhism; the great vehicle; and the vehicle of incantations. Transmission of Buddhism to China, Korea, Japan, Southeast Asia and Tibet. Emphasis on original texts in translations.

344. Religions of Japan (3)
Prerequisite: GE Foundation requirements.
Transmission of continental civilization to Japan; Shinto, Buddhism and Tokugawa Neo-Confucianism; Genroku culture; and New Religions. Emphasis on original texts in translations.

351. Hinduism (3)
Prerequisite: GE Foundation requirements.
Introduction to the religious traditions of Hinduism. Emphasis on the historical and textual study of Hinduism through its various literatures (sacred, narrative, poetic, liturgical, and philosophical). Explores Vedic traditions of sacrifice, the speculative philosophy of the Upanishads, the religious epic and mythological literature, the main gods and goddesses, and the devotional poetry of the medieval poet-saints.

352. Religions of India (3)
Prerequisite: GE Foundation requirements.
A survey of Indian religions to the present. Emphasis will be on the ways that religions of historic India have developed and interacted.

353. Religions of Southeast Asia (3)
Prerequisites: GE Foundation requirements, completion of one or more Explorations courses, and upper-division standing.
Introduction to the religions of Southeast Asia. Ancient religion, historical transmission and adaption of Hindu and Buddhist traditions, and recent developments in modern Southeast Asia will be discussed. Emphasis on the religious culture of mainland Southeast Asia.

358. Women and Islam in Global Perspective (3)
Prerequisite: GE Foundation requirements.
Introduces a wide range of issues regarding women and Islam, and examines some of the diverse religious, social, political, and economic roles that Muslim women have played from the early days of Islam to the present period.
Letter grade only (A-F).

362. Religion and Psychology (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the religious and psychological interpretation of both individual and community religious activity and experience.

375. The Historical Jesus (3)
Prerequisite: GE Foundation requirements.
Historical reconstruction of the life and thought of the “Founder” of Christianity in his contemporary cultural and political environment. Standard historical and religious-historical methods are introduced and applied to the preserved sources.
376. Christian Origins (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Consideration of two factions in the early Church in Palestine in the First Century, one following the ‘Apostle to the Gentiles’ and the other following the family line of Jesus. Readings from primary sources, Paul’s Letters, Eusebius, and apocryphal literature.

383. Christianity and Global Ethics (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines interaction of Christianity with secular socio-economic ideologies related to globalization and response of Christianity to such ethical issues as poverty, population growth, consumerism, environmental degradation, war, and genocide.
Letter grade only (A-F).

391. Religion and Science (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the occasionally harmonious, often acrimonious, relationship between religion and science. Examines the fundamental insights and claims of both religion and science, moving beyond the frequently sharp prejudices they initially bring to their study to a more reasoned understanding of each alone and in relation to each other.
Letter grade only (A-F).

401. Senior Seminar: Theories and Methods in the Study of Religion (3)
Prerequisite: Consent of instructor.
Examines and compares theories and research methods used in the discipline of Religious Studies, both classical and contemporary. Serves as a capstone course for Religious Studies majors, to include assignments that provide departmental assessment of the major.
Letter grade only (A-F).

402. Religion in America (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Survey of major themes in the unique American religious experience. Topics include the adaptation of European Christianity to novel American circumstances, the proliferation of denominations and the varied religious response to a dynamic American society.
Not open for credit to students with credit in R/ST 482I.

410. Women, Religion and Spirituality (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper-division standing, or consent of instructor.
Study of women as spiritual and religious beings responding to and coping with largely patriarchal religious doctrine. Examines socio-religious construction of women and women’s religious experience from prehistory to present day. Focus on feminist transformations of religious traditions.
Same course as WGSS 410. Not open for credit to students with credit in WGSS 410.

457. Religion, Film and Literature (3)
Examines religion, film and literature in light of the epochal processes of secularization and demythologization. Uses the critical methods of the studies of religion and the narrative arts to explore these important sociocultural processes.

458. Women, Religion, and the Developing World (3)
Prerequisites: Upper division or graduate standing.
Causes and implications of globalization, the impact of globalization on women in the developing world, and the multifaceted role that religion and religious constructions of gender play in this picture.

460. Jewish Christianity (3)
Prerequisite: Consent of instructor.
History and literature of ancient Jewish Christianity in its relationship to Gentile Christianity and Judaism, from the relatives of Jesus through the fourth century.
Letter grade only (A-F).

467. Religion in Latin America and the Caribbean (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Exploration of role of religion in the history, politics, and culture of Latin America. Surveys pre-Columbian religion, the impact of the Encounter, the growth of Protestantism, Liberation Theology, and the coming of age of Afro-Cuban and Afro-Brazilian religions.
Letter grade only (A-F).

471. Early Christianity and Society (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Development of Christianity from the New Testament period to Medieval times with emphases on the growth of doctrine and church institutions in ancient and medieval society.

472. Formation of Modern Christianity (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Restructuring and renewal of Christianity, from the Reformation through the dawn of modern consciousness to the challenge of 20th century secular life.

490. Selected Topics in Religious Studies (1-3)
Topics of current interest in religious studies selected for intensive development.
May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Directed studies to permit individual students to pursue topics of special research interest.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL

550. Islam in the Contemporary World (3)
Examines key thinkers, movements and issues arising in the global Muslim community in the modern period. It covers early reform movements, the Iranian Revolution, Islamic revivalism, religious violence, Progressive Islam, gender justice, Islam and sexuality, and Muslims in America.
Letter grade only (A-F). Not open for credit to students with credit in R/ST 501.

557. Religion, Film and Literature (3)
Examines religion, film and literature in light of the epochal processes of secularization and demythologization. Uses the critical methods of the studies of religion and the narrative arts to explore these important sociocultural processes.
Letter grade only (A-F)

558. Women, Religion, and the Developing World (3)
Prerequisites: Upper division or graduate standing.
Looks at causes and implications of globalization, impact of globalization on women in the developing world, and the multifaceted role that religion and religious constructions of gender play in this picture.
560./460. Jewish Christianity (3)
Prerequisite: Consent of instructor.
History and literature of ancient Jewish Christianity in its relationship to Gentile Christianity and Judaism, from the relatives of Jesus through the fourth century.
Letter grade only (A-F).

590. Selected Topics in Religious Studies (3)
Prerequisite: Consent of instructor.
Topics of current interest in Religious Studies selected for intensive development.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

595. Advanced Study (3)
Prerequisite: Consent of instructor.
Study under the supervision of a faculty member. Student must fulfill requirements of a selected upper division course plus additional work appropriate to graduate study as determined by the instructor of the course.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics in the same semester.

599. Graduate Tutorial (1-3)
Prerequisite: Consent of instructor.
Supervised and independent study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in the same semester.

601. Theories and Methods in the Study of Religion (3)
Prerequisite: Consent of instructor.
Examines classical and contemporary theories of religion. Analyzes and compares research methods current in the discipline of Religious Studies.
Letter grade only (A-F).

604. Seminar in Religion in the Contemporary World (3)
Prerequisite: Consent of instructor.
Advanced inquiry into aspects of religion in the contemporary world, including its ethical, cultural, historical or theoretical dimensions.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

610. Indigenous Religion, Gender, and Representation (3)
Prerequisite: Graduate standing or consent of instructor.
Graduate seminar on contemporary and historical Indigenous religions of the Western Hemisphere with focus on worldview, gender, indigenous methodologies, and representation.
Letter grade only (A-F).

624. Seminar in Ancient Mediterranean Religion (3)
Prerequisite: Consent of instructor.
Advanced inquiry into the religions of the Ancient Mediterranean.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

646. Seminar in Buddhist Studies (3)
Prerequisite: Consent of instructor.
Advanced inquiry into topics in Buddhist Studies.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics.

651. Religion in an Age of Science (3)
Prerequisite: Graduate standing or permission of instructor
This graduate seminar examines modern opinion raging from skeptical to hopeful on the possibilities for religious belief in our scientific age.
Letter grade only (A-F).

659. Violence, Religion, Gender and Sexuality (3)
Prerequisite: Graduate Standing or consent of instructor
Explores the connections between religion, sexuality, and forms of violence against women in the contemporary world. Examines this issue from within a wide range of global contexts, including the US, and from a variety of world traditions
Letter grade (A-F) only.

665. Magic, Witchcraft, Sexuality and Religion (3)
Prerequisite: Graduate standing
Focuses on connections between magic, witchcraft, sexuality and power in the contemporary, global world. How have the labels of magic and witchcraft been used to deny power to marginalized peoples? How are such actually practiced to resist those in power?
Letter grade only (A-F).

690. Selected Topics in Religious Studies (3)
Prerequisite: Consent of instructor.
Topics of current interest in religious studies selected by the faculty for intensive development.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in the Schedule of Classes.

697. Directed Research (1-3)
Prerequisite: Consent of instructor.
Directed Studies to permit individual students to pursue topics of special research interest.
Letter grade only (A-F). May be repeated to a maximum of 9 units in the same semester.

698. Thesis (1-6)
Prerequisites: Advancement to candidacy, consent of advisor.
Planning, preparation and completion of thesis for the master’s degree.
May be repeated to a maximum of 6 units.
ROMANCE, GERMAN, RUSSIAN LANGUAGES AND LITERATURES
College of Liberal Arts

Department Chair: Markus Muller
Office: Academic Services, Room 309
Telephone: (562) 985-4317
http://www.cla.csulb.edu/departments/rgrll/

Program Directors
Clorinda Donato (Italian)
Jeffrey High (German)
Aparna Nayak (French)
Harold K. Schefski (Russian)
Claire E. Martin (Spanish)

RGRLL Language Coordinator: Cedric Oliva

Single Subject Coordinator for L.O.T.E.: Cynthia Leathers
French Faculty: Laura Ceia, Clorinda Donato, Aparna Nayak, Najib Redouane
German Faculty: Jeffrey L. High, Nele Hempel-Lamer
Italian Faculty: Clorinda Donato, Enrico Vettore
Russian Faculty: Harold K. Schefski
Spanish Faculty: Maria Carreira, Alicia del Campo, Daniel Herrera Cepero, Bonnie Gasior, Claire E. Martin, Alexander Rainof

Administrative Support Coordinator: Alessandro Russo

Students desiring information should contact the department office for referral to one of the faculty advisors. Credential advisors, Undergraduate Advisor, Graduate Advisor.

Teaching Assistantships in French, German, Italian, and Spanish

Teaching Assistantships are available for qualified students in the French, German, Italian, and Spanish M.A. Program. New applicants for Teaching Assistantships must have been accepted into the M.A. Program and must present a letter of application, a resume, a complete set of transcripts, and arrange for three confidential letters of recommendation to be sent to the Language Coordinator. Teaching Assistants are required to enroll in RGR 601 (Teaching Methodology). Students are also encouraged to apply for financial assistance under the Federal Work-Study Program.

Scholarships Available in the Romance, German, Russian Languages and Literatures Department

The Department awards over $20,000 of scholarships annually. Please contact the department office for application deadlines or visit our website at csulb.edu/colleges/cia/departments/RGRLL.

Department Courses (RGR)

LOWER DIVISION

100A. Uptown/Downtown: The City as Text (3)
Corequisite: One G.E. Foundation course.
Introductory gateway course to French-, German-, Italian-, and Spanish-speaking cultures through the lens of various representative cities.

UPPER DIVISION

314. Introduction to Contemporary Europe (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary introduction to contemporary European cultures and related issues through a combination of travel and study. Introduced to some principles and methods useful for analyzing cultures and their own interactions with them.
Not open for credit to students with credit in C/LA 314.

315. Contemporary European Society (3)
Prerequisite: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Interdisciplinary approach to understanding cultural and political developments in contemporary European societies. Although study of history serves as foundation of course, perspectives and methodologies of several other social science disciplines are important components.
Both grading options. Not open for credit to students with credit in C/LA 315.

346. The European Cinema of Communism, Fascism and Resistance (3)
Prerequisites: GE Foundation requirements, one or more exploration courses, and upper-division standing.
Focuses on European cinema of twentieth century as manifestation of totalitarian and ideological movements preceding, in-between, and following the two world wars. Ensuing and ongoing resistance movements also examined.
Same course as HIST 346 and FEA 346. Not open for credit to students with credit in HIST 346 and FEA 346. (2 hrs sem, 2 hrs activity)

400. Crime and Punishment (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses and upper-division standing.
Explores literary representations and cultural manifestations of issues related to crime, punishment, justice, and violence in Europe, Africa, Asia, and the Americas.

424./524. Second Language Acquisition (3)
Prerequisite: Upper-division standing
Study of history of second language learning/teaching. Overview of current research in second language acquisition, with emphasis on implications for teaching foreign languages. Evaluation and development of methods, materials, and tests.
Letter grade only (A-F). Not open for credit to students with credit in SPAN 424/524. (Undergraduates register in RGR 424; graduates register in RGR 524) (Seminar)
425/.525. Romance Linguistics (3)
Prerequisites: FREN 424 or SPAN 423 or ITAL 414 or consent of program instructor.
Comprehensive description of the constitution and development of Romance languages in all their aspects: phonetical, lexical and morphosyntactical. Taught in English.

450. 1492 and Beyond (3)
Prerequisites: GE Foundation requirements, completion of one or more Exploration courses and upper-division standing.
Explores cultural changes that resulted from contact among peoples of Europe, Africa, Asia, and the Americas from 1492 to the present. Incorporates art, literature, social sciences, history, architecture, and related fields.
Same course as CHLS 450. Not open for credit to students with credit in CHLS 450.

470/.570. New Technologies in the Learning of Languages Other Than English (3)
Prerequisites: Advanced communication skills in the target language; basic knowledge of computer use (LI 110 or ISTE competencies for K-12 students); EDSS 300F, or concurrent enrollment, or consent of instructor.
Introduction to computer-based technology in the teaching of Languages Other Than English (LOTE). Production of basic multimedia presentations and web-pages using authoring software. Legal, ethical, privacy and security issues. Meets the Single Subject Credential Program Level I computer proficiency requirement for LOTE students.
Letter grade only (A-F).

485/585. Intercomprehension among Romance Languages: a Road to Multilingualism (3)
Prerequisite: Knowledge of English and one Romance language, upper division.
Study of five Romance languages through the application of the strategies of Intercomprehension to acquire reading competence, plurilingual and pluricultural knowledge.
Letter grade only (A-F).

490/.590. Selected Topics (3)
Prerequisite/Corequisite: Graduate standing or consent of graduate advisor.
Course Description: Exploration of a specific topic related to language, literature, linguistics, translation, and/or culture within RGRLL. May be repeated up to 6 units in different semester with different topics. Letter grade only (A-F).

GRADUATE LEVEL

524/.424. Second Language Acquisition (3)
Study of the history of second language learning/teaching. Overview of current research in second language acquisition, with emphasis on its implications for teaching foreign languages. Evaluation and development of methods, materials, and tests.
Letter grade only (A-F). (Undergraduates register in RGR 424; graduates register in RGR 524) (Seminar)

525/.425. Romance Linguistics (3)
Prerequisites: FREN 424 or SPAN 423 or ITAL 414 or consent of instructor.
Comparative description of the constitution and development of Romance languages in all their aspects: phonetical, lexical and morphosyntactical. Taught in English.

570/.470. New Technologies in the Learning of Languages Other Than English (3)
Prerequisites: (A) Advanced communication skills in the target language. (B) Basic knowledge of computer use (ETEC 110 or ISTE competencies for K-12 students). (C) EDSS 300F, or concurrent enrollment, or consent of instructor.
Introduction to computer-based technology in the teaching of Languages Other Than English (LOTE). Production of basic multimedia presentations and web-pages using authoring software. Legal, ethical, privacy and security issues. Meets the Single Subject Credential Program Level I computer proficiency requirement for LOTE students.
Letter grade only (A-F).

585/485. Intercomprehension among Romance Languages: a Road to Multilingualism (3)
Prerequisite: Knowledge of English and one Romance language, graduate standing or consent of graduate advisor.
Study of five Romance languages through the application of the strategies of Intercomprehension to acquire reading competence, plurilingual and pluricultural knowledge.

590/.490. Selected Topics (3)
Prerequisite/Corequisite: Graduate standing or consent of graduate advisor.
Course Description: Exploration of a specific topic related to language, literature, linguistics, translation, and/or culture within RGRLL. May be repeated up to 6 units in different semester with different topics. Letter grade only (A-F).

601. Teaching Methodology (3)
Prerequisite: Graduate level or consent of instructor in French, German, or Spanish and instructor.
Should be taken prior to teaching in RGRLL Department. With consent of program director and language coordinator, course can be taken either concurrently with teaching assignment or at upper division level.

603. Theory and Practice of Literary Translation (3)
Prerequisite: Graduate standing.
This course is both a seminar on the theory of literary translation and a workshop where translations-in-progress are shared, revised and refined. The course provides deep immersion in the theory and practice of translation with a focus on translating into English.
Letter grade only (A-F).

604. Cultures, Politics and Markets in Contact (3)
Prerequisite: Graduate standing or consent of graduate advisor.
In-depth study of the interdependency of cultures, markets and politics especially in Germany, Italy, Spain and Spanish-speaking countries, and France and French-speaking countries. Students are exposed to both theoretical and practical approaches to the topic.
Letter grade only (A-F).

605. Cultures, Migrations, and Human Experience in Contemporary Transnational Cinema (3)
Prerequisite: Graduate standing or consent of graduate advisor.
Graduate course focusing on issues of identity within a global context, viewed mainly through the lens of trans-national cinemas. Other media will also be examined, as needed: advertising, social media in English, newspaper articles and videos.
Letter grade only (A-F).

606. Cultures and the Modern Metropolis (3)
Prerequisite: Graduate standing or consent of graduate advisor.
Study of selected major industrial and post-industrial metropolitan centers from the 19th to the 21st Century and their impact on the development of national cultures.
Letter grade only (A-F).
Arabic Courses (ARAB)

101A. Fundamentals of Arabic (4)
Prerequisite/Corequisite: Any Foundation course.
Introduction to fundamental skills of speaking, oral comprehension, reading, and writing. For those who are beginning the study of Arabic or who have had one year of high school Arabic.
For non-native speakers only. Not open to heritage speakers or native speakers of Arabic.

101B. Fundamentals of Arabic (4)
Prerequisite/Corequisite: ARAB 101A or two years of high school Arabic or equivalent. Any Foundation course.
Fundamental skills of speaking, oral comprehension, reading and writing.
For non-native speakers only. Not open to heritage speakers or native speakers of Arabic.

201A. Intermediate Arabic (4)
Prerequisite: ARAB 101B or three years of high school Arabic or equivalent. Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading, and writing skills.
For non-native speakers only. Not open to heritage speakers or native speakers of Arabic.

201B. Intermediate Arabic (4)
Prerequisite: ARAB 201A or four years of high school Arabic or equivalent. Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading, and writing skills.
For non-native speakers only. Not open to heritage speakers or native speakers of Arabic.

Portuguese Courses (PORT)

100. Fundamentals of Portuguese (6)
Prerequisite/Corequisite: Any Foundation course.
Two semesters of fundamental Portuguese are covered in one semester in this intensive hybrid (blended) course. Not open to heritage or native speakers of Portuguese. Not open to speakers who have completed Portuguese 101A or Portuguese 101B.
(4 hrs. in class, 2 hrs. online)

200. Intermediate Portuguese (6)
Prerequisite: Completion of Portuguese 100 or minimum or 2 semesters of college Portuguese. Any foundation course.
Two semesters of fundamental Portuguese are covered in one semester in this intensive hybrid (blended) course.
Not open to heritage or native speakers of Portuguese. (4 hours in class; 2 hours online)
RUSSIAN
College of Liberal Arts
Department of Romance, German, Russian Languages and Literatures

Department Chair: Markus Muller
Program Director: Harold K. Schefski
RGRLL Language Coordinator: Cedric Oliva
Single Subject Coordinator for L.O.T.E.: Cynthia Leathers

Department Office: Academic Services, Room 309
Telephone: (562) 985-4317
http://www.cla.csulb.edu/departments/rgrll/

Faculty:
Harold K. Schefski
Alessandro Russo

Administrative Support Coordinator: Alessandro Russo

Students desiring information should contact the department office for referral to one of the faculty advisors.

Career Possibilities

Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Minor in Russian

As the relations between the United States and post-Soviet Russia continue to develop, students should no longer think of Russian Studies solely as a defensive tool (i.e., for employment with agencies such as CIA, NSA, FBI, etc.), but also as a potential instrument for promoting world peace through commerce (e.g., joint ventures) and communication (e.g., Peace Corps and teaching English in Russia). With these diverse ends in mind, the Minor in Russian allows students at CSULB to acquire a strategic language and a specialization in an important region and diverse culture. The Minor in Russian is 21 units and is available to any non-Russian major.

Take all the following prerequisites:

RUSS 100 Fundamentals of Russian (6)
Prerequisite/Corequisite: Any Foundation course.

RUSS 200 Intermediate Russian (6)
Prerequisite: Completion of RUSS 100 or a minimum of 3 years of high school Russian.
Corequisite: Any Foundation course.

Take an additional 9 units from the following upper-division course work: RUSS 310, RUSS 410, RUSS 428, RUSS 499, GEOG 318, HIST 341A, HIST 341B.

Courses (RUSS)

LOWER DIVISION

100. Fundamentals of Russian (6)
Prerequisite/Corequisite: Any Foundation course.
Two semesters of fundamental Russian are covered in one semester in this intensive hybrid (blended) course.
Not open to heritage or native speakers of Russian. Not open to students who have completed RUSS 101B. (4 hrs. in class, 2 hrs. online)

200. Intermediate Russian (6)
Prerequisites: RUSS 100 or a minimum of 3 years of high-school Russian.
Prerequisite/Corequisite: Any Foundation course.
Two semesters of Intermediate Russian are covered in one semester in this intensive hybrid (blended) course.
Not open to heritage or native speakers of Russian. Not open to students who have completed RUSS 201A or RUSS 201B. (4 hrs. in class, 2 hrs. online)

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

310. Russian Literature in English (3)
Prerequisites: GE Foundation requirements, and any course in literature or European history.
Taught in English, this course examines the major themes of Russian life as seen through the literature of the nineteenth and twentieth centuries

312. Advanced Russian (3)
Required background or experience. Ability to read general material in Russian and to translate non-technical material into the language. Extensive reading of Russian writings, review of grammatical principles, and a general consolidation of the four language skills: reading, oral comprehension, composition, and conversation

314. Russian Conversation (3)
Prerequisite: Upper-division standing in Russian or consent of instructor.
Intended to meet specific, everyday situations and to provide help to those who intend to use Russian for travel, work, or classroom instruction

399. Directed Studies in Russian Language (1-3)
Prerequisites: Consent of instructor.
Independent study undertaken under the supervision of a faculty member. A Directed Studies course designed to meet the individual needs of students.
Letter grade only (A-F).

410. Introduction to Russian Civilization (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examination of the characteristic features of Russian culture with special attention to the study of art, architecture, folklore, music, poetry and religion.
428. Russian Cinema (3)
Prerequisite: Upper-division standing.
Focuses on the Socio-political and aesthetic aspects of Russian Cinema, delineating the following periods: Soviet Silent Cinema, Stalinist Cinema, Cinema under the Thaw, Cinema under Brezhnev, and Contemporary Cinema.
Letter grade only (A-F). Same course as FEA 458. Not open for credit to students with credit in FEA 458. (2 hrs sem, 2 hrs activity)

499. Directed Studies in Russian (1-3)
Prerequisites: Senior standing, consent of instructor.
Readings in areas of mutual interest to student and instructor that are not a part of any regular course. Written report or project may be required.
SCHOOL OF SOCIAL WORK
College of Health and Human Services

Director: Nancy Meyer-Adams
Graduate Program Coordinator: James Ferreira
Associate Director of Undergraduate Programs/Undergraduate Advisor: Lisa Jennings (562) 985-8629
Associate Directors of:
Admissions: Lisa Fascia (562) 985-2108
Field Education: Rebecca Sander (562) 985-8178
Distance Education: Marilyn Potts (562) 985-5183
Admissions Office: (562) 985-5654
School Office: SSPA, Room 161
Telephone / FAX: (562) 985-4616 / 985-5514
Faculty: Paul Abels (Emeritus), Jan Black (Emerita), Jolae Brocato, Stephan Buckingham, Ruth Chambers, Kenneth Chau (Emeritus), Rashida Crutchfield, Agathi Glezakos (Emerita), Catherine C. Goodman (Emerita), Jean M. Granger (Emerita), Yolanda Green, Marrissa Hansen, Lisa Jennings, Dan Jimenez (Emeritus), Mimi Kim, Christine Kleinpeter, Brian Lam, Cheryl Lee, Isaiah C. Lee (Emeritus), Kristin Lopez, Rebecca Lopez (Emerita), Nancy Meyer-Adams, Christian Molidor, Chikako Nagai, Julie O’Donnell, John Oliver (Emeritus), Eileen Mayers Pasztor, Marilyn Potts, Molly Ranney, Susan Rice (Emerita), Janaki Santhiveeran, Phillip Tan, Thomas Alex Washington, Steve Wilson
Assistant to the Director: Ann Radzicki, (562) 985-1878
Full-time Field Faculty: Venetta Campbell, Tom Crowe (Emeritus), James Ferreira, Michael Foster, Judy Green, Marian Klemek (Emerita), Stacey Peyer, Saaná Polk, Kathleen Porter, Joy Rubin, Rebecca Sander, Susan Salas
Students desiring information should contact the numbers listed above. Program applications (BASW, MSW) are available on the School’s website (www.csulb.edu/social-work).

Career Possibilities
Social Worker • Hospital Discharge Planner • Services Eligibility Worker • Psychiatric Social Worker • Probation or Parole Officer • Delinquency Prevention Program Worker • Medical Social Worker • School Social Worker • Child Welfare Caseworker • Community Organization Administrator • Health Care Administrator • Director of Social Services • Researcher • Organization Administrator • Health Care Administrator • Researcher • Organization Administrator • Health Care Administrator • Employment Program Supervisor • Industrial Social Worker • Health Educator and Hospice Services Coordinator • Case Management • Gerontological Social Work • Community Organizer • Social Policy Analyst (For more information, see www.careers.csulb.edu.)

Introduction
The vision of the School of Social Work is to be California’s most innovative and student-centered School of Social Work; a place where academic excellence, ethics, diversity, and the pursuit of social justice are embraced by faculty and students to enhance the lives of vulnerable and oppressed populations. Our mission is to educate and graduate diverse, ethical, competent social work students who are able to think critically and use evidence-based practice approaches to effectively serve culturally-diverse, vulnerable individuals, families, and communities in a wide variety of practice areas as practitioners, leaders, and social justice advocates. In addition, the School will engage in collaborative, community-based research that will enhance the wellbeing of vulnerable populations and disadvantaged communities, improve service delivery systems, and contribute to social work knowledge, and provide meaningful service to the community and the profession through the development of ongoing relationships with grassroots community leaders, community-based, non-profit organizations, governmental organizations, and foundations.

The BASW and MSW programs are accredited by the Council on Social Work Education (Council on Social Work Education, Commission on Accreditation, 1701 Duke Street, Suite 200, Alexandria, VA 22314, 703-683-8080). The School, University and Council on Social Work Education regulations do not permit the substitution of life or work experience for curriculum or degree requirements.

Undergraduate Programs

Bachelor of Arts in Social Work (120 units)
The School of Social Work offers, in conjunction with the general education requirements, a professional program leading to a Bachelor of Arts in Social Work (BASW). The goals of the BASW program are to prepare students for entry level, professional, generalist social work practice and for graduate social work education, including advanced standing. Students learn to practice as professional social workers with persons and groups representing the range of human diversity and with systems of all sizes (individuals, families, groups, communities, and institutions). Students have the option to take the major courses in a daytime sequence or an evening sequence.

Social Work majors should consider taking courses as electives or for fulfillment of general education requirements in any of the ethnic studies disciplines, women’s studies, sociology, anthropology, human development, and gerontology programs in the Colleges of Health and Human Services and Liberal Arts. The School of Social Work can make recommendations concerning those courses which would be most useful to students interested in acquiring broader information closely allied to professional social work practice.

Admission Requirements

Admission Under Impaction - Fall Only
Social Work is now considered to be a highly impacted major. Admission to the Social Work program takes place in the fall semester only. Refer to the following website for additional criteria: http://www.csulb.edu/depts/enrollment/admissions/index.html.
**Admission Under Impaction for Continuing Students**

Students who indicate an interest in the Social Work major when they enter as freshmen will be assigned a pre-social work major code. Acceptance into the pre-major by the University does not imply or assure subsequent acceptance into the major by the School of Social Work. Students who are not accepted into the major cannot continue as pre-social work majors. Social Work is now considered to be a “highly impacted major” (see above).

**Admission Under Impaction for Transfer Students**

Students must be eligible for admission to the University as transfer students and must apply for admission to the University no later than November 30 for admission the following fall. Students who are not admitted to the major will not be admitted to the University. Social Work is now considered to be a “highly impacted major” (see above).

**Additional Application Procedures**

Applicants to the BASW program must submit a separate program application packet to the School of Social Work by the beginning of March for the upcoming fall semester. The application includes statements of biographical and educational background and a description of community and/or social work experience. In addition, each applicant must submit two reference forms (one academic and one professional reference). Eligible applicants will be selected for admission on a space-available basis based on review of the entire application packet. Download the BASW Information Booklet for detailed admissions information.

Explore the School of Social Work BASW Admissions website (http://www.csulb.edu/colleges/chhs/departments/social-work/bachelor-of-arts/) for more information on this major.

**Prerequisite Requirements**

To be considered for admission to the Social Work major, all applicants must demonstrate the following:

- Minimum lower division preparation (grade of C or better required):
  - Major preparation courses (with a minimum cumulative GPA of 2.5):
    - BIOL 205 - Human Biology
    - PSY 100 - Introductory Psychology
    - HDEV 190 - Elementary Statistics in Social and Behavioral Sciences; or STAT 108 - Statistics for Everyday Life; or PSY 110 - Introductory Statistics; or SOC 170 - Elementary Statistics; or another course in elementary statistics
  - Required General Education courses not covered by major preparation courses:
    - Written Communication
    - Oral Communication
    - Critical Thinking
    - Mathematics if Statistics course taken above is not GE approved

It is highly recommended that students who are interested in the social work major focus on additional social science courses in their GE preparation. These courses can include but are not limited to: Sociology courses (such as SOC 100, SOC 142), Anthropology courses (such as ANTH 120), and Human Development courses.

**Graduation Requirements**

1. Complete the requirements for General Education
2. Complete the prerequisite requirements (see above)
3. Complete the major course requirements by taking each of the following courses:
   - SW 220 Introduction to Social Welfare (3)
   - SW 221 Introduction to Social Welfare Practicum (3)
   - SW 331 Human Behavior and Social Environment: Young Adulthood Through Old Age (3)
   - SW 340 Generalist Social Work Practice (3)
   - SW 341 Social Work Practicum (3)
   - SW 440 Generalist SW Practice with Groups (3)
   - SW 441 Generalist SW Practice with Communities and Institutions (3)
   - SW 442 Generalist Social Work Practice with Individuals/Families (3)
   - SW 465 Research Methods in Social Work (3)
   - SW 495A Field Experience in Social Work I (3)
   - SW 495B Field Experience in Social Work II (3)

4. Complete the required major courses in the following sequence:
   - First Level (fall): SW 220, SW 221, SW 330, SW 351
   - Second Level (spring): SW 331, SW 340, SW 341, SW 350
   - Third Level (fall): SW 440, SW 442, SW 495A
   - Fourth Level (spring): SW 441, SW 465, SW 495B

5. Complete Field Education requirements:
   - The field sequence has an integral role in the BASW curriculum, providing an opportunity for students to apply social work knowledge and practice skills in an agency-based educationally-focused internship. In the junior year, students complete an 80-hour practicum (SW 341) at a
community agency (8 hours/week for 10 weeks). Students complete 450 hours of field placement (SW 495A/B) in their senior year for which they earn 6 academic units. Students complete 16 hours per week in an assigned agency placement and attend a weekly seminar on campus. This must include either two 8-hour weekdays or one 8-hour weekday and two 4-hour weekday blocks (Monday - Friday daytime hours). Students are placed in a variety of agencies in the surrounding communities, and the School of Social Work’s field faculty selects the most appropriate field placement site for students. Criminal background checks and health screenings may be required for field placements. 6. Fulfill the Graduation Writing Assessment Requirement (GWAR)

7. Complete Abnormal Psychology by the end of the junior year

8. Meet all grade requirements:

   All Social Work courses must be completed with a grade no lower than a "C" in classroom courses or a "CR" for practicum or field experience courses. If a student earns a grade lower than a "C" in a classroom course or an "NC" in a practicum or field experience course, the student must repeat the course. All courses must be taken in sequence, therefore, a student cannot move forward in the Social Work program until each course has been successfully completed. All practicum or field experience courses must be taken concurrently with direct generalist practice courses.

CalSWEC BASW Stipend Program

California Social Work Education Center (CalSWEC) is a unique partnership between social work education and the publicly supported child welfare agencies. A goal of the CalSWEC program is to recruit and prepare a diverse group of social workers for careers in public child welfare. CalSWEC provides financial support to BASW students in exchange for a commitment to work in a public child welfare agency after graduation. The intent of the program is to strengthen and enhance the quality of practice by professionally trained and educated public child welfare social workers.

The IV-E stipends provide support for full-time students in their senior year enrolled in the BASW program. A CalSWEC reimbursement program is available for part-time students currently employed with the County Social Services department that provides child-welfare or assistance benefits eligibility functions. All part-time applicants must provide a letter of support from their agency administrator/director. Financial support for awarded part-time students will include actual cost of full tuition and fees, book costs as well as a travel allowance.

Application Process

Students must first be admitted into the BASW program. Students are required to submit a CalSWEC application. The application is supplemented with various questions designed to ascertain their interest and level of commitment to a career in public child welfare. Once accepted into the program students must undergo pre-screening for county employment, including fingerprinting and participation in the criminal clearance process as well as a psychological and/or medical exam. The student is required to sign a contract to secure full-time employment in a public child welfare agency after graduation.

Priority is given to applicants representing diverse population groups currently served by child welfare agencies in California. Fluency in a high demand language is also given priority. Years of service and other child welfare experience also weigh significantly into the selection process. Students in the program must be U.S. citizens or have a permanent visa.

An Awards Committee, made up of representatives of the CSULB School of Social Work and representatives of public child welfare agencies from counties surrounding the University, will review and finalize selection of candidates to whom the award will be offered.

Requirements

Students participating in the program must meet all the following criteria:

1. Successful admission to the BASW major;
2. Maintain a C (2.0) average;
3. Attendance at mandatory seminars/trainings on specialized topics;
4. Have a valid driver’s license and secure use of a car as required for field internship;
5. Undergo pre-screening for county employment;
6. Complete physical and psychological examinations required by agency listed in the affiliation agreement;
7. Fulfill work commitment upon graduation; students sign a contract to render one year of continuous and satisfactory full-time employment in a California public child welfare agency;
8. Students must reimburse CalSWEC if they are unable to successfully complete any of the program requirements.

Graduate Programs

Master of Social Work

The School of Social Work offers a professional program culminating in a Master’s degree in Social Work. Our goal is to prepare students to enter professional, multicultural social work practice. Students learn to practice as professional social workers with persons and groups representing the range of human diversity and with all size systems (individuals, families, groups, communities and institutions). In addition, students are prepared for advanced, specialized practice in one of the following concentrations: Child and Family Wellbeing, Adulthood and Aging, or Integrated Health.

The MSW Program emphasizes ecological and systems perspectives which focus on the fit and interactions of a person or system in relation to the various environments likely to be encountered. Within these perspectives, knowledge, values, and skills are used in a change-oriented process within a multicultural context to help individuals and social systems achieve improved quality of life and social participation, including advocacy for just institutions and equitable access to opportunities and
The MSW curriculum prepares students to:
1. Recognize that the experiential and evolving developmental process may produce a specific and unique set of ethnic and cultural characteristics in each person and group;
2. Incorporate significant aspects of multiculturalism, and understand, appreciate, and accept ethnic and cultural diversity in their practice;
3. Advocate for persons to keep their ethnic and cultural lifestyles, languages, and traditions while simultaneously facilitating the adaptation and integration of diverse values and customs of local, regional, national, and international groups;
4. Engage in evaluation of practice, development of evidence-based practice skills, and strengthen knowledge and skills in research methods and practice; and
5. Recognize the components of social work supervision, consultation and administration and be prepared to engage in those roles.

Program Plans

The School of Social Work offers three program plans for the completion of the MSW degree: 2-Year, 3-Year, and an Advanced Standing option. In addition, the School of Social Work offers a distance education option that follows the 3-year program plan.

Distance Education

The MSW program is also offered at off-campus locations throughout the state. Current distance education sites are in the Sonoma County and Ventura County areas. Courses are taught using face-to-face instruction, as well as interactive television and web-based instructional support. The distance education MSW is offered using a 3-year program plan in the Child and Family Wellbeing concentration. Students attend courses on Saturdays and complete field education requirements during the second and third academic years of the program. The part-time CalSWEC Child Welfare Stipend program is available to qualified distance education students.

Concentrations

The Master of Social Work degree offers opportunity for study in three areas of concentration: Child and Family Wellbeing, Adulthood and Aging, and Integrated Health. Students designate their choice of concentration during the foundation coursework. Advanced Standing Program students are offered admission to a specific concentration. The second-year courses and field placement will be determined by this choice of concentration. Program stipend recipients and students who choose to complete the Pupil Personnel Services Credential are required to choose a specific concentration (refer to those sections for more information).

Child and Family Wellbeing Concentration

The Child and Family Wellbeing concentration prepares students to use strength-based and evidence-based approaches to promote positive child and family functioning across diverse populations. Through coursework and field placements, students will acquire and enhance their skills to effectively engage, assess and intervene with children and families both preventively and with those experiencing challenges. Students will also gain knowledge of the policies most salient to the lives of children and families and skills to effectively influence such policies. This concentration provides a solid framework for students interested in working in child protective services, schools and other public agencies or community-based non-profits.

Adulthood and Aging Concentration

The Adulthood and Aging concentration prepares students to use strength-based and evidence-based approaches to promote positive adult, older adult, and family functioning across diverse populations. Through coursework and field placements, students will acquire and enhance their skills to effectively engage, assess, and intervene with adults and older adults. Students will gain knowledge of the unique psychosocial needs facing adults, older adults, and their families. Students will examine adulthood and the aging processes from multiple perspectives: biomedical, psychological, socioeconomic, spiritual and cultural while examining contemporary trends that are shaping aging policy, practice, and theory. This concentration provides a solid framework for students interested in working in the areas of adult protective services, supportive services for family caregivers, Alzheimer’s and dementia care services, hospice services, the prison system and community corrections, promotion of healthy aging, long-term care, and health care collaborations.

Integrated Health Concentration

The Integrated Health concentration prepares students to use strength-based and evidence-based approaches to meet the changing needs of people from diverse populations with physical, behavioral health, and substance use challenges. Through coursework and field placements, students will acquire and enhance their skills to effectively engage, assess, and intervene with individuals who face chronic diseases and co-occurring conditions of mental health challenges and/or substance use. Students will learn to utilize prevention and brief intervention models critical to integrated care and how to work effectively on an interdisciplinary team. Students will learn how evidence-based practice, along with recovery-oriented and strengths-based care philosophies, can foster changes in practice settings and policies. This concentration provides a solid framework for students interested in working to deliver services in outpatient or primary care facilities, community-based behavioral health agencies, hospitals, and acute, chronic and long-term care settings.

Admission to Master of Social Work (MSW) Program

Students are admitted by University Enrollment Services to the MSW Program for the fall semester each year. Prospective students should apply directly to the University and then to the School of Social Work. International students must also apply to the Center for International Education (http://www.ccpe.csulb.edu/international/default.aspx). Receipt of applications by the School begins the first
Application Deadlines

Applicants for the MSW program must apply to the University and submit their application packet to the School of Social Work by the deadline designated on the Graduate Studies website (http://www.csulb.edu/divisions/aa/grad/) for admission to the MSW program the following fall semester. Please refer to the School of Social Work MSW Admissions website for more information (http://www.csulb.edu/colleges/chhs/departments/social-work/master-of-social-work/).

Admission Requirements

Prospective applicants to the MSW program must meet the following admission criteria:

1. A bachelor's degree and be eligible for admission to graduate status at CSULB.
2. Satisfactory academic achievement as evidenced by a cumulative undergraduate GPA of 2.5 or above on a 4.0 scale.
3. Quality of work, internship, and volunteer experience as evaluated by faculty. This evaluation will be based on the applicant's resume, Personal and Professional Statement, references, and the length and relevance of Social Work and Social Work-related experience.
4. Completion of a prerequisite course in elementary statistics with a grade of "C" or better.
5. Submission of a complete School of Social Work MSW application packet which includes the following:
   - Completed MSW admission application form
   - Three MSW Reference Forms (a combination of academic and professional sources)
   - Resume inclusive of work, internship, and volunteer experience
   - Personal and Professional Statement
   - Elementary Statistics prerequisite syllabus

Application packets that do not contain all of the materials listed above will be considered incomplete and will not be evaluated for admission decisions. Moreover, application packets must be fully assembled by the applicant prior to submission.

6. Preadmission interviews may be required by the School of Social Work faculty.

Admission to MSW Advanced Standing Program

Students who have a 3.0 cumulative GPA and hold an undergraduate degree in social work may be conditionally accepted to the MSW Advanced Standing program. Upon successful completion of an intensive Summer Bridge program (see below), the foundation courses (30 units) will be waived and students will be advanced to candidacy and begin the second year of the 2-year MSW program. Admission to the Advanced Standing program is conditional until all Summer Bridge modules have been successfully completed.

Additional Admission Criteria for Advanced Standing Program

In addition to the admission requirements listed above, applicants must meet the following requirements to be considered for the Advanced Standing program:

- Completion (within the last five years) of a bachelor's degree from a Social Work program that is accredited by the Council on Social Work Education at the time of the applicant's graduation.
- A cumulative undergraduate GPA of 3.0 or above on a 4.0 scale.
- Submission of a reference form from the applicant's field instructor/field supervisor or field liaison or the Field Director/Coordinator of the applicant's BSW/BASW program, a reference form from the applicant's Social Work Academic Advisor or Social Work (BSW/BASW) professor whose course the applicant has completed or is taking at the time of application, and a reference form from a professional source.

Waiver of Foundation Coursework for Advanced Standing Students

The Master of Social Work degree is based upon a common body of knowledge. Students who have earned a bachelor's degree in social work from a CSWE-accredited undergraduate social work program within the last five years (with a GPA of 3.0 or higher) should have mastered the body of knowledge contained in the foundation courses of the MSW program. Students admitted to the Advanced Standing program will receive a waiver of the foundation courses (30 units) if they successfully complete the Summer Bridge program prior to entering the MSW program. The Summer Bridge program includes modules from the following areas: research, micro and macro practice, human behavior and the social environment, policy, technology, and field education. The Summer Bridge field placement includes 160 hours (16 hours per week). Students, therefore, have a provisional admission to the School until they have successfully completed the Summer Bridge program. When they successfully complete the Summer Bridge modules and field placement, the School of Social Work waives the foundation courses (30 units) and the student enters the second year of the MSW Program in the Fall semester. Students are immediately Advanced to Candidacy upon receiving the waiver. The foundation courses that are waived are: SW 500, SW 503A, SW 503B, SW 505, SW 570, SW 592, SW 594A, SW 594B, SW 596A, and SW 596B.

Students for whom the foundation courses are waived are not eligible to apply for the Geriatric Social Work Education Consortium (GSWEC) stipend.

MSW Program Requirements

Advancement to Candidacy

MSW students must maintain a minimum GPA of 3.0 on all courses taken subsequent to admission. In addition, students must maintain a cumulative GPA of 3.0 in all courses required for the degree. A student will be eligible for advancement to candidacy for the degree after successfully completing 6 units of graduate level courses in Social Work. All students must demonstrate competency in writing skills. Students must meet the Graduation Writing Assessment Requirement (GWAR) requirement prior to advancement to candidacy.
Course Load

The California State University, Long Beach requirement for full-time status as a graduate student is 9 weighted units. Students in the 3-year MSW program must take at least 4 semesters of at least 3 courses or 9 units. Students in the 2-year or Advanced Standing MSW program must take an overload of 6 units for 4 semesters or 15 units a semester.

Academic Units

The Master of Social Work program requires the completion of 60 semester units. Fifty-one (51) units of required courses and nine (9) units of scheduled School electives must be taken to complete the MSW degree. Stipend programs and the Pupil Personnel Services Credential require completion of a specific 3-unit elective (refer to those sections for more information).

Required Courses for MSW Program

Sixty (60) units of graduate coursework are required:

- Students must complete all of the following foundation courses (30 units):
  - SW 500 Foundation Social Work Micro Practice Skills and Interventions (3)
    - Prerequisites: None.
  - SW 503A Human Behavior and the Social Environment: Focus on Prenatal through Adolescence (3)
    - Prerequisites: None.
  - SW 503B Human Behavior and the Social Environment: Focus on Young Adulthood through Late Life (3)
    - Prerequisites: SW 503A.
  - SW 505 Foundation Social Policy: Addressing Oppression through Social Justice (3)
    - Prerequisites: None.
  - SW 570 Foundation Social Work Practice: Skills and Interventions with Groups (3)
    - Prerequisites: SW 500. Corequisites: SW 596A or SW 596B.
  - SW 592 Foundation Social Work Macro Practice Skills and Interventions (3)
    - Corequisites: SW 596A or SW 596B.
  - SW 594A Research Methods in Social Work I (3)
    - Prerequisites: None.
  - SW 594B Research Methods in Social Work II (3)
    - Prerequisites: SW 594A.
  - SW 596A Foundation Field Education I (3)
    - Corequisites: SW 500 or SW 570.
  - SW 596B Foundation Field Education II (3)
    - Prerequisites: SW 500 and SW 596A. Corequisites: SW 570 or SW 592.

- Students must complete 30 units of advanced coursework which includes:
  - SW 605 Advanced Social Policy: Analysis, Advocacy & Practice (3)
    - Prerequisites: SW 505.
  - SW 670 Social Work Leadership and Management (3)
    - Corequisites: SW 680B.
  - SW 680A Advanced Field Education I (3)
    - Prerequisites: SW 596A and SW 596B. Corequisites: SW 620 or SW 630 or SW 650.
  - SW 680B Advanced Field Education II (3)
    - Prerequisites: SW 680A. Corequisites: SW 670.

Complete one (1) of the following advanced practice courses (3 units) within the designated concentration:

- SW 620 Advanced Social Work Practice: Child and Family Wellbeing (3)
  - Prerequisites: SW 500, SW 570 & SW 592. Corequisites: SW 680A.
- SW 630 Advanced Social Work Practice: Adulthood and Aging (3)
  - Prerequisites: SW 500, SW 570 & SW 592. Corequisites: SW 680A.
- SW 650 Advanced Social Work Practice: Integrated Health (3)
  - Prerequisites: SW 500, SW 570 & SW 592. Corequisites: SW 680A.

Complete three (3) 600-level elective courses (9 units total) from the following list of courses:

- SW 643 Social Work Practice within Child Welfare Services (3)
  - Prerequisites: SW 503A and SW 503B.
- SW 662 Legal Issues in Social Work Practice (3)
  - Prerequisites: SW 503A.
- SW 663 Assessment and Treatment of Alcohol and Substance Use Disorders (3)
  - Prerequisites: SW 503A.
- SW 665 School Social Work (3)
  - Prerequisites: SW 503A.
- SW 675 Social Work Practice with Death, Dying and Loss (3)
  - Prerequisites: SW 503A.
- SW 677 Social Work Practice in Mental Health Services (3)
  - Prerequisites: SW 503A.
- SW 678 Play Therapy with Children, Adolescents and Their Families (3)
  - Prerequisites: SW 500 and SW 503A.
- SW 679 Psychopathology: Assessment and Treatment in Social Work Practice (3)
  - Prerequisites: SW 503A and SW 503B.
- SW 683 Brief Treatment (3)
  - Prerequisites: SW 503A.
- SW 690 Selected Topics in Graduate Social Work (3)
  - Prerequisites: Consent of school.
- SW 691 Non-Violent Conflict Resolution (3)
  - Prerequisites: SW 503A.
- SW 692 Spirituality in Social Work Practice (3)
  - Prerequisites: SW 503A.

Complete one of the following culminating requirements (6 units) in the final year of the program:

- Thesis/Project I and II (SW 698A and SW 699A)
- Applied Social Work Project: Part I and Part II (SW 698C and SW 699C)

Sequence of Required Courses

The MSW Program is taken in one of the following four sequences:

- **Plan A: (two years)**
  - Term 1 - SW 500, SW 503A, SW 505, SW 594A, SW 596A (Fall)
  - Term 2 - SW 503B, SW 570, SW 592, SW 594B, SW 596B (Spring)
• Term 3 - SW 620 or SW 630 or SW 650, SW 680A, SW 698A/C, TWO 600-level electives (Fall)
• Term 4 - SW 605, SW 670, SW 680B, SW 699A/C, 600-level elective (Spring)

**Plan B: Advanced Standing**

Summer Bridge Module includes:
- Fieldwork - 16 hours per week for 10 weeks (160 hours total) plus 2 hours of seminar per week
- Human Behavior & Social Environment
- Policy
- Research
- Practice (Micro & Macro)
- Technology

**Second Year Coursework:**
- SW 620 or SW 630 or SW 650, SW 680A, SW 698A/C, TWO 600-level electives (Fall)
- SW 605, SW 670, SW 680B, SW 699A/C, SW 600 level elective (Spring)

**Plan C: (three years)**
- Term 1 - SW 503A, SW 505 (Fall)
- Term 2 - SW 503B, SW 594A (Spring)
- Term 3 - SW 500, SW 594B (Summer)
- Term 4 - SW 570, SW 596A, SW 600-level elective (Fall)
- Term 5 - SW 592, SW 596B, SW 600-level elective (Spring)
- Term 6 - SW 605, 600-level elective (Summer)
- Term 7 - SW 620 or SW 630 or SW 650, SW 680A, SW 698A/C (Fall)
- Term 8 - SW 670, SW 680B, SW 699A/C (Spring)

**Distance Education** (Child and Family Wellbeing concentration only): (three years)
- Term 1 - SW 503A, SW 505 (Fall)
- Term 2 - SW 503B, SW 594A (Spring)
- Term 3 - SW 500, SW 594B (Summer)
- Term 4 - SW 570, SW 596A, SW 600-level elective (Fall)
- Term 5 - SW 592, SW 596B, SW 600-level elective (Spring)
- Term 6 - SW 605, 600-level elective (Summer)
- Term 7 - SW 620, SW 680A, SW 698A/C (Fall)
- Term 8 - SW 670, SW 680B, SW 699A/C (Spring)

**Field Education**

The field education sequence has an integral role in the MSW curriculum. The experience offers an opportunity for students to integrate and apply theoretical knowledge and social work practice and intervention skills in a community agency setting under the supervision of a qualified field instructor. A variety of agencies within the surrounding counties are utilized, reflecting the diverse settings in which social workers are employed. University field faculty select the most appropriate field placement site for students.

Each student has two field placements and concurrent enrollment in practice courses during the course of study. Each placement involves 500 hours of internship in a community agency setting and attendance and participation in an integrated field seminar that meets weekly on campus. The field education sequence encompasses a total of 1000 hours, for which 12 units of academic credit are given. The academic year schedule begins in September and continues through mid-May.

Fieldwork includes attendance in a field seminar as well as internship in the community. Students complete 16 hours per week. This must include either two 8-hour weekdays or one 8-hour weekday and two 4-hour weekday blocks. No weekend placements are available. Students admitted to the Advanced Standing program complete one field education placement for a total of 660 hours that begins in June and continues through mid-May.

Students who are employed in social service agencies may request that their agency be evaluated as a site for the second year field internship only. The agency must be able to meet all criteria established by the School of Social Work to ensure the educational focus of field education and provide a significantly different experience than the student's current job duties. Evaluation of field placement sites and approval to utilize an agency of employment as a field site will be completed by the field faculty.

The School of Social Work will reject an applicant or disqualify an enrolled student whose record of academic achievement or performance in field education does not meet the minimum standards of the profession.

**Stipend and Credential Opportunities for MSW Students**

**CalSWEC MSW Stipend Programs**

The California Social Work Education Center (CalSWEC) is a partnership between the schools of social work, public human service agencies, and other related professional organizations that facilitates the integration of education and practice to assure effective, culturally competent service delivery to the people of California.

**CalSWEC Child Welfare**

The CalSWEC Child Welfare program is available to qualified graduate students who are interested in pursuing a social work career in the child welfare field. Interested candidates must complete an application process.

**Full-Time CalSWEC Child Welfare Stipend Program**

This stipend provides for two years of support for students in the 2-year MSW program and one year of support for students in the Advanced Standing MSW program. The student signs a contract to secure full-time employment in a California public child welfare agency for two years post graduation but is expected to remain in public child welfare employment for longer than this minimum period. Once accepted into the program, students must undergo pre-screening for county employment including fingerprinting, as well as psychological and/or medical exams and participation in the criminal clearance process.
Part-Time CalSWEC Child Welfare Stipend Program

Students eligible to apply for the part-time CalSWEC reimbursement program must be employees of the State or County Social Services department that provides the child welfare or assistance benefits eligibility functions. All 3-year MSW applicants must provide a letter of support from their agency administrator/director. Financial support for admitted students will include: tuition and fees, book costs and a travel allowance. Students participating in the program sign a contract to render two years of full-time employment in their home public child welfare agency after graduation.

Requirements for Los Angeles County Department of Mental Health Stipend Program (Full-time and Part-time)

Students participating in the program must meet all of the following criteria:

1. Complete and graduate from the MSW Program in the Child and Family Wellbeing concentration
2. Maintain a "B" (3.0) average
3. Have a valid driver's license, current automobile insurance, and secure the use of a car as required by fieldwork
4. Successfully complete all of the required courses including the child welfare elective
5. Successfully complete a public child welfare field internship placement
6. Attend selected workshops or annual seminars on issues related to child welfare

Students must reimburse CalSWEC if they are unable to successfully complete any of the program requirements.

Los Angeles County Department of Mental Health Stipend Program

The LA County Department of Mental Health stipend program is for graduate students who are interested in pursuing a social work career in the mental health field and are willing to make a commitment to work full-time in an LA County mental health agency or a county contracted agency after they have received their MSW degrees. Interested candidates must complete an application process.

Requirements for Los Angeles County Department of Mental Health Stipend Program

Students participating in the program must meet all of the following criteria:

1. Sign a contract to work full-time in an LA County mental health agency or a county contracted agency for a minimum of one year immediately after graduation
2. Complete and graduate from the MSW Program in the Integrated Health concentration within the required timelines established for each program model
3. Successfully complete all of the required courses including the approved mental health elective
4. Successfully complete a mental health field placement
5. Attend selected workshops or annual seminars on issues related to public mental health services and the California Mental Health Services Act (MHSA)
6. Maintain a "B" (3.0) average
7. Receive a security clearance/Livescan to be placed in an internship and be employed in an LA County mental health agency or a county contracted agency
8. Students must reimburse LA County DMH if they are unable to successfully complete any of the program requirements.

University Consortium for Children and Families (UCCF)

The University Consortium for Children and Families (UCCF) is a specialized training program in public child welfare available in the MSW program. The University Consortium for Children and Families Training Project is a collaborative endeavor between the Los Angeles County Department of Children and Family Services (DCFS) and the graduate programs of social work at CSULB, UCLA, USC, CSULA, CSUN, CSUDH, and APU. The overall goal of this collaborative project is to increase the professional skills and knowledge of Los Angeles County public child welfare workers. The UCCF Training Project at CSULB is designed to prepare social work student interns in the most innovative and current programs at designated DCFS Regional Offices. The stipends are available for one year for students enrolled in the 2-year or 3-year MSW program. Students may apply for the second year of field placement. Students who work at DCFS or are currently (or have been) CalSWEC students are not eligible. Interested candidates must complete an application process.

Requirements for University Consortium for Children and Families (UCCF)

Students accepted into the program must:

1. Sign a contract to secure full-time employment with the Los Angeles County Department of Children and Family Services for one year post graduation but are expected to remain in public child welfare employment for longer than this minimum period
2. Have a valid driver's license, current automobile insurance, and secure the use of a car as required by the field placement
3. Complete pre-screening for county employment including Livescan and physical and psychological examinations
4. Successfully complete one year of a field internship in the UCCF/DCFS placement
5. Complete designated specialized training seminars
6. Successfully complete the child welfare elective
7. Maintain a "B" (3.0) average
8. Complete and graduate from the MSW Program in the Child and Family Wellbeing concentration within the required timelines established for each program model

Students are responsible for payback of the stipend if they are unable to successfully complete any of the requirements of the program.

Geriatric Social Work Education Consortium (GSWEC)

The Geriatric Social Work Leadership Internship provides specialized geriatric training and stipends for students in the Adulthood and Aging concentration...
who have satisfactorily completed their first year of field internship. The GSWEC Leadership Internship is a program of the Partners in Care Foundation (PCF) and was initially funded by grants from the John A. Hartford and Archstone Foundations. The PCF collaborates with the departments and schools of social work of CSULB, CSULA, CSUN, CSUDH, Azusa-Pacific, CSUF, USC, and UCLA to provide this unique training opportunity. Graduate Interns are placed at various comprehensive social service agencies throughout Los Angeles County where didactic leaning and practice interventions are combined to train the interns to meet the challenges of geriatric social work in the 21st century. Interested candidates must complete an application process.


The California Commission on Teacher Credentialing issues the Pupil Personnel Services Credential (PPSC). The School of Social Work, in collaboration with the College of Education, offers the combined School Social Work and Child Welfare and Attendance Specializations of the PPS Credential within the context of the Master of Social Work (MSW) degree. The PPS Credential in School Social Work and Child Welfare and Attendance authorizes the holder to be employed in the State of California as a School Social Worker and/or a Child Welfare and Attendance Specialist. The credential covers pre-kindergarten through 12th grade in public and other schools requiring the credential.

Requirements for the Pupil Personnel Services Credential (PPSC)

- Successful completion of all of the requirements for the 60 unit Master of Social Work (MSW) degree within the Child and Family Wellbeing concentration
- Completion of SW 665 "School Social Work" as one of the required electives within the 60 unit MSW Program, taken either prior to or concurrently with a school social work field placement
- Successful completion of four required School Social Work PPSC seminars covering specialized topics
- Demonstrated knowledge in the following areas of pupil personnel services, as defined in the Commission on Teacher Credentialing Standards: techniques for facilitating individual growth and development to achieve academic success; socio-cultural influences that affect pupils in a school setting; problem prevention and early intervention; consultation services; learning theory and psychological education; coordination and development of services; legal enablements and constraints; referral and utilization of services; human assessment as direct services to pupils; social interventions; consultation coordination and development of services; referral, utilization, involvement and use of community resources; social research and services based on research; code of professional ethics; attendance laws and the rights of minors; and skills using attendance laws and assessment skills
- Successful completion of 600 clock hours of field practice in the second year of field education, demonstrating all of the required skills and knowledge areas, in an approved PPSC site, under the supervision of an experienced MSW level practitioner who holds a PPS Credential in school social work.
- Supervised hours of field practice will include at least 100 hours in each of two settings (elementary, middle and/or high school), offer experience in service delivery with populations representing ethnic diversity, and cover both school social work and child welfare and attendance competencies and standards.
  - Completion of required application and forms from California Commission on Teacher Credentialing, including fingerprints, and a Certificate of Clearance
  - Completion of required health screenings
  - Pass three sections of the C-BEST Examination
  - Certification of program completion and demonstrated competence by the PPSC Program Coordinator in the School of Social Work

Courses (S W)

LOWER DIVISION

220. Introduction to Social Welfare (3)
Prerequisite: GE Foundation requirements.
Offers an understanding of social welfare, and the knowledge, values, and skills essential to social work practice. It examines historical and philosophical perspectives including cultural, economic, political, and social forces.
Letter grade only (A-F).

221. Introduction to Social Welfare Practicum (3)
Prerequisite: Consent of instructor. Corequisite: SW 220.
This course focuses on experiential learning and is designed to enhance the integration of social work theory and principles with practice application. Includes opportunities for information gathering about community agencies and the role of social workers in those agencies.
Open to social work majors only. Credit/No Credit grading only. Course fee may be required.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

330. Human Behavior and Social Environment: Birth through Adolescence (3)
Prerequisites: GE Foundation requirements.
Multi-dimensional development from conception through adolescence is explored by examining expectations, resources and barriers presented by mainstream society. Influences of culture, ethnicity, family systems, socioeconomic status, sexism and racism are assessed for their impact on healthy child development.
Letter grade only (A-F).
31. Human Behavior and Social Environment: Young Adulthood through Old Age (3)
Prerequisites: GE Foundation requirements.
Multi-dimensional development in adulthood is explored by examining expectations, resources and barriers presented by mainstream society. Influences of culture, ethnicity, family systems, socioeconomic status, sexism and racism are assessed for their impact on healthy adult development.
Letter grade only (A-F).

340. Generalist Social Work Practice (3)
Prerequisites: SW 220, SW 221, SW 330, and SW 351.
Corequisite: SW 341.
Social work practice as a helping process with all size systems. Social work knowledge, ethics, values, principles, professional relationships, interviewing and beginning assessment and intervention phases are examined. The activities of the social worker in resolution of psychosocial problems.
Open to social work majors only. Letter grade only (A-F).

341. Social Work Practicum (3)
Corequisites: SW 331, SW 340, and SW 350.
Supervised practicum in an applied social service agency or allied setting for a minimum of 80 hours (8 hours per week for 10 weeks). Social work field practice includes interviewing, assessment, and intervention activities.
Credit/No Credit grading only. Open to social work majors only. Not open for credit to students with credit in SW 340A. Course fee may be required.

350. Law, Court Decisions, and Policy Practice (3)
Prerequisites: GE Foundation requirements and SW 351.
Exploration of the intersection between social work and legal systems. Examination of forensic social work practice, policies and court cases. Policy practice, skill building for work with diverse populations among different settings and ethical aspects of professional practice are emphasized.
Letter grade only (A-F).

351. Social Policy: Formulation and Analysis (3)
Prerequisites: GE Foundation requirements.
Policy formulation and analysis related to social welfare institutions and major social welfare policies and programs. Current values and issues in social welfare policy.
Letter grade only (A-F).

440. Generalist Social Work Practice with Groups (3)
Prerequisites: SW 331, SW 340, SW 341. Corequisite: SW 495A.
Adaptation of generalist frameworks of social work practice to generalist group approaches. Analysis of dynamics, theories, and principles underlying group practice. Programs, practice techniques, and roles involved with groups.
Open to social work majors only. Letter grade only (A-F).

441. Generalist Social Work Practice with Communities and Institutions (3)
Prerequisites: SW 331, SW 340, SW 341, SW 351. Corequisite: SW W 495B.
Adaptation of generalist frameworks of social work practice to generalist approaches to community and institutional applications. Analysis of theories and principles underlying community practice. Adaptation of theories and activities to organizational contexts. Techniques and activities applicable to communities and neighborhoods.
Open to social work majors only. Letter grade only (A-F).

442. Generalist Social Work Practice with Individuals and Families (3)
Prerequisites: SW 331, SW 340, SW 341. Corequisite: SW 495A.
Adaptation of generalist frameworks of social work practice to generalist practice with individuals and families. Theories, techniques, activities, and role of social workers; differential approaches to study, assessment, intervention, and helping processes.
Open to social work majors only. Letter grade only (A-F).

Prerequisites: SW 440, SW 442 and one course in elementary statistics.
Introduction to research methods in social work with an emphasis on the evaluation of social work interventions and agency programs.
Open to social work majors only. Letter grade only (A-F).

490. Selected Topics in Social Work (1-4)
Open to social work majors only.
Topics of special interest in social work for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

495A. Field Experience in Social Work I (3)
Prerequisites: SW 330, SW 331, SW 340, SW 341, SW 350, SW 351.
Corequisite: SW 440 and SW 442.
Open to senior social work majors only. First of two semesters with supervised practice in social work agency.
Credit/No Credit grading only. (Seminar 2 hours, Clinical Process 1 hour. Two hours weekly field seminar on campus and 16 hours in agency placement required.) Course fee may be required.

495B. Field Experience in Social Work II (3)
Prerequisites: SW 442 and SW 495A.
Corequisites: SW 441
Open to senior social work majors only. Second of two semesters with supervised practice in social work agency.
Credit/No Credit grading only. (Seminar 2 hours, Clinical Process 1 hour. Two hours weekly field seminar on campus and 16 hours in agency placement required.) Course fee may be required.

499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study of special topics under supervision of a faculty member.
Open to social work majors only. Letter grade only (A-F).

GRADUATE LEVEL

500. Foundation Social Work Micro Practice Skills and Interventions (3)
Provides basic knowledge and skills for interventions with children, adults, older adults and families in the context of generalist practice. Emphasis is on engagement, assessment, and evidence-based interventions with a focus on multicultural perspectives.
Letter grade only (A-F).

503A. Human Behavior and the Social Environment: Focus on Prenatal through Adolescence (3)
Provides an examination of human behavior and development utilizing a bio-psycho-social-spiritual perspective. Theoretical perspectives on development within the social environment from perinatal through late adolescence are critically reviewed for bias and potential for multicultural application.
Letter grade only (A-F).
503B. Human Behavior and the Social Environment: Focus on Young Adulthood through Late Life (3)
Prerequisite: SW 503A.
Provides an examination of human behavior and development utilizing a bio-psycho-social-spiritual perspective. Theoretical perspectives on development within the social environment from young adulthood through end of life are critically reviewed for bias and potential for multicultural application.
Letter grade only (A-F).

505. Foundation Social Policy: Addressing Oppression through Social Justice (3)
Focuses on the critical analysis of policies which includes socio-economic, political and global factors influencing the U.S. social welfare system. Societal values and structural impediments influencing formation, implementation and evaluation of policies are emphasized using a multicultural framework.
Letter grade only (A-F).

570. Foundation Social Work Practice: Skills and Interventions with Groups (3)
Prerequisite: SW 500.
Corequisite: SW 596A or SW 596B.
Focuses on intervention techniques with treatment and task groups across the lifespan. The course will examine all aspects of working with groups including planning, facilitating, analyzing, and evaluating different groups.
Letter grade only (A-F).

580. Selected Topics in Social Work (3)
Prerequisite: Consent of instructor.
Letter grade only (A-F). May be repeated to a maximum of 6 units for majors and 9 units for non-majors with different topics. Topics announced in the Schedule of Classes.

592. Foundation Social Work Macro Practice Skills and Interventions (3)
Corequisite: SW 596A or SW 596B.
Focuses on the acquisition and application of knowledge and skills for macro practice. History, methods, theories, and socio-political determinants are emphasized. Explores implications for diverse communities; examines the relationship between professional values and ethical dimensions within community practice.
Letter grade only (A-F).

594A. Research Methods in Social Work I (3)
Focuses on the evidence-based research process, including conceptualization of research problems, designs, sampling, measurement, and data collection. The emphases are on building skills for conducting culturally-focused social work research and evaluating findings critically.
Letter grade only (A-F).

594B. Research Methods in Social Work II (3)
Prerequisite: SW 594A.
Covers the application of research methods for evidence-based social work practice, including qualitative data analyses, quantitative statistical analyses, program evaluation, and preparation of reports for dissemination, with continued emphasis on the ability to conduct and critique culturally-focused research.
Letter grade only (A-F).

596A. Foundation Field Education I (3)
Corequisite: SW 500 or SW 570
First of two semesters of supervised agency practice. Develops basic skills with individuals, families, groups, and communities. Includes weekly integrative seminar which utilizes group process to support practice competencies, professional development, self-awareness, ethics, and problem solving in a multicultural context.

596B. Foundation Field Education II (3)
Prerequisites: SW 596A and SW 500
Corequisite: SW 570 or SW 592
Second of two semesters of supervised agency practice. Develops basic skills with individuals, families, groups, and communities. Includes weekly integrative seminar which utilizes group process to support practice competencies, professional development, self-awareness, ethics, and problem solving in a multicultural context.
Letter grade only (A-F).

599. Independent Study (1-3)
Prerequisites: Consent of School and instructor.
Independent study of special topics under supervision of a faculty member.
May be repeated to a maximum of 6 units. Letter grade only (A-F).

605. Advanced Social Policy: Analysis, Advocacy and Practice (3)
Prerequisite: SW 505
Focuses on an advanced understanding of key issues, concepts, and skills associated with policy reform. Students will learn how to apply various strategies, techniques and actions that can influence elected officials, policy makers, organizations and communities.
Letter grade only (A-F). Not open to students with credit in SW 682.

620. Advanced Social Work Practice: Child and Family Wellbeing (3)
Prerequisites: SW 500, SW 570, and SW 592.
Corequisite: SW 680A.
Advanced practice course that focuses on working with children and families. Emphasis is on evidenced-based intervention techniques and evolving perspectives of goals of social work practice. Multicultural perspectives on assessment and interventions will be examined.
Letter grade only (A-F).

630. Advanced Social Work Practice: Adulthood and Aging (3)
Prerequisites: SW 500, SW 570, and SW 592.
Corequisite: SW 680A.
Focuses on assessment and intervention with adults and older adults, while addressing the basic processes of aging. The course covers advanced practice models in relation to ecological systems and multicultural perspectives.
Letter grade only (A-F).

643. Social Work Practice within Child Welfare Services (3)
Prerequisite: SW 503A.
Covers child protective policies and practices, including adoption, family preservation, transitional age youth, foster, kinship, and group care, with focus on incorporating innovative service delivery, multicultural practice and federally mandated outcomes related to child safety, wellbeing and permanency.
Letter grade only (A-F).

650. Advanced Social Work Practice: Integrated Health (3)
Prerequisites: SW 500, SW 570, and SW 592.
Corequisite: SW 680A.
Advanced course in integrating behavioral health practice with primary care. The role of social workers, theories, models, and multicultural aspects are enhanced. Advanced engagement, assessment, intervention, implementation, and practice evaluation skills are developed.
Letter grade only (A-F).
62. Legal Issues in Social Work Practice (3)
Prerequisite: SW 503A.
Covers the legal systems affecting social work interventions and the role of social workers within those systems. Examines how laws and legal systems impact client populations. Legal research and resources, legal reasoning, and the court systems are examined.
Letter grade only (A-F).

63. Assessment and Treatment of Alcohol and Substance Use Disorders (3)
Prerequisite: SW 503A.
Focuses on clinical and policy issues significant for social work practice with individuals, family systems and the community. Alcohol and substance use is examined across the lifespan with a focus on multicultural and strengths-based practice.
Letter grade only (A-F).

65. School Social Work (3)
Prerequisite: SW 503A.
School social work practice emphasizes the home-school-community connection. School social workers intervene in multiple systems, providing support for students and families while bringing about change in school practices. Course content includes social work roles, education laws, evidence-based practice, and diversity.
Letter grade only (A-F).

67. Social Work Practice in Mental Health Services (3)
Prerequisite: SW 503A.
Focuses on social, economic and cultural factors as they affect social work practice in mental health services including the Recovery Paradigm and client-centered approaches that are in accordance with the California Mental Health Services Act (MHSA).
Letter grade only (A-F).

678. Play Therapy with Children, Adolescents and Their Families (3)
Prerequisites: SW 500 and SW 503A.
Explores the use of play therapy as a social work practice intervention. It focuses on the modality of play as a means of helping children, adolescents, and their families in a therapeutic setting.
Letter grade only (A-F).

679. Psychopathology: Assessment and Treatment in Social Work Practice (3)
Prerequisites: SW 503A and SW 503B.
Prepares students to assess and diagnose psychopathology using diagnostic tools such as the Diagnostic Statistical Manual of Mental Disorders (DSM). Ethical challenges presented in the use of these tools in social work practice will be addressed.
Letter grade only (A-F).

680A. Advanced Field Education I (3)
Prerequisite: SW 596A and SW 596B.
Corequisite: SW 620 or SW 630 or SW 650
First of two semesters of field placement in area of concentration. Seminar experience utilizes group process to develop advanced competencies. Emphasis is placed on case presentation, demonstration and evaluation of practice skills, supervision use, cultural responsiveness, and professional ethics.
Credit/No Credit grading only. (Seminar 1 hour, clinical process 2 hours. Two hours bi-weekly in field seminar and 16 hours in agency placement required) Course fee may be required.

680B. Advanced Field Education II (3)
Prerequisite: SW 680A.
Corequisite: SW 670
Continuation of concentration field placement. Seminar is facilitated by students with support from the instructor. Focus is on integration of graduate coursework and professional development within the context of multicultural practice. Content includes preparation for master’s level social work employment.
Credit/No Credit grading only. (Seminar 1 hour, clinical process 2 hours. Two hours bi-weekly in field seminar and 16 hours in agency placement required.) Course fee may be required.

683. Brief Treatment (3)
Prerequisite: SW 503A.
Covers the methodologies used in brief and/or time limited clinical treatment. Models of brief therapy, empirical research and diverse client populations are explored. Reviews ethnic, gender, and other issues related to the use of this treatment approach.
Letter grade only (A-F).

690. Selected Topics in Graduate Social Work (3)
Prerequisites: Consent of school.
Topics of special interest in social work selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

691. Non-Violent Conflict Resolution (3)
Prerequisite: SW 503A.
Designed to help students examine conflict, their own and others’ responses to conflict situations on the intrapersonal, interpersonal and community levels, and to learn to deal with conflict in a productive, non-violent manner.
Letter grade only (A-F).

692. Spirituality in Social Work Practice (3)
Prerequisite: SW 503A.
Examines issues pertaining to spiritually sensitive social work practice. The rich and diverse forms of spiritual expressions and religious and philosophical ideologies that may be espoused by clients are explored.
Letter grade only (A-F).

698A. Thesis or Project I (3)
Prerequisites: SW 594A, SW 594B. Completion of 30 MSW units with a minimum cumulative GPA of 3.0, and advancement to candidacy.
Under the direction of the Thesis/Project Advisor, the student completes a thesis/project proposal, instruments and IRB protocol (if applicable), and drafts literature review.
Letter grade only (A-F). A grade of "B" or better is required for successful completion.

698C. Applied Social Work Project: Part I (3)
Prerequisites: Completion of foundation coursework with a minimum cumulative GPA of 3.0, and advancement to candidacy.
This first course of a 2-semester sequence is a culminating experience incorporating analysis, synthesis, and evaluation of the MSW curriculum. Implementation of knowledge, skills, values, and practice methods related to all size systems is emphasized using a multicultural perspective.
Letter grade only (A-F). A grade of "B" or better is required for successful completion.

699A. Thesis or Project II (3)
Prerequisite: SW 698A.
Under the direction of the Thesis/Project Advisor, the student finalizes the literature review and completes the remaining chapters (typically, introduction, methodology, results, discussion and implications) of thesis/project.
Letter grade only (A-F). A grade of "B" or better is required for successful completion.

699C. Applied Social Work Project: Part II (3)
Prerequisites: SW 698C.
This second course of a 2-semester sequence is a continuation of a culminating experience incorporating analysis, synthesis, and evaluation of the curriculum. Implementation of knowledge, skills, values, and practice methods in all size systems is emphasized using a multicultural perspective.
Letter grade only (A-F). A grade of "B" or better is required for successful completion.
SCIENCE EDUCATION
College of Natural Sciences and Mathematics

Department Chair: Lisa Martin-Hansen
Department Office: Hall of Science (HSCI) 205
Telephone/FAX: (562) 985-4801/985-7164
Website: www.cnsm.csulb.edu/depts/scied

Faculty: Alan Colburn, Susan Gomez-Zwiep, Laura Henriques, Thomas Kelty, James Kisiel, Lisa Martin-Hansen, William Straits
Advisors:
Single Subject Science Credential: Tim Williamson
Graduate Advisor: Alan Colburn, James Kisiel
Administrative Support Coordinator: Natalia Mora

Introduction
The department maintains close ties with teachers, schools and informal science institutions in the greater Long Beach area. It undertakes projects aimed at pre-K through university students. From the Head Start on Science project which develops a "sense of wonder" and excitement preschool and Kindergarten children, their teachers and parents to outreach and professional development for inservice elementary and secondary teachers, and support for preservice teachers and informal science educators, the department hosts a wide variety of grants and projects impacting the entire preK-16 and informal science education community. The department sponsors the Young Scientists' Camp programs, research seminars and the Association of Future Science Educators (AFSE) which is student chapter of California Science Teachers Association/National Science Teachers Association.

Graduate Programs

Master of Science in Science Education
The M.S. in Science Education is designed primarily for credentialed K-12 teachers and experienced informal educators.

Application
Prospective graduate students in M.S. in Science Education, including CSULB graduates, must formally apply for admission to CSULB as described previously in this catalog and must also apply directly to the Department of Science Education. All applicants must submit the following documents directly to the department office:
1. Completed departmental application form, including personal statement. The application form is available in the Department of Science Education office and on the internet [http://www.scienceteaching.org, click on "Masters Info"].
2. Two confidential recommendation letters, sent under separate cover, including one from an administrator or supervisor at a school/institution where the applicant is (or was) employed.
Prospective graduate students must also receive a positive recommendation following an interview with graduate faculty.

Review by the Graduate Studies Committee
The Graduate Studies Committee will review all completed applications and recommend either accepting the applicant as a Classified or Conditionally Classified graduate student, or denying admission. All accepted students should contact the departmental graduate advisor before their first semester for advisement and orientation.

Classified Graduate Student
The Department of Science Education will recommend for admission as a Classified graduate student any applicant who has met all prerequisites and been accepted by the Graduate Studies Committee.

Conditionally Classified Graduate Student
An applicant who fails to meet the criteria for Classified admission to the department may be considered by the Graduate Studies Committee for admission as a Conditionally Classified graduate student. The Graduate Studies Committee will determine what deficiencies each applicant has and specify what the individual must do to make up those deficiencies. The applicant must make up all such deficiencies before attaining Classified status.

Admission to the Department Prerequisites
In addition to the prerequisites for entrance into CSULB as a graduate student stated in this Catalog, the Science Education department requires:
•   California Multiple Subject or science teaching credential, or the equivalent;
•   GPA of at least 3.0 for the last 60 units of study completed.
•   Those students participating in the informal science option may substitute one or more years experience working as an educator in an informal learning setting; a letter of support is required.

Option in Elementary and Middle School Science Education
This option is designed for teachers who are K-8 generalists. It may also be appropriate for Single Subject teachers interested in increasing the breadth of their scientific knowledge.

Program of Study
The Program of Study (30 units) includes successful completion of:
1. Take all the following Science Education core courses:
   SCED 550 Current Issues and Research in Science Education (3)
   Prerequisite: Admission to M.S. in Science Education program.
SCED 551 Science Teaching, Learning and Curriculum Models (3)  
Prerequisites: Admission to M.S. in Science Education program and SCED 550 or prior consent of instructor.

SCED 552 Nature of Science (3)  
Prerequisites: Admission to M.S. in Science Education program and SCED 550.

SCE 560 Science Education Research Methods (3)  
Prerequisites: Admission to the M.S. in Science Education Program.

SCED 697 Directed Research (1-3)  
Prerequisites: Consent of instructor and admission to M.S. in Science Education program.

2. Take all the following science courses:
   SCED 500 Life Science Applications for K-8 Teachers (3)  
   Prerequisites: Admission to M.S. in Science Education program; BIOL 200.

   SCED 501 Earth Sciences Applications for K-8 Teachers (3)  
   Prerequisites: Admission to the M.S. in Science Education program and GEOL 102+GEOL 104 or GEOL 106.

   SCED 502 Physical Science Applications for K-8 Teachers (3)  
   Prerequisites: Admission to M.S. in Science Education program; PHSC 112.

3. Take the following course:
   SCED 698 Thesis (1-3)  
   Prerequisites: Advancement to Candidacy for the M.S. in Science Education, 18 units of coursework required for M.S. Science Education completed, and consent of the chair of the thesis committee.

4. Take 3 elective units (chosen in consultation with advisor)  

**Option in Secondary Science Education**

This option is aimed at teachers with a Single Subject credential in Science. Graduate students complete 9 units of graduate work in a Science discipline.

**Program of Study**

The Program of Study (33 units) includes the successful completion of:

1. Take all the following Science Education core courses:
   SCED 550 Current Issues and Research in Science Education (3)  
   Prerequisite: Admission to M.S. in Science Education program.

   SCED 551 Science Teaching, Learning and Curriculum Models (3)  
   Prerequisites: Admission to M.S. in Science Education program and SCED 550 or prior consent of instructor.

   SCED 552 Nature of Science (3)  
   Prerequisites: Admission to M.S. in Science Education program and SCED 550.

   SCED 560 Science Education Research Methods (3)  
   Prerequisites: Admission to the M.S. in Science Education Program.

   SCED 697 Directed Research (1-3)  
   Prerequisites: Consent of instructor and admission to M.S. in Science Education program.

2. Take 9 units of graduate level science (chosen in consultation with advisor)

3. Take the following course:
   SCED 698 Thesis (1-3)  
   Prerequisites: Advancement to Candidacy for the M.S. in Science Education, 18 units of coursework required for M.S. Science Education completed, and consent of the chair of the thesis committee.

4. Take 3 elective units (chosen in consultation with advisor)  

**Option in Informal Science Education**

This option is aimed at educators currently working in non-classroom settings such as museums, zoos, and nature centers, as well as those charged with fostering the public understanding of science.

**Program of Study**

The Program of Study (33 units) includes the successful completion of:

1. Take all the following Science Education core courses:
   SCED 550 Current Issues and Research in Science Education (3)  
   Prerequisite: Admission to M.S. in Science Education program.

   SCED 551 Science Teaching, Learning and Curriculum Models (3)  
   Prerequisites: Admission to M.S. in Science Education program and SCED 550.

   SCED 552 Nature of Science (3)  
   Prerequisites: Admission to M.S. in Science Education program and SCED 550.

   SCED 553 Science Learning in Informal Settings (3)  
   Prerequisite: Admission to Science Education M.S. program; consent of instructor.

   SCED 560 Science Education Research Methods (3)  
   Prerequisites: Admission to the M.S. in Science Education Program.

   SCED 697 Directed Research (1-3)  
   Prerequisites: Consent of instructor and admission to M.S. in Science Education program.

2. Take 6 units of science courses from the following:
   SCED 500, SCED 501, SCED 502, or other graduate-level science courses chosen in consultation with an advisor

3. Take 3 units non-profit management or other related course from the following:
   REC 521, REC 528, or other courses in consultation with an advisor

4. Take 3 units elective, chosen in consultation with advisor

5. Take the following course:
   SCED 698 Thesis (1-3)  
   Prerequisites: Advancement to Candidacy for the M.S. in Science Education, 18 units of coursework required for M.S. Science Education completed, and consent of the chair of the thesis committee.

**Advancement to Candidacy**

1. A student must be designated as a Classified Student in good standing prior to advancing to candidacy.

2. A student must satisfy the general requirements of the University, including fulfilling the Graduation Writing Assessment Requirements (GWAR).

3. The student's M.S. program must be approved by a faculty graduate advisor, the department graduate advisor, the department chair, and the Associate Dean in the College of Natural Sciences and Mathematics or designee.

4. Advancement to candidacy may take place upon satisfactory completion of six units in the M.S. program. A student must have been advanced to candidacy before
Courses (SCED)

**Lower Division**

100. An Introduction to Scientific and Spatial Reasoning (3)
Course Description: Students develop essential and critical thinking skills that help them 'think outside of the box' and recognize the role of spatial reasoning, perception and creativity in the practices of science. Letter grade or credit/no credit. The course may not be repeated. (3 hours activity.)

**UPPER DIVISION**

401. A Process Approach to Science (3)
Prerequisite: BIOL 200; PHSC 112; GEOL 106, or both GEOL 102 and GEOL 104; all with a "C" or better grade.
Processes of science as they relate to life, earth, and physical sciences. Practical approaches to integration of science and engineering practices, disciplinary core ideas, and cross-cutting concepts of science integrated and modeled throughout the course for students.
Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

403. Integrated Science (3)
Prerequisites: All credential breadth requirements for the Single Subject Teaching Credential Program in Science, three-fourths of the credential specializations courses, and consent of instructor. Enrollment limited to students who intend to pursue a Single Subject Credential in Science.
Focuses on NGSS integration of science and engineering practices, disciplinary core ideas, and cross-cutting concepts of science. Requires presentations, discussions, critical evaluation by students on selected interdisciplinary topics in sciences, and fieldwork in integrated science assignments.
Letter grade only (A-F). (Lecture 3 hrs.)

404. The Nature of Science and Scientific Reasoning (3)
Prerequisites: Minimum of 9 units of science (introductory level or higher) consent of instructor.
Course introduces the nature of science – its history, philosophy, and sociology. Common misconceptions related to science practices and critical evaluation of scientific investigations (in research literature and popular media) are examined. Implications for science communication and teaching will be addressed.
Letter grade only (A-F). (Lecture 3 hrs.)

475. Teaching and Learning Science, K-8 (3)
Prerequisites: Admission to the Multiple Subject Credential Program. SCED 401 or a bachelor's degree.
Methods for teaching elementary school science. Development of sequenced, Common Core integrated, NGSS-based science lessons addressing the needs of all learners to be STEM ready.
Letter grade only (A-F). Course fee may be required. (Lec 2 hrs., activity 2 hrs.) 60 contact hours, however, actual contact hours vary as course is offered with an on-line distance component (see Schedule of Classes footnotes). 10 hours minimum of fieldwork in classrooms where at least 25% of students are classified as English learners, or concurrent enrollment in EDEL 482.

**GRADUATE LEVEL**

500. Life Science Applications for K-8 Teachers (3)
Prerequisites: Admission to M.S. in Science Education program; BIOL 200.
Emphasizes major themes and processes in life sciences, focusing on deepening understanding of concepts and approaches to teaching material in K-8. Approaches to developing/teaching inquiry-based/experiential learning units in biology modeled and integrated throughout course.
Letter grade only (A-F). (Seminar 3 hrs.)

501. Earth Sciences Applications for K-8 Teachers (3)
Prerequisites: Admission to the M.S. in Science Education program and GEOL 102+GEOL 104 or GEOL 106.
Investigates earth science topics with focus on deepening understanding of concepts and approaches to teaching material in K-8. Approaches to developing/teaching inquiry-based/experiential learning units in earth science modeled and integrated throughout course.
Letter grade only (A-F). (Seminar 3 hrs.)

502. Physical Science Applications for K-8 Teachers (3)
Prerequisites: Admission to M.S. in Science Education program; PHSC 112.
Investigates physical science topics with focus on deepening students' science understanding while showcasing applications of physical science for students' personal lives and their K-8 classrooms and schools.
Letter grade only (A-F). (Seminar 3 hrs.)

490A. Selected Topics in Science Education (1-3)
Prerequisite: Consent of instructor.
Topics in science education.
May be repeated to a maximum of 6 units with different topics in different semesters. (Lecture 1-3 hrs)

490B. Selected Topics in Life Science Education (1-3)
Prerequisite: Consent of instructor.
Topics in life science education.
May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F). (Lecture 1-3 hrs)

490C. Selected Topics in Earth/Space Science Education (1-3)
Prerequisite: Consent of instructor.
Topics in earth and space science education.
May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F). (Lecture 1-3 hrs)

490D. Selected Topics in Physical Science Education (1-3)
Prerequisite: Consent of instructor.
Topics in physical science education.
May be repeated to a maximum of 6 units with different topics in different semesters. Letter grade only (A-F). (Lecture 1-3 hrs)

496. Directed Studies in Science Education (1-3)
Prerequisites: Consent of instructor.
Supervised study of current topics in science education.
Letter grade only (A-F). May be repeated to a maximum of 3 units with different topics in different semesters.

490A. Selected Topics in Science Education (1-3)
550. Current Issues and Research in Science Education (3)
Prerequisite: Admission to M.S. in Science Education program.
SCED 550 is a core course in the M.S. in Science Education.
Introduces students to body of research and practical knowledge
shared by science education community from the early 1900s
through today (including recent reforms such as NGSS). Includes
choosing, studying, and discussing articles from science education
literature relevant to key issues in science education.
Letter grade only (A-F). (Seminar 3 hrs.)

551. Science Teaching, Learning and Curriculum Models (3)
Prerequisites: Admission to M.S. in Science Education program
and SCED 550 or prior consent of instructor.
Introduces students to professional literature about science
teaching and learning. Traces historical development of elementary/
secondary science curriculum models more specifically, and STEM
education efforts more broadly. Students examine role science and
education organizations played in reforming science curriculum
(including standards movements and NGSS), and analyze curricula
from variety of teaching/learning perspectives.
Letter grade only (A-F). (Seminar 3 hrs.)

552. Nature of Science (3)
Prerequisites: Admission to M.S. in Science Education program and
SCED 550.
A core course in the M.S. in Science Education. Looks at science
from historical, philosophical, psychological, and sociological
perspectives. Examines perceptions of science and scientists,
especially views of science in different cultures and times.
Discusses using these perspectives to teach students about nature
of science.
Letter grade only (A-F). (Seminar 3 hrs.)

553. Science Learning in Informal Settings (3)
Prerequisite: Admission to Science Education M.S. program;
SCED 553 is a core course required of all
Science Education M.S. candidates who have declared an option in
informal science learning.
Examines characteristics of non-school learning settings (e.g.,
science museums, zoos, aquaria, nature centers, homes) and
how they promote (or hinder) scientific understanding. Multiple
theoretical perspectives examined. Authentic evaluation/research
project with local institution.
Letter grade only (A-F). (Seminar 3 hrs.)

560. Science Education Research Methods (3)
Prerequisites: Admission to the M.S. in Science Education program.
Examination and application of science education research
methodology including various types of qualitative and quantitative
methods, research designs, sampling methods, inferential statistics
and hypothesis testing, interpretation and use of science education
research instruments and development of a research proposal.
Letter grade only (A-F). (Seminar 3 hrs.)

580. Introduction to College Science Teaching - 1 (1)
Prerequisite: Admission to Master’s-level program in CNSM.
Addresses the fundamentals of college science instruction with
an emphasis on immediate classroom application. Strategies for
active learning, student assessment, and teacher development are
introduced.
Letter grade only (A-F). (Seminar 1 hr)

590. Selected Topics in Science Education (1-3)
Prerequisite: Consent of instructor. (Undergraduates enroll in SCED
490; graduate students enroll in SCED 590).
Topics in Science Education. Course content will vary from section
to section.
May be repeated to a maximum of 6 units with different topics
in different semesters. Topics announced in the Schedule of
Classes. Letter grade only (A-F). (Seminar 1-3 hrs.)

697. Directed Research (1-3)
Prerequisites: Consent of instructor and admission to M.S. in
Science Education program.
Independent investigation of a research problem or directed
project, under the direction of a faculty member.
May be repeated to a maximum of 3 units with different topics in
the same semester. Letter grade only (A-F).

698. Thesis (1-3)
Prerequisites: Advancement to Candidacy for the M.S. in Science
Education, 18 units of coursework required for M.S. Science
Education completed, and consent of the chair of the thesis
committee.
Planning, preparation, and completion of the thesis project in
Science Education. Enrollment in more than 2 units in a given
semester requires departmental approval.
Letter grade only (A-F).
SINGLE SUBJECT TEACHER EDUCATION PROGRAM
College of Education

University Coordinator: Jared Stallones
Office: Teacher Preparation Advising Center (EED-67)
Telephone: (562) 985-5325
Website: www.ced.csulb.edu/single-subject

Assistant to the Coordinator: Helen Carcamo
Credential Advisors: Jessica Blague, Adriane Howze, Elodia Montano

Subject Area Coordinators:
Kathleen Keirn (English Education)
Cynthia Leathers (Languages Other Than English Education)
Vikki Bisorca (Health Science Education)
Laurie Gatlin (Art Education)
Tim Williamson (Science Education)
Tim Keirn (Social Science Education)
Dan Zanutto (Music Education)
Emyr Williams (Physical Education)
Angelo Segalla (Mathematics Education)

Introduction
The Single Subject Credential Program (SSCP) prepares university students to be teachers in California schools. A teacher with a Single Subject Credential is authorized to teach the specific subject(s) named on the credential in departmentalized schools. This is commonly done in California high schools and junior high schools. However, teachers authorized for single subject instruction may be assigned to teach any subject in their authorized fields at any grade level: pre-school, kindergarten and grades one through twelve; or in classes organized primarily for adults. At CSULB the program includes courses in the student's teaching subject area, in general secondary education (EDSE), and in subject specific education (EDSS). Program requirements are subject to change to align with changes in California Commission on Teacher Credentialing (CTC) regulations. For further program information visit www.ced.csulb.edu/single-subject.*

Single Subject Credential Program (code 100)
The Single Subject Credential Program is a 45 unit program of study comprised of one prerequisite course, four corequisite courses, four core courses, and the capstone student teaching experience and student teaching seminar. EDSS 300, the prerequisite course, must be taken prior to other EDSS and EDSE courses. The corequisites may be taken prior to or concurrent with EDSS 300, or the core courses. All course work must be completed prior to student teaching, except for the student teaching seminar which is taken concurrently with student teaching. Student teaching is a full teaching day, Monday through Friday, for approximately 20 weeks under the guidance of one or more cooperating teachers and a university supervisor.

Requirements
Prerequisite:
Take the following course:
EDSS 300A-S Introduction to Teaching (3)
Prerequisites: Advanced sophomore or junior standing.
(separate sections offered for each subject area)

Corequisites:
Take the following courses:
HSC 411B Health Science for Secondary Teachers (3)
Prerequisite: Upper-division standing. Corequisite: Current CPR Certification required.
EDSP 355B Collaborative Models of Inclusive Education (3)
Prerequisite: None

Take one of the following courses:
EDP 301 Child Development and Learning: A Cross-Cultural Perspective (3)
Prerequisites: None.
EDP 302 Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective (3)
Prerequisites: None.
EDP 305 Educational Psychology (3)
Prerequisites: None.

Take one of the following choices:
Level I technology course or state-approved exam

Candidates in the subject area programs can meet the computer technology requirement through the following courses: Art (ART 305), English (ENGL 337), Health Science (ETEC 444), LOTE (RGR 470), Mathematics (MTED 301), Music (EDSS 300M, EDSS 450M, EDSS 473), KIN (KIN 354), Science (EDSS 300C, EDSS 450C, EDSS 473), Social Science (ETEC 444).

Core Courses:
Take the following courses:
EDSE 435 United States Secondary Schools: Intercultural Education (3)
Prerequisite: EDSS 300 (A, C, D, F, G, M, N, P, or S); or admission to the Single Subject Credential Program; or consent of University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
EDSE 436 Curriculum, Instruction, Assessment and Classroom Management (3)
Prerequisite: EDSS 300 (A, C, D, F, G, M, N, P, or S); or admission to the Single Subject Credential Program; or consent of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
EDSE 457 Reading and Writing in the Secondary School (3)
Prerequisite: EDSS 300 (A, C, D, F, G, M, N, P, or S); or
admission to the Single Subject Credential Program; or consent of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

**EDSS 450A-S Curriculum and Methods (3)**
(separate sections offered for each subject area)
Prerequisites: Consult catalog text for matching prerequisite information.

**Capstone:**
EDSS 472 Student Teaching (5)
Corequisite: EDSS 473. Prerequisite: EDSS 450 (A, C, D, F, G, H, M, N, P, or S) and admission to the Single Subject Credential Program, or permission of the University Coordinator; submission of application to student teaching by the deadline (October 1 for Spring term; March 1 for Summer and Fall terms); demonstration of basic educational skills; character and identification clearance (fingerprint clearance); completion of all program course work; demonstration of subject matter competence; portfolio assessment in selected programs; approval for advancement to student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program. Student teaching must be completed in the subject that will be authorized on the candidate's credential.

EDSS 473A-Z Student Teaching Seminar (3)
(separate sections offered for each subject area)
Prerequisite: Admission to the Single Subject Credential Program, or consent of the Single Subject Credential Program University Coordinator; advanced to student teaching. Corequisite: EDSS 472.

or for interns
EDSS 572 Intern Student Teaching (5)
Corequisite: EDSS 473. Prerequisite: Admission to the Single Subject Intern Program; offer of intern teaching position from a cooperating school district; submission of application to student teach by the deadline (October 1 for Spring term; March 1 for Summer and Fall terms); demonstration of basic educational skills; character and identification clearance (fingerprint clearance); completion of all program course work; demonstration of subject matter competence; portfolio assessment in selected programs; approval for advancement to intern student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program.

EDSS 473A-Z Student Teaching Seminar (3)
(separate sections offered for each subject area)
Prerequisite: Admission to the Single Subject Credential Program, or consent of the Single Subject Credential Program University Coordinator; advanced to student teaching. Corequisite: EDSS 472.

All professional coursework for the credential must be completed within seven years of admission to the program.

In addition to professional preparation, all credential candidates must demonstrate subject matter competence by one of the following: A) completion of a CTC-approved subject matter program; B) passing scores on the CSET exam; C) transcript review. Candidates should confer as early as possible with the Credential Advisor in their subject area to develop an efficient program plan.

**Admission to the Program**

Before beginning the Single Subject Credential Program (SSCP), students should be admitted to the university. Apply for admission if you are A) a graduating senior at CSULB, B) transferring from another institution, or C) returning to the university after an absence of one or more semesters. Admission to the university does not constitute admission to the SSCP. Application to the program is normally made as part of the course requirements for EDSS 300. Students may take the EDSS 300 course once they have completed a minimum of 60 semester or 90 quarter units.

**Program Admission Requirements**

Admissions requirements are subject to change by the California Commission in Teacher Credentialing. Current requirements can be found at http://www.ced.csulb.edu/programs/single-subject-credential-program/admission-program.

**Preliminary Credential**

Successful completion of the Single Subject Credential Program leads to the Preliminary Credential, which is valid for five years.

**Credential Requirements**

In order to apply for a preliminary credential, candidates must:

1. Hold a bachelor's degree from an accredited institution.
2. Satisfy the U. S. Constitution requirement (POSC 100 or POSC 391 or exam or equivalent course from another institution).
3. Demonstrate basic educational skills.
5. Demonstrate subject matter competence.
6. Complete all prerequisite, corequisite, core and capstone courses with a "B" average and a minimum grade of "C". A minimum 3.0 grade point average must be maintained in all EDSS and EDSE courses. A minimum grade of "B" must be attained in EDSS 300 and EDSS 450.
8. Successfully complete student teaching and student teaching seminar.
9. Obtain a score of 3 or better on all 4 tasks in the state-mandated Teacher Performance Assessment (Cal TPA).

**Student Teaching**

Student Teaching is a full day (At least 5 class periods), full semester responsibility following the school district calendar (approximately 20 weeks). Students teach three classes which represent different topics or levels of the subject. The other two periods are for preparation and observation. The university determines the specific student teaching assignment from a wide variety of schools and teaching situations available in the program service area reflecting the region's diversity.

Advancement to Student Teaching is based upon a second thorough assessment of the candidate's qualifications. The process involves an evaluation of the applicant's file and an interview with faculty in the Single Subject Program. The criteria for advancement are as follows:

1. Potential for success in teaching, as indicated by successful leadership, teaching experience, or work experience.
2. Continuing motivation for and enthusiasm toward teaching, together with those dispositions believed essential for successful teaching. Evidence includes a strong
recommendation from the instructor of EDSS 450 and further recommendations from faculty who have worked with or have interviewed the student since the time of admission to the credential program.

3. Academic competence, overall and in the teaching major. The level of academic achievement of candidates is expected to be above average.

**Advancement to Student Teaching Requirements**

In order to advance to student teaching, candidates must:

1. Be a member in good standing of the Single Subject Credential Program.
2. Attain a GPA of 2.75 in the last 60 semester units, or 2.67 overall.
3. Successfully complete all program courses, except Student Teaching and Seminar.
4. Attain a minimum "B" grade point average in program courses, including prerequisites, corequisites and core courses, with no grade lower than "C." A minimum 3.0 grade point average must be maintained in all EDSS and EDSE courses. Completion of EDSS 300 and EDSS 450 with a minimum grade of "B."
5. Demonstrate TB clearance (clearance must be valid though completion of student teaching).
6. Demonstrate basic educational skills.
7. Demonstrate subject matter competence. CSET test takers must submit passing scores with their student teaching application. Course-takers must satisfy the subject matter mastery requirement prior to the first day of student teaching.
8. Provide proof of identity and character clearance (Certificate of Clearance)
9. Submit a student teaching application by October 1 or March 1 of the semester prior to student teaching.

**Student Teaching Application Process**

1. Student Teaching applications are available online for a limited period of time prior to the application deadline.
2. The application for Student Teaching is reviewed by the student's Subject Area Credential Advisor (SACA). The Credential Center evaluates transcripts. The SACA then makes a recommendation to the University Single Subject Credential Coordinator who takes final action. When approved, the student registers for student teaching. A priority system is used if sufficient funding is not available to allow all qualified applicants to enroll in student teaching.
3. A Certificate of Clearance must be on file in the Credential Center prior to the beginning of Student Teaching.

**Single Subject Internship**

The Internship Program provides an opportunity for qualified Single Subject Credential Program (SSCP) candidates to work as teachers of record while completing their preservice preparation. Internship positions are offered by school districts in consultation with the SSCP. An internship is an entry-level paid teaching position in a regular public secondary school classroom. The Intern Credential holder is an employee of the school district on a contractual basis and is subject to all district employment policies. Interns are also program students, subject to program requirements.

Interns carry considerable responsibility as the classroom teacher of record responsible for designing, developing, and implementing curriculum and instruction for a full load of classes for the length of the school year. In addition, they are expected to be fully participating members of the school faculty, including service on school committees, supervision of student activities, and attendance at school and district meetings and inservices. Only candidates who are truly ready for the responsibility and heavy workload should become interns. Candidates should consult with their Credential Advisor and the University SSCP Coordinator as they explore the possibility of doing an internship.

To be approved for an internship, candidates must meet the following requirements: be in good standing in the SSCP, be enrolled in at least one program course each semester, demonstrate basic educational skills, demonstrate subject matter competence (as determined by CTC subject matter requirements), have character clearance, be approved for advancement to student teaching, demonstrate relevant successful experience working with students, and show proof of meeting the U. S. Constitution requirement. The internship offer is made by the school district, and must be in the candidate’s teaching field. Interns cannot teach out of their field. Candidates must have the approval of their SACA and the approval of the University SSCP Coordinator. There must be a District/University Internship Agreement in place between the district and CSULB.

Upon completing all program requirements for advancement to student teaching, Interns use their teaching position as the "student teaching" experience. Interns must submit an application to student teach by the regular deadlines: October 1 for Spring and March 1 for Fall student teaching. Interns register for 15 units of Intern Student Teaching and 3 units of Student Teaching Seminar. Interns must have a minimum of two different class preparations as part of their teaching assignments. A University Supervisor observes the intern periodically during the term, conferences with the intern after site visits, and provides support. The school provides a Site Support Teacher who functions as the Intern's on-site mentor. Interns are evaluated on program evaluation forms that are based on the California Teaching Performance Expectations.

Intern Application Guidelines and application materials are available in the Teacher Preparation Advising Center (ED1-67). Late applications may not be approved until the following semester. Candidates should contact the SSCP Office for a list of districts with which the program has intern contractual agreements.

The Early Completion Intern Option allows qualified candidates in English, Math, and Science to challenge the course work portion of the internship program and demonstrate their pedagogical skills by passage of the Teaching Foundations Examination while serving as an intern. See an advisor in the Teacher Preparation Advising Center for details.

**Clear Credential**

The Preliminary credential is valid for five years from the date of issuance and is not renewable. During the first
five years of teaching, teachers earn the Clear Credential through their District-Sponsored Induction Program.

Petition Process

Appeals of program decisions or requests for policy waivers are made by filing a written appeal to the Single Subject Program Petition Committee. The Petition Committee reviews the written statement and supporting evidence. After the review, the Committee renders its final decision. Examples of petitionable policies are: the minimum grade point average required for program admission, completing all program courses prior to student teaching, and course equivalencies. Consult the SSCP Office for items not listed here. Students follow university policy to appeal a course final grade.

Single Subject Credential Program Majors

The subject matter programs listed below have been approved by the California Commission on Teacher Credentialing. Completion of a program as an undergraduate major (or as a returning graduate student) meets the subject matter competence requirement for the single subject teaching credential. With careful planning, it may be possible for undergraduates to complete the professional preparation (education) courses concurrent with the major, with the exception of student teaching and seminar (which may be done the first semester after graduation). Subject matter competence may also be demonstrated by passing the appropriate CSET exam. Candidates should consult the Credential Advisor in their area of interest to develop an efficient program plan.

Art Education (code 110)

Course requirements for demonstrating subject matter competence in Art are listed in the Art Department under Bachelor of Arts in Arts, Option in Art Education. Subject matter competence may be met through completion of 30 lower division units and 39 upper division units. Consult with the Single Subject Art Education Advisor for specific academic advisement and program information.

English Education (code 120)

Course requirements for demonstrating subject matter competence in English are listed in the English Department under Bachelor of Arts in English, Option in English Education. The English education subject matter waiver program is a 55 unit major with 43 core units and 12 breadth and perspective units. Consult with the Single Subject English Education Advisor for specific academic advisement and program information.

Health Science (code 130)

Course requirements for demonstrating subject matter competence in Health Science are listed in the Health Science Department under Bachelor of Science in Health Science, Option in School Health Education. Subject matter competence may be met through completion of 20 lower division units and 45 upper division units. Consult with the Single Subject Health Science Education Advisor for specific academic advisement and program information.

World Languages:
French (code 152)
German (code 153)
Italian (code 154)
Latin (code 156)
Spanish (code 158)

Course requirements for demonstrating subject matter competence in individual Languages Other Than English are listed under the Bachelor of Arts requirements in the appropriate department (French, German, Italian, Spanish: Romance, German and Russian Languages Dept.; Latin: Comparative World Literature and Classics Dept.). In each instance, the Bachelor of Arts degree leads to subject matter competence in the language. Consult with the Single Subject Languages Other than English Education Advisor for specific academic advisement and program information.

Mathematics Education (code 165)

Course requirements for demonstrating subject matter competence in Mathematics are listed in the Mathematics and Statistics Department under Bachelor of Science in Mathematics, Option in Mathematics Education. Subject matter competence may be met through completion of 30 lower units and 36 upper division units. Consult with the Single Subject Mathematics Education Advisor for specific academic advisement and program information.

Music Education (code 170)

Course requirements for demonstrating subject matter competence in Music are listed in the Music Department under Bachelor of Music, Option in Music Education. Subject matter competence may be met through completion of 70 units for both choral/vocal and instrumental options. Consult with the Single Subject Music Education Advisor for specific academic advisement and program information.

Physical Education (code 175)

Course requirements for demonstrating subject matter competence in Physical Education are listed in the Kinesiology Department under Bachelor of Arts in Kinesiology, Option in Elementary, Secondary, or Adapted Physical Education. Subject matter competence may be met through completion of 29 lower division units and 40 upper division units. Consult with the Single Subject Physical Education Advisor for specific academic advisement and program information.

Science Education:

Biological Sciences (code 184)
Chemistry (code 181)
Geosciences (code 182)
Physics (code 183)

Course requirements for demonstrating subject matter competence in Science are listed in the Science Education Department under Subject Matter Competence for the Single Subject Credential. Breadth and specialization units vary for the four science areas. Consult with the Single Subject Science Education Advisor for specific academic advisement and program information. The Science Subject Matter Program is being revised to meet new state
standards. When the revised program has been approved by the Commission on Teacher Credentialing, the new course requirements will be in effect and supersede current requirements.

**Social Science Education (code 185)**

**Behavioral Science, Economics, Geography, History, Political Science**

In order to demonstrate subject matter competence by course work for the Social Science teaching credential, students must complete 39 core units and 15 breadth and perspective units. Consult the Social Science Education Credential Advisor in the Department of History for program information.

**Single Subject Education Courses (EDSS)**

**UPPER DIVISION**

**300A-S. Introduction to Teaching (3)**

Prerequisite: Advanced sophomore or junior standing. Structure, organization, culture of schools; curriculum, instruction, assessment, classroom management; history and current status of the subject area; becoming a reflective professional. Submission of application to the Single Subject Credential Program (SSCP). "B" grade or better required for admission to the SSCP. First course in the professional education sequence of the SSCP. Students register for the section bearing the letter associated with their discipline from the list below.

45-hour directed fieldwork required. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters. (Lecture 3 hours)

A. Art  
B. Science  
C. Health Science (Fall)  
D. LOTE: Languages Other Than English  
E. English  
F. Mathematics  
G. Music (Spring)  
P. Physical Education  
Q. Social Science

**450A. Curriculum and Methods in Teaching Art (3)**

Prerequisite: EDSS 300A; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching art to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching. Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

**450C. Curriculum and Methods in Teaching Science (3)**

Prerequisite: EDSS 300C; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching science to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. (Lecture 2 hours, laboratory 1 hour + TBA) Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

**450D. Curriculum and Methods in Teaching Health Science (3)**

Prerequisite: EDSS 300D; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching health to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

**450F. Curriculum and Methods in Teaching Languages Other Than English (3)**

Prerequisite: EDSS 300F; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching world languages to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

**450G. Curriculum and Methods in Teaching English (3)**

Prerequisite: EDSS 300G; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching English to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

**450H. Curriculum and Methods in Teaching Home Economics (3)**

Prerequisite: Admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.

Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching home economics to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.
450N. Curriculum and Methods in Teaching Music (3) F
Prerequisite: EDSS 300N; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching music to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

450P. Curriculum and Methods in Teaching Physical Education (3)
Prerequisite: EDSS 300P; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator; current standard first aid/CPR certification; completion of all skill performance proficiencies with an overall score of 3.5. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching physical education to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

450S. Curriculum and Methods in Teaching Social Science (3)
Prerequisite: EDSS 300S; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Required prior to student teaching.
Objectives, curriculum, materials, instructional strategies, and assessment specific to teaching history and social science to diverse students. Reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks.
Fieldwork requirement. Course fee may be required. "B" grade or better required to advance to student teaching. Letter grade only (A-F). May be repeated to a maximum of 6 units.

472A,B,C. Student Teaching (5,5,5)
Corequisite: EDSS 473.
Prerequisite: Admission to the Single Subject Credential Program, or consent of the Single Subject Credential Program University Coordinator; advanced to student teaching.
Links theory to practice within the context of Teaching Performance Expectations during student teaching. Covers curriculum, instruction, assessment, classroom management, equity and access for all students. Prepares candidates for induction into the teaching profession.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
A. Art
C. Science
D. Health Science (Course fee may be required)
F. LOTE
G. English
M. Math
N. Music
P. Physical Education
S. Social Science
Z. Secondary Education

490. Selected Topics - Academic Subjects (1-3)
Prerequisite: Consent of instructor.
Selected secondary curriculum topics.
May be repeated to a maximum of 6 units with different topics; but only 6 units with a letter grade may be applied toward advanced degrees. Topics announced in the Schedule Of Classes.

497. Independent Study (1-3)
Prerequisites: Consent of instructor and Single Subject Program Coordinator.
Independent study undertaken under the supervision of a faculty member.
May be repeated to a maximum of 3 units.

GRADUATE LEVEL
572A,B,C. Intern Student Teaching (5,5,5)
Corequisite: EDSS 473.
Prerequisite: Admission to the Single Subject Intern Program; offer of intern teaching position from a cooperating school district; submission of application to student teach by the deadline (October 1 for Spring term; March 1 for Summer and Fall terms); passage of CBEST; character and identification clearance (fingerprint clearance); completion of all program course work; demonstration of subject matter competence; portfolio assessment required in selected programs; approval for advancement to student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program.
Use of the intern’s teaching position as student teaching. Must be done in the subject that is authorized on the intern’s credential. Interns must be approved by the program for contract positions in cooperating school districts.
Credit/No Credit grading only ("B" or "B" quality work required for credit). May be repeated to a maximum of 10 units. Course fee may be required.
 Secondary Education Courses (EDSE)

UPPER DIVISION

435. United States Secondary Schools: Intercultural Education (3)
Prerequisite: EDSS 300 (A, C, D, F, G,M, N, P, or S); or admission in the Single Subject Credential Program; or consent of University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

Critical reflection on multicultural education in a diverse society. Philosophy, history and sociology of education as fundamental to understanding contemporary secondary schools. Curriculum and student populations in the context of issues and controversies in education. Approved CLAD Certificate course (Domain 3).
Fifteen hour fieldwork requirement. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units.

436. Curriculum, Instruction, Assessment and Classroom Management (3)
Prerequisite: EDSS 300 (A, C, D, F, G,M, N, P, or S); or admission in the Single Subject Credential Program; or consent of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

Explores systematic instruction, theories of learning, curriculum development, teaching strategies, assessment and evaluation of student progress, classroom management and discipline, and establishing successful learning environments for all students.
Fifteen hour fieldwork requirement. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units.

457. Reading and Writing in the Secondary School (3)
Prerequisite: EDSS 300 (A, C, D, F, G,M, N, P, or S); or admission in the Single Subject Credential Program; or consent of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.

Emphasis on reading and writing assessment and instruction; textbook selection; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; English Language Development; the reading needs of less prepared, English language, and accelerated learners; and issues of diversity and equity.
Minimum fifteen hours of field work required. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units.
SOCILOGY
College of Liberal Arts

Department Chair: Kristine M. Zentgraf
Department Office: Psychology Building, Room 145
Telephone: (562) 985-4602
http://www.cla.csulb.edu/departments/sociology/
Faculty: Neilan Barnes, Carole Campbell, Michael Chavez, Norma Stoltz Chinchilla, Jeffrey Davis, Shelley T. Eriksen, J. William Gibson, Jan Haldipur, Gary Hytrek, Nancy Martin, Leakhena Nou, Steven Osuna, Varisa Patrapon, Oliver Wang, Jake Wilson, Sabrina Alimahomed-Wilson, Kerry Woodward, Kristine M. Zentgraf
Administrative Support Coordinators:
Kim Glick, Jacqueline Southern
Students desiring information should contact the department office for referral to the faculty advisor:
Undergraduate Advisors:
Nancy Martin, Kerry Woodward, Jake Wilson
Graduate Advisor: Kerry Woodward

Career Possibilities
Sociologist • Social Worker • Health Care Administrator • Community Organizer • School Counselor • Urban Planner • Personnel Manager • Statistician • Public Health Worker • College Student Service Worker • Lawyer • Lobbyist • City Planning Aide • Adoption Counselor • Market Researcher • Employment Interviewer • Management Trainee (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
Sociology courses are suitable for fulfilling general education or elective requirements for students of other majors.

Undergraduate Programs

Bachelor of Arts in Sociology (120 units)

Requirements
Lower Division (13 units):
Complete each of the following courses with grades of "C" or better:
SOC 100 Principles of Sociology (3)
Prerequisite/Corequisite: A GE Foundation course.
SOC 142 Social Trends and Problems (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1) or PSY 130 or equivalent. Corequisite: One Foundation Class.
SOC 170 Elementary Statistics (4)
Prerequisites: Eligible to take a General Education Mathematics Course.
SOC 270 Introduction to Research Methods (3)
Prerequisite: SOC 100 or SOC 142, SOC 170 or instructor consent.

Upper Division (minimum 31 units):
Core (16 units):
Complete the following course with a grade of “C” or better:
SOC 356 Classical Sociological Theory (3)
Prerequisite: SOC 100.
Complete the following courses:
SOC 355 Quantitative Methods of Social Research (4)
Prerequisites: SOC 100, SOC 170, and one upper division course in sociology.
SOC 357 Modern Sociological Theory (3)
Prerequisites: SOC 100, SOC 356 and one other upper division course in Sociology.
Complete one of the following courses:
SOC 420, SOC 427
Complete one of the following courses:
SOC 335, SOC 354
Complete nine units in one concentration.
Complete six units of electives from other upper-division courses in sociology.
Total credit for courses numbered 490 through 499 may not exceed twelve units. Completion of at least 51 semester units of college work is required before students will be accepted into upper division courses.
Department Recommendation: Lower division courses should be completed before upper division courses. Taking the courses in sequential order will allow students to gain maximum benefit from the curriculum.

Concentrations
Deviance and Social Control
SOC 342, SOC 345, SOC 354*, SOC 423, SOC 440, SOC 463, SOC 495
Interaction and Group Relations
SOC 320, SOC 325 (or WGSS 325), SOC 335*, SOC 340 (or CHLS 350), SOC 341 (or CHLS 352), SOC 345, SOC 346, SOC 354*, SOC 358, SOC 423, SOC 426, SOC 436, SOC 447, SOC 464, SOC 492, SOC 495; WGSS 401
Sociology Health and Medicine
SOC 350, SOC 354*, SOC 423, SOC 462, SOC 463, SOC 464, SOC 466, SOC 493, SOC 495; HSC 400
Research
Concentration is currently not available.
Social Change and Global Issues
SOC 346, SOC 350, SOC 354*, SOC 358, SOC 410, SOC 420*, SOC 427*, SOC 430, SOC 449, SOC 494, SOC 495; ANTH 307; I/ST 307 or I/ST 318; WGSS 401

*If not taken as one of the core courses
Honors in Sociology

Students may be admitted to Sociology Honors program (an option of the University Honors Program) when they have:

1. A minimum of three semesters remaining before graduation;
2. A minimum cumulative GPA of 3.2 overall and a minimum GPA of 3.5 in Sociology courses;
3. Completed the lower division courses required for the major (SOC 100, SOC 142, SOC 170) or have junior standing and a minimum of four sociology courses;
4. Submitted an application with one letter of recommendation from a faculty member.

To graduate with Honors in Sociology a student must:

1. Complete all regular requirements for the major in Sociology;
2. Complete 3 units of an Honors Selected Topics (SOC 487H or equivalent approved by the department honors advisor) and 6 units related to the Honors Thesis (SOC 488H and SOC 489H or equivalent 6 units accepted by the department honors advisor). These required 9 units may be in addition to general requirements for the major in sociology or may be counted as part of the concentration or elective units required for the regular Sociology BA degree. SOC 488H and SOC 489H are equivalent to UHP 496 and UHP 498;
3. Do one of the following: Present own original research paper for a student research competition, present such a paper at a professional meeting, or write a research paper that the department honors advisor agrees is of professional quality;
4. Serve as a Student Teaching Fellow (peer facilitator) for at least one undergraduate sociology course OR serve as a research intern under faculty supervision.

Students are strongly encouraged to:

1. Join Alpha Kappa Delta, the International Sociology Honor Society;
2. Engage in service to the department or the discipline of sociology.

Minor in Sociology

A minimum of 24 units which must include:

Lower Division:
- Take both of the following courses
  - SOC 100 Principles of Sociology (3)
  - SOC 142 Social Trends and Problems (3)

- Prerequisite/Corequisite: A GE Foundation course.
- Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1) or PSY 130 or equivalent. Corequisite: One Foundation Class.

Upper Division:
- Take the following:
  - SOC 335 Social Psychology (3)

- Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.

Take a minimum of 15 units selected from other upper division courses in sociology. Total credit for courses numbered 490 through 499 may not exceed 6 units.

Graduate Program

Master of Arts in Applied Sociology

This program's curriculum is designed to provide students with a strong theoretical and methodological foundation with specialization in one of the two thematic concentrations: Sociology of Health and Medicine; or Community Development and Social Change. Fieldwork placements provide direct and practical experience with local public and private agencies addressing community health and social justice issues.

The graduate coordinator serves as the general advisor for all entering graduate students. Upon admission, students will be assigned to a faculty member for advising and mentoring. Students can elect to keep this faculty member or, in consultation with the graduate coordinator, choose another faculty advisor. The faculty advisor is responsible for assisting students in writing a Plan of Study, which outlines how individual students will fulfill the requirements of the program. Faculty advisors will also assist the student in selecting her/his thesis committee (two additional faculty members). Graduate thesis committees must be formed after completing a minimum of 12 units and before a maximum of 21 units.

Students may view the general requirements of the University, the specific requirements of the department and information about the steps leading to the master's degree in sociology in this catalog.

Admission Procedures

Consideration for admission requires submission of a program application and university application. Submit all program application materials to the Department of Sociology in one complete package.

Prerequisites

1. A Bachelor’s degree with a major in Sociology, or related degree, and have earned a 3.0 GPA.
2. Completion of a minimum of one upper-division sociological theory course (equivalent to SOC 356 or SOC 357) and a research methods course (equivalent to SOC 355).
3. Students whose undergraduate work is deficient in sociology will be required to complete appropriate prerequisite courses. Course deficiencies will be determined by the Department's Graduate Committee after taking into account each student's background and goals. Prerequisite courses will not count toward credit in the M.A.
4. Official scores from the Graduate Record Examination.
5. Official transcripts.
6. Three letters of recommendation, including at least two from individuals well acquainted with the applicant’s academic ability.
7. A 3-4 page personal statement describing the student’s qualifications and reasons for wanting to pursue an Applied Sociology M.A. at CSULB.
8. Experience in community organizations is helpful, but not required.
Program Requirements

All students must complete a minimum of thirty (30) units of upper division and graduate level courses, of which twenty-four (24) must be at the 500/600 graduate level. A student’s program is outlined in the Plan of Study that must be developed in consultation with a sociology faculty advisor within the first 12 units at CSULB.

Requirements

1. Core Courses
   Take the following courses:
   - SOC 656 Seminar in Sociological Theory (3)
     Prerequisites: SOC 356, SOC 357 or equivalent or consent of instructor.
   - SOC 670 Sociological Practice (3)
     Prerequisites: SOC 656 and SOC 696, or their equivalents or consent of instructor.
   - SOC 696 Methods in Applied Social Research (3)
     Prerequisites: SOC 170, and SOC 355 or their equivalents or consent of instructor.

2. Concentration Area Courses (3 courses, 9 units) in one concentration area:
   - Sociology of Health and Medicine:
     Applicable courses include SOC 562, HCA 502, HSC 500, HSC 503, HSC 528, and HSC 625.
   - Community Development and Social Change:
     Applicable courses include SOC 536, SOC 540, PPA 525, PPA 610, PPA 660 and PPA 670.

3. Applied Skill Cluster (2 courses, 6 units): Applicable courses include ANTH 560, HSC 500, HSC 503, HSC 528, and HSC 625.

4. Internship (one course, 3 units): SOC 695.

5. Capstone Course (1 course, 3 units): SOC 698.

Advancement to Candidacy

1. Students must satisfy the general requirements of the University for advancement to candidacy;
2. In order to be recommended for advancement to candidacy, students must obtain the written approval of their master’s degree program course work by their committee chair and graduate advisor;
3. Students must file a written statement in the department approved by the Faculty Advisor, indicating the student plans to complete all remaining requirements for the degree. The statement will include the members of the thesis committee, and the date for completing the thesis or for taking the comprehensive examination.

Capstone Experience

All graduate students must complete one of the following options:
A. Comprehensive Examination in the areas of theory, applied research methods, and substantive issues in their concentration;
B. Thesis.

Students following the comprehensive examination option will earn 3 units of credit in SOC 697 and those writing a thesis will be granted 3 units of credit in SOC 698.

Courses (SOC)

LOWER DIVISION

100. Principles of Sociology (3)
Prerequisite/Corequisite: A GE Foundation course.
Introduction to the sociological perspective as a tool for understanding society and culture, including the inter-personal, inter-group and global dimensions of social life.

142. Social Trends and Problems (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1) or PSY 130 or equivalent.
Corequisite: One Foundation Class.
General introduction to the study of social trends and problems in American institutions including social inequality crime, health and illness, education, media, environment and war and terrorism.
Emphasis is on social problems as products of the socio-historical and global context.
Open to non-majors for General Education credit in Category D.2.B.

161. Introduction to Latin American Studies (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1).
An interdisciplinary overview of history, society, and culture in Latin America – Mexico, Central American, the Caribbean, and South America. Examines the political, economic, social, and cultural conditions for conflict, change, and continuity over the last five hundred years.
Letter grade only (A-F). Same course as HIST 161 and LAS 161.
Not open for credit to students with credit in HIST 161 and LAS 161.

170. Elementary Statistics (4)
Prerequisite: SOC 100 or SOC 142 or instructor consent.
Introduction to descriptive and inferential statistics and applications in sociological research; performance of statistical exercises by interactive computer. Emphasis on selection of appropriate statistical methods and proper interpretation.
Letter grade only (A-F). (Discussion 3 hr., Lab 2 hrs.) Not open for credit to students with credit in HDEV 190, ANTH 202, MATH 108, MATH 180, PSY 110, or SOC 170.

270. Introduction to Research Methods (3)
Prerequisite: SOC 100 or SOC 142, SOC 170 or consent of the instructor.
Introduction to conducting original sociological research with a focus on techniques used to collect and analyze quantitative and qualitative data. Students learn how to apply these methods given research ideas and practice implementing various methods.
Letter grade only (A-F)

UPPER DIVISION

317. Problems in International Social Conflict (3)
Prerequisites: GE Foundation, one Explorations course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Topics may include ethnocentrism; nationalism; globalization; trade; aid; economic development; poverty; inequality; the environment; war; ideological, ethnic, gender, and religious conflict; democratization; social movements; new forms of civil society and social solidarity.
Letter grade only (A-F). Same course as I/ST 317. Not open for credit to students with credit in I/ST 317.
318. Cases in International Social Conflict (3)
Prerequisites: GE Foundation, one Explorations course, and upper division standing.
Interdisciplinary analysis of social conflict in the world. Case studies will focus on globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest; human rights; democratization; global citizenship; environmental sustainability.
Letter grade only (A-F). Same course as I/ST 318. Not open for credit to students with credit in I/ST 318.

320. The Family (3)
Prerequisite: SOC 100 or consent of instructor.
Sociological study of the social forces that shape the family in various cultures. Key theories and research methods used by sociologists to study family dynamics and change will be reviewed.

325. Sociology of Gender (3)
A sociological analysis of the social, political and economic status of women. Examines the history of women's roles and status; gender conflicts and social movements; and societal attitudes towards women in society.
Same course as WGST 325. Not open for credit to students with credit in WGST 325 or W/ST 325.

335. Social Psychology (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines the origins and development of the self through the socialization process. Emphasis is on the social influence of small groups (family, peers, reference groups and subcultures) and societal organization and institutions on identity, role behavior and attitudes.

340. The Latino Population in the United States (3)
Prerequisite: GE Foundation requirements.
Survey of the comparative historical, transnational, cultural and socio-economic experience (including class, gender, immigration and settlement patterns) of the various Latino sub-groups in the United States.
Letter grade only (A-F). Same course as CHLS 350. Not open for credit to students with credit in CHLS 350.

341. Central American and Caribbean Peoples in California (3)
Survey of the socioeconomic conditions and cultural life of the Central American and Spanish-speaking Caribbean communities in California, such as Salvadoran, Guatemalan, Puerto Rican, and Cuban communities. Similarities and differences with the Mexican-American community will be examined.
Same course as CHLS 352. Not open for credit to students with credit in CHLS 352.

342. Criminology (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Study of crime from a sociological perspective and the emerging interdisciplinary approaches to crime. Topics include definitions and measurement of crime, types of crime and crime statistics, and social policy issues involving the criminal justice system and crime prevention.
Not open for credit to students with credit in SOC 441.

345. Juvenile Delinquency (3)
Study of juvenile delinquency from a sociological perspective. Topics include a historical examination of delinquency, major theories of delinquency, the social context of delinquency, the societal reaction, social policies involving the juvenile justice system and youth related social problems.

346. Race, Gender and Class (3)
Prerequisite: GE Foundation requirements.
Sociological examination of race/ethnicity, gender and class in the U.S. Examines the affect of ideology, social interactions and social institutions on the creation and maintenance of racial, gender and class inequality.

350. International Population Problems (3)
Prerequisite: GE Foundation requirements.
Overview of the basic demographic variables (fertility, mortality and migration) and methods (vital statistics and census) to the study of international population problems. Examines the historical and current trends and problems in world population composition, growth and movement.

354. Qualitative Methods of Social Research (4)
Prerequisites: SOC 100, SOC 170, and one upper division course in sociology.
Review and critique of principles and essential features of classical and contemporary qualitative studies. Topics include research design, modes of participant observation, sampling and interview techniques, analysis and interpretation of data. Field assignments and individual research projects are required.
(Lecture 3 hours, laboratory 2 hours)

355. Quantitative Methods of Social Research (4)
Prerequisites: SOC 100, SOC 170 and one upper division course in sociology.
Review of research methods with emphasis on research design, including operationalization, measurement, scaling, reliability, validity and sampling; techniques of data collection and analysis. Individual student research projects are required.
(Lecture 3 hours, laboratory 2 hours) Letter grade only (A-F).

356. Classical Sociological Theory (3)
Prerequisite: SOC 100.
Social thought and historical forces leading to the emergence of sociology and an exploration of classical theories into the 1930s including such thinkers as Marx, Durkheim, Weber, Mead and Merton.

357. Modern Sociological Theory (3)
Prerequisites: SOC 100, SOC 356 and one other upper division course in Sociology.
Critical review of sociological thought from the 1930’s to present. Major schools such as functionalism, interactionism, conflict, exchange, and system theory will be covered in depth and considered in relation to the nature of theory construction.
Letter grade only (A-F).

358. The Sociology of Migration and Immigration (3)
Prerequisites: GE Foundation requirements and upper-division standing.
Focuses on historical and contemporary immigration to the United States. Examines causes and consequences of immigration; forces and events that propel migrants to move; patterns of economic adaptation and political incorporation; role of social institutions in immigrant adaptation, and the process by which immigrants become ethnics.
Letter grade only (A-F).

375. Art and Social Action: A Global Perspective (3)
Prerequisite: Upper division standing.
Examines the interconnections among global processes and global social problems from the perspectives of art and sociology. Analyzes historical, geographical, class and status components of these problems, and the role of art to promote social change.
Same course as ART 375. Not open for credit to students with credit in ART 375.
405. Un-Imaging the Middle East (3)
Prerequisites: Completion of GE Foundation requirements; I/ST 200, SOC 100, or consent of instructor. Student must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).

410. Environmental Sociology (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper-division standing.
Studies society's relationships with nature, including both cultural and structural dimensions. Integrates anthropological studies of pre-modern societies, together with cultural geography's emphasis on the meanings of place and environmental studies' contributions.
Letter grade only (A-F).

420. Social Stratification (3)
Prerequisite: SOC 100.
Examines sociological approaches and theories of stratification and inequality. Emphasis on how social class affects opportunity structures, income, social mobility and life chances. Analyzes causes and consequences of economic, political and social inequality.

423. Child Abuse and Prevention (3)
Examines child abuse as a social problem: its history and causal factors, including social processes and changing family patterns. Emphasis on social interventions and policy implications, including role of concerned citizens and child advocates.
Not open for credit to students with credit in SW 423.

426 Sociology of Sexualities (3)
Analyzes social context of human sexuality, including effects of socialization, social class and racial, ethnic and gender identities on sexual identities, attitudes and behaviors. Explores the impact of public institutional arrangements such as capitalism and globalization on individual sexualities.

427. Social Order and Social Change (3)
Prerequisite: SOC 100 and upper division standing.
Sociological analysis of social order and change from a historical and contemporary perspective. Emphasizes interactions between social movements, politics, economics and culture in explaining differential patterns of change.

430. Sociology of Globalization (3)
Prerequisites: SOC 100 and upper division standing.
Sociological examination of globalization. Themes include emergence of global order, ideology and power; democracy; capital and labor mobility; technology; environment; inequality; culture; reactions to globalization.
Course may include a service learning component. Letter grade only (A-F).

436. Racism, Power, and Inequality (3)
Prerequisites: SOC 100 or SOC 142 or consent of instructor
Examines the origins, character, maintenance, and consequences of race, racism, power, and inequality in the United States. It also analyzes the tensions and conflicts behind the social, political, cultural, and institutional manifestations of racial oppression and white privilege.
Letter grade only (A-F).

440. Sociology of Deviance (3)
Prerequisite: SOC 100.
Study of deviance from sociological perspective. Focuses on role of social institutions that define, shape and maintain definitions and perceptions of deviance. Topics include theories of deviance, including micro-level processes that shape behaviors and attitudes.
(Lecture 3 hours.)

447. Sociology of Popular Culture (3)
Prerequisite: SOC 100 or consent of instructor
Applies sociological theories to the study of popular culture. Examines cultural forms of mass-mediated entertainment and self-expression and applies critical and analytical tools to understand complexity and influence of popular culture within American social life, community and identity.
Letter grade only (A-F).

449. Sociology of Human Rights and Social Justice (3)
Prerequisite: GE Foundation requirements.
Contributions of sociology to the study of human rights and social justice, including analyses of power, institutions, cultural practices, social movements and the social context of action, the social construction of rights, and the impact of neoliberalism on well-being.
Letter grade only (A-F).

460. Poverty and Public Policy (3)
Prerequisite: SOC 100 or SOC 142 and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Examines poverty in the United States and the role of social policies in creating, perpetuating, and alleviating it.
Letter grade only (A-F).

462. Sociology of Health and Medicine (3)
Prerequisite: GE Foundation requirements.
Epidemiological and sociological approaches to health and illness; patterns of physical and mental disease; patient and physician perspectives; causes of stress and coping; health care delivery and utilization; interaction of physician, nurse, therapist, health administrator, social worker, patient, and family.

463. Mental Health and Society (3)
Prerequisite: SOC 100.
Epidemiological and sociological approaches to mental health and illness; prevalence and incidence of mental disorders; effects of family history, work experience and life-change events; social and legal status of the mental patient; governmental and organizational role in mental illness.

464. Aging and Society (3)
Prerequisites: SOC 100 or SOC 142.
Examines the impact of the aging population upon society and the effects of the socially defined experience of aging upon the individual. Analysis of the relationship between age and such variables as gender, race/ethnicity, class, marital and health status.

466. AIDS and Society (3)
Prerequisites: GE Foundation requirements. Recommended: BIOL 100 or BIOL 101 or BIOL 200 or MIRC 101 or MIRC 300.
Examines behavioral aspects and societal impact of the AIDS epidemic. Covers structural barriers such as poverty, sexism, and racism in HIV/AIDS prevention and treatment. Examines sexual identities, gender, race, culture and class. Emphasizes gender roles and gender power relations.
Letter grade only (A-F).

475. Religion and Social Change (3)
Prerequisites: SOC 100 or consent of instructor.
Advanced course in sociology explores the role of religion in large scale societal change, as well as social change within institutions of religion. Topics include the role of religion in social activism using conceptual frameworks from the sociology of religion and social movements.
Lecture/Discussion. Letter grade only (A-F).
487H. Selected Topics - Honors (3)
Prerequisite: SOC 356 and admission to Sociology Honors Program or consent of instructor.

Contemporary sociological topic, chosen by instructor. Covers topic's emergence, growth, relevant studies, debates, conclusions, and remaining questions. Students investigate one idea using recognized sociological research methods, and present research projects to each other for feedback and critique.
Letter grade only (A-F). May be repeated to a maximum of 12 units, with different topics in different semesters. Topics announced in the Schedule of Classes.

488H. Honors Research Seminar (3)
Prerequisites: SOC 355 and admission to the Sociology Honors Program or consent of instructor.

Foundational research processes for Honors Thesis. Includes literature review, hypothesis formulation and/or guiding ideas, and data collection. Group discussion of readings in social science research strategies, writing techniques, ethics, publication and related issues
Letter grade only (A-F).

489H. Honors Thesis (3)
Prerequisites: SOC 356, SOC 488H and admission to the Sociology Honors Program or consent of instructor.

Continuation of independent student research project begun in SOC 488H, Honors Research. Students meet periodically with their thesis advisor and with other honors students to discuss their work and will present their completed research in a public forum.
Letter grade only (A-F).

490. Selected Topics in Sociology (1-3)
Topics of special interest in sociology selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

492. Selected Topics in Interaction and Group Relations (3)
Topics of special interest in Interaction and Group Relations selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Discussion)

493. Selected Topics in Medical Sociology (3)
Topics of special interest in Medical Sociology selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Discussion)

494. Selected Topics in Social Change and Global Issues (3)
Topics of special interest in Social Change and Global Issues selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. (Discussion)

495. Internship (1-4)
Prerequisites: SOC 100, SOC 142, SOC 335, junior or senior standing, consent of instructor.

Supervised field experience in public and private agencies allowing students to relate sociological principles to community situations. Designed to provide career-related work experience in both research and applied fields. 1-4 units depending on field assignment and time required.
May be repeated to a maximum of 6 units. (6-10 hours per week field experience.)

496. Field Practicum (1-3)
Prerequisites: SOC 495.

Continuation of SOC 495. Permits students who continue working at a community agency to conduct special projects for that agency. Includes class meetings to discuss student projects, papers and evaluation activities for the agency. 1-3 units depending on field assignment.
May be repeated to a maximum of 4 units.

497. Peer Facilitation in Sociology (3)
Prerequisites: A grade of at least a “B” earned in at least one upper division course related to the peer facilitation activity and consent of instructor.

Conducting optional discussion sections, assisting an instructor in class exercises, projects or small group discussions, or tutoring individual students. Peer facilitation activities will be guided by meetings with the supervising faculty member and supplemented by reading and writing assignments.
Letter grade only (A-F). May be repeated to a maximum of 6 units.

499./599. Directed Studies (1-3)
Prerequisite: Consent of instructor.

Independent study of special topics under faculty supervision. May be repeated to a maximum of 4 units. In exceptional cases, may be repeated to a maximum of 6 units with consent of department.

GRADUATE LEVEL

536. Sociology of Race, Racism, and Racial Relations (3)
Prerequisite: SOC 656 and SOC 696 or consent of instructor
Applies sociological theories and principles to study race, ethnicity, inequality and racial/ethnic relations in the United States.
Letter grade only (A-F).

540. Urban Sociology (3)
Prerequisites: SOC 356, SOC 357 or consent of instructor.
Examines processes involved in shaping urban policies in large metropolitan areas. Identifies key urban problems of our day, dominant political alliances that run most cities, and means by which residents, community-based organizations, and unions can influence in policy making process.
Letter grade only (A-F).

558. Sociology of U.S. Immigration (3)
Prerequisite: SOC 656 and SOC 696 or consent of instructor.
Examines causes and consequences of immigration; forces and events that propel migrants to move, and processes of adaptation and incorporation. State and national level policies and debates will be addressed.
Letter grade only (A-F).

560. Poverty and Public Policy (3)
Prerequisite: Graduate standing or consent of instructor
Examines poverty in the United States and the role of social policies in creating, perpetuating, and ameliorating it. Provides an historical, theoretical, and comparative background, yet focuses on contemporary policies and issues within the United States.
Letter grade only (A-F).
561. Applied Topics in Medical Sociology: Community, Culture and Health (3)
Prerequisites: SOC 462, SOC 562, or consent of instructor
Examines how economic and socio-political forces shape community health outcomes, policies and programs. Surveys a range of theoretical and methodological frameworks used in community-based health research. Applies knowledge by collecting, analyzing and reporting data on a community health topic.
Letter grade only (A-F).

562. Global Health (3)
Prerequisites: SOC 462 or equivalent or consent of instructor
Examines cultural and social causes of illness and access to and practice of healthcare. Major themes include stress and coping, social epidemiology, political and cultural considerations affecting illness, sociological perspectives on the life course, and activism for improved community health.
Letter grade only (A-F).

599./499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent study under supervision of a faculty member. May be repeated to a maximum of 4 units. In exceptional cases, to a maximum of 6 units with department consent. Undergraduates completing over 3 units of SOC 499 may not enroll. Letter grade only (A-F).

656. Seminar in Sociological Theory (3)
Prerequisites: SOC 356, SOC 357 or equivalent or consent of instructor.
Focuses on major issues, problems, positions and theorists defining and organizing sociological theory historically and today. Designed to encourage theoretical application, emphasizing current and relevance and applicability of sociological theory.
Letter grade only (A-F).

670. Sociological Practice (3)
Prerequisites: SOC 656 and SOC 696, or their equivalents or consent of instructor.
Introduction to theoretical, thematic, and practical components of sustainable community development. Topics include definitions of community, strategies of empowerment, challenges to community-based research, working in the community, and values and ethics in community-based advocacy research.

690 Supervised Teaching Apprenticeship (3)
Prerequisites: Graduate standing, appointment as a teaching assistant, SOC 656, SOC 670, SOC 696 or their equivalents, or consent of instructor.
Seminar for teaching assistants designed to deal with problems and techniques of teaching sociology courses, pedagogical strategies, literature on teaching, course objectives, alternative teaching techniques, preparation of course syllabus, lectures, discussions, exams.

695 Internship (3)
Prerequisites: Graduate standing, SOC 656, SOC 670, SOC 696, or consent of instructor.
Supervised field experience in public and private agencies providing experiential learning.
Credit/No Credit grading only. May be repeated to a maximum of 6 units in different semesters.
Department Chair: Markus Muller
Co-Program Director: Claire E. Martin
RGRLL Language Coordinator: Cedric Oliva
Single Subject Coordinator for L.O.T.E.: Cynthia Leathers
Department Office: Academic Services, Room 309
Telephone: (562) 985-4317
http://www.cla.csulb.edu/departments/rgrll/
Faculty: Maria Carreira, Alicia del Campo, Daniel Herrera Cepero, Bonnie Gasior, Claire E. Martin, Alexander Rainof
Administrative Support Coordinator: Alessandro Russo

Career Possibilities
Customs Inspector • Immigration Officer • Importer/Exporter • Foreign Service Officer • International Marketing Representative • Travel Guide • Social Worker • Linguist • Foreign Correspondent • Community Organization Worker • Lawyer • Librarian • International Student Advisor • Educator • Peace Corps Worker • Interpreter • Translator • CIA/FBI Agent (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Spanish Program offers courses in language, linguistics, literature, culture and translation leading to the following degrees and certificates: Bachelor of Arts and Master of Arts degrees in Spanish, Single Subject Teaching Credential in Spanish, Concentration in Spanish for the Bachelor of Arts in Liberal Studies, minor in Spanish, and the Bilingual Concentration for B.A. in Liberal Studies.

Undergraduate Programs

Bachelor of Arts in Spanish (120 units)
Prerequisites
One year of intermediate Spanish at the university level, or equivalent. Students who have completed sufficient high school Spanish or equivalent may take upper-division courses as soon as proficiency requirements have been met. Heritage speakers of Spanish who have never formally studied the language are recommended to take SPAN 250 (6-unit GE course).

Requirements
Take all of the following:
- SPAN 300 Advanced Grammar and Composition (6)
  Prerequisites: AP exam with a score of 4 or 5 or SPAN 201B or equivalent for non-native speakers. SPAN 250 or equivalent for heritage speakers.
- SPAN 310 Introduction to Literary Analysis (3)
Prerequisite: SPAN 300.
- SPAN 330 Literary Masterpieces: Spain (3)
  Prerequisites: SPAN 310 or consent of Spanish Program Director; GE Foundation requirements.
- SPAN 341 Literary Masterpieces: Spanish America (3)
  Prerequisites: SPAN 310 or consent of Spanish Program Director.
- SPAN 423 Introduction to Spanish Linguistics (3)
  Prerequisite: SPAN 300 or consent of instructor.
Take one of the following: SPAN 430, SPAN 445
Take 18 upper-division units selected from the following:
- SPAN 314, SPAN 335A, SPAN 335B, SPAN 350, SPAN 351, SPAN 400, SPAN 420, SPAN 426, SPAN 427, SPAN 428, SPAN 429, SPAN 430, SPAN 438, SPAN 439, SPAN 440, SPAN 441, SPAN 442, SPAN 443, SPAN 444, SPAN 445, SPAN 446, SPAN 447, SPAN 448, SPAN 449, SPAN 450, SPAN 455, SPAN 460, SPAN 461, SPAN 462, SPAN 463, SPAN 464, SPAN 465, SPAN 466, SPAN 467, SPAN 490, SPAN 491, SPAN 492, SPAN 493, SPAN 494, SPAN 499; RGR 346, RGR 400, RGR 424, RGR 425, RGR 450, RGR 470, RGR 490.
Take two years of a second foreign language at the college level.

Single Subject Teaching Credential in Spanish
Completion of the Spanish major meets the subject matter competence requirement for the Single Subject Teaching Credential in Spanish. Prospective students should consult the undergraduate Spanish Advisor and the Languages Other Than English (LOTE) Credential Program Advisor early to plan their program.

In addition to meeting the subject matter competence requirement for the teaching credential, prospective teachers of Spanish are also required to complete 45 units of professional preparation in the Single Subject Credential Program, including student teaching. Students may begin the professional preparation courses as early as the junior year. With careful planning, it is possible to complete all of the credential program courses, except for student teaching, as an undergraduate. Courses may also be completed as a post-baccalaureate student. Refer to the Single Subject Teacher Education section of this catalog or the website (www.ced.csulb.edu/single-subject) for a description of professional preparation requirements, courses, and application procedures.

Requirements
The same as for B.A. in Spanish.

Minor in Spanish
Requirements
A minimum of 18 to 34 units in Spanish depending on language competency, at least 15 of which must be upper division.
Language Competency: students must achieve intermediate competency in Spanish equivalent to SPAN
200, 201B or SPAN 250 prior to enrolling in upper division coursework. The total number of lower-division units depends on the student’s existing language competency and can range from 0 to 16 units depending on placement. Students should consult with the undergraduate advisor regarding demonstration of existing language competency.

A minimum of 15 units upper division, including:

- SPAN 300 Advanced Grammar and Composition (6)
- Prerequisites: AP exam with a score of 4 or 5 or SPAN 200 or SPAN 201B or equivalent for non-native speakers. SPAN 250 or equivalent for heritage speakers.

Students must file a Declaration of Minor and receive counseling from the undergraduate advisors. The minor in Spanish is available to any non-Spanish major. N.B.: No course used to satisfy any requirement for the Minor in Spanish may be taken on a Credit/No Credit basis.

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**Graduate Programs**

**Master of Arts in Spanish**

**Prerequisites**

1. A Bachelor of Arts degree in Spanish with minimum "B" (3.0) GPA overall; or
2. A Bachelor's degree with a minimum of 18 upper division units in Spanish equivalent to the Basic Core of the B.A. in Spanish at this University. Minimum "B" (3.0) GPA overall. Deficiencies will be determined by the Master's Degree Committee after consultation with the student and study of transcript records.

**Advancement to Candidacy**

1. Approval of a graduate program by the graduate advisor, the department chair, and the college associate dean of graduate studies.
2. Requirements: All deficiencies have been removed; the student has fulfilled the Graduation Writing Assessment Requirement (GWAR); the student has maintained at least a "B" (3.0) GPA in all work in Spanish.
3. The candidate may file for advancement to Candidacy after filing an individualized Course Planner, completing prerequisites, and completing at least 6 units (preferably no more than nine units) on the M.A. program. The candidate must file not later than one semester or summer session prior to completion of course requirements.

**Requirements**

1. Completion of a minimum of 30 units in SPAN in the 500 and 600 series distributed as follows: SPAN 650 Research Methods and Critical Theory (3) (required) + 2 courses in Linguistics + 2 courses in Latin American Literature/Culture + 2 courses in Peninsular Literature/Culture + 3 electives.
2. Two years of one of the following languages: Italian, Portuguese, French, or German, or pass an examination at intermediate level in one of those languages. Major or minor in a second foreign language may be used to fulfill this requirement, upon approval by the graduate advisor.
3. Maintain a GPA of at least "B" (3.0) in Spanish exclusive of courses taken in other programs.

4. Pass comprehensive examinations based on Graduate Reading List after course work completed. (Note: In order to satisfy the culminating activity requirement (thesis, project, or comprehensive examination dependent upon the program), students must earn at least three (3) units and no more than six (6) units related to the completion of the culminating activity.)

5. Maximum of six units of transfer graduate credit are allowed, subject to approval by the graduate advisor.

**Single Subject Teaching Credential in Spanish**

For information, refer to the undergraduate section in this department.

**Spanish Courses (SPAN)**

### LOWER DIVISION

**100. Fundamentals of Spanish (6)**
Prerequisite/Corequisite: Any Foundation course.

Two semesters of fundamental Spanish are covered in one semester in this intensive hybrid (blended) course.

Not open to heritage or native speakers of Spanish. Not open to students who have completed SPAN 101B. (4 hrs in class, 2 hrs online)

**101B. Fundamentals of Spanish (4)**
Prerequisite/Corequisite: Two years of high school Spanish or equivalent. Any Foundation course.

Fundamental skills of speaking, oral comprehension, reading and writing.

Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of Spanish.

**200. Intermediate Spanish (6)**
Prerequisites: SPAN 100 or SPAN 101B or a minimum of 3 years of high-school Spanish. Prerequisite/Corequisite: Any Foundation course.

Two semesters of Intermediate Spanish are covered in one semester in this intensive hybrid (blended) course.

Not open to heritage or native speakers of Spanish. Not open to students who have completed SPAN 201A or SPAN 201B. (4 hrs in class, 2 hrs online)

**201A. Intermediate Spanish (4)**
Prerequisite: SPAN 101B or three years of high school Spanish or equivalent.

Prerequisite/Corequisite: Any Foundation course.

Continued development in speaking, oral comprehension, reading and writing skills.

Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/cla/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of Spanish.
201B. Intermediate Spanish (4)
Prerequisite: SPAN 201A or four years of high school Spanish or equivalent. Prerequisite/Corequisite: Any Foundation course.
Continued development in speaking, oral comprehension, reading and writing skills.
Transfers and new students: placement exam strongly recommended. For further information, please refer to the RGRLL Department website www.csulb.edu/colleges/clas/departments/rgrll/. For non-native speakers only. Not open to heritage speakers or native speakers of Spanish.

201C. Intermediate Spanish III (4)
Prerequisite: Any Foundation course. SPAN 201B or a minimum of four (4) college-level courses in Spanish or AP Exam (Pass at level 4 or 5).
Advanced Intermediate skills of speaking, comprehension, reading, and writing.
For non-native speakers only.

250. Spanish for Bilinguals (6)
Prerequisite: Near native speaker oral skills and GE Foundation requirements (or concurrent enrollment in at least one Foundation course).
Addresses particular needs of bilingual student population. Emphasis on acquisition of solid grammatical base with development of writing and reading skills.
Letter grade only (A-F).

UPPER DIVISION
General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Advanced Grammar and Composition (6)
Prerequisites: AP exam with a score of 4 or 5 or SPAN 201B or equivalent for non-native speakers. SPAN 250 or equivalent for heritage speakers.
Review of grammatical principles, general consolidation of the four language skills (reading, speaking, comprehension and writing) with special emphasis on writing papers and acquisition of cultural knowledge of the Hispanic world.
Check for the code 138 (for non-native speakers) and 139 (for heritage speakers) in the Schedule of Classes. (6 hours of activity)

310. Introduction to Literary Analysis (3)
Prerequisite: SPAN 300.
Discovery of literature as a work of art. Different levels of interpretation; complexity of structure related to content; literary appreciation.
Letter grade only (A-F).

314. Oral Communication (3)
Prerequisite: SPAN 300.
Emphasis will be placed on small-group discussion to improve communication skills in Spanish. Not open to native/heritage speakers.

330. Literary Masterpieces: Spain (3)
Prerequisites: SPAN 310 or consent of instructor. GE Foundation requirements.
Critical analysis of masterworks of Spanish literature.
(Lecture 3 hours)

335A. Business Spanish (3)
Prerequisites: SPAN 300 (6 units) or consent of instructor.
Study of terminology and practices from the world of business, with a focus on business relating to the Spanish speaking world, including the Hispanic market in the United States. It focuses on commerce, management, banking, real estate, and labor relations.

335B. Business Spanish (3)
Prerequisites: SPAN 300 or consent of instructor.
Study of terminology and practices from the world of business, with a focus on business relating to the Spanish speaking world, including the Hispanic market in the United States. It focuses on marketing, finance, import and export.
Letter grade only (A-F).

341. Literary Masterpieces: Spanish America (3)
Prerequisites: SPAN 310 or consent of instructor.
Critical analysis of masterworks of Spanish American literature.
(Lecture 3 hours)

350. Hispanic Short Narrative (3)
Prerequisite: SPAN 310
An overview of representative short narrative from the Spanish-speaking world encompassing corresponding historical periods or thematic similarities.
Letter grade only (A-F).

351. Survey of Hispanic Theater (3)
Prerequisites: SPAN 310.
Explores the development of the genre of theater in the Hispanic World in its social, cultural, historical, and political context either across time periods (medieval to 20th century) or within a certain literary movement (Romanticism, Neoclassicism, etc.).
Letter grade only (A-F).

400./500. Don Quijote and the Critics (3)
Prerequisite: SPAN 330.
Designed to guide students through a close reading of Cervantes’s Don Quijote, with special emphasis on various theoretical approaches to text. Provides basic introduction to literary criticism.

420./520. History of Spanish Language (3)
Prerequisite: One course in Spanish linguistics or consent of instructor.
Analysis of written and spoken Spanish from its inception through its current use in the Hispanic world.

423./523. Introduction to Spanish Linguistics (3)
Prerequisite: SPAN 300 or consent of instructor.
Overview of Spanish Linguistics. Areas of study: history of Spanish language, grammatical systems (Phonology, Morphology, Syntax), sociolinguistics status of Spanish in the U.S. and the teaching of Spanish as a second language.

426./526. Spanish Morphology and Syntax (3)
Prerequisite: Consent of instructor.
Morphemic and syntagmatics analysis of Spanish; introduction to transformational grammar.
(Lecture 3 hours)

427./527. Contrastive Analysis of Spanish and English (3)
Prerequisites: One course in Spanish linguistics or consent of instructor.
Study of the known points of similarity and differences between the two languages.

428. Spanish Cinema (3)
Prerequisites: Upper-division standing.
Focus on socio-political and aesthetic aspects of Spanish Cinema, concentrating on the following periods. Early Francismo, Neo-Realism, The Barcelona School, the Transition Period, post Franco Years, and new trends in Spanish Cinema.
Taught in English. Letter grade only (A-F). Same course as FEA 460. Not open for credit to students with credit in FEA 392E or 460.
### Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite/Co-requisite</th>
<th>Description</th>
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<tbody>
<tr>
<td>429/529</td>
<td>Studies in 19th and 20th Century Spanish Poetry (3)</td>
<td>Prerequisite: SPAN 330</td>
<td>Examines salient poets from last two centuries, including Rosalía de Castro, Gustavo Adolfo Bécquer, Antonio Machado, Juan Ramón Jiménez, Vicente Aleixandre, Federico García Lorca, Gloria Fuertes, Jaime Gil de Biedma, and other more contemporary figures. Undergraduates register in SPAN 429; graduates register in SPAN 529. Letter grade only (A-F). (Seminar 3 hours)</td>
</tr>
</tbody>
</table>

| 430         | Spanish Civilization (3)                                           | Prerequisites: SPAN 300   | Characteristic features of Spanish culture with special attention to the various institutions, economic, social and cultural configurations, and the ways of thinking. |

| 438/538     | Studies in Golden Age Literature (3)                               | Prerequisite: SPAN 330    | Survey of 16th and 17th century masterpieces from Spain such as La Celestina, Lazarillo de Tormes, Los desengaños amorosos and their intersections with notions of hegemony, sexuality, gender, race, and class. |

| 439/539     | Modern Spanish Narrative (3)                                       | Prerequisite: SPAN 330 or consent of instructor. | Representative 19th and 20th century novelists. Undergraduates register in SPAN 439, graduates register in SPAN 539. (Seminar) |

| 440/540     | Civilized Barbarisms: Nature, War and Race in Latin American Fiction (3) | Prerequisites: SPAN 341 | Study of Latin American fiction dealing with military conflicts, economic and ecological struggles, and ethnic strife from the late nineteenth century to the present. |

| 441/541     | Studies in Nineteenth and Twentieth Century Spanish American Narrative (3) | Prerequisite: SPAN 341 or consent of instructor. | Critical analysis of 19th and 20th century Spanish American prose fiction. Undergraduates register in SPAN 441, graduate register in SPAN 541. Undergraduates register in SPAN 441, graduates register in SPAN 541. (Seminar 3 hours). |

| 442/542     | Nation Building and Women’s Writing in Nineteenth-Century Spanish America (3) | Prerequisites: SPAN 341 | Explores field of Spanish American women writers during nineteenth century and concept of nation building. Several genres are studied: epistolary narrative, short-story, travel narratives, essay, autobiography, and the novel. |

| 443/543     | Studies in Nineteenth and Twentieth Century Spanish American Poetry (3) | Prerequisite: SPAN 341 or consent of instructor. | Study of representative 19th and 20th century Spanish American poets. Letter grade only (A-F). Undergraduates register in SPAN 443, graduates register in SPAN 543. |

| 444/544     | Nineteenth-Century Spanish America and the National Family Romance (3) | Prerequisites: SPAN 341 | Advanced course studies Spanish American canonical writers during the nineteenth century in relation to the concept of “family romance.” These fictions constitute the foundational master narratives that were the guiding fictions for the new independent nations. |

| 445        | Latin American Civilization (3)                                    | Prerequisite/Corequisite: SPAN 300 | Analysis of main currents in Latin American civilization. |

| 446/546     | Studies in Spanish Culture (3)                                     | Prerequisite: SPAN 330 | Deals with some aspect of Spanish culture in an interdisciplinary fashion during a given period. Topics could include social, political, theoretical, and/or historical perspectives on the arts. Undergraduates register in SPAN 446; graduates register in SPAN 546. Letter grade only (A-F). May be repeated to a maximum of 6 units. (Seminar 3 hours) |

| 447/547     | The Invention of Spain: Visions in Conflict (3)                   | Prerequisites: SPAN 330 | A social, historical and literary study of Spain from 1808 through the beginning of the Spanish Civil War in 1936. Many groups struggle to impose their vision of Spain as it emerges from the War of Independence in 1808, transitioning from the Antiguo Régimen to nationhood. |

| 448/548     | Romanticism and Realism (3)                                       | Prerequisites: SPAN 330 | A systematic tracing of the derivation of Spanish Romanticism in narrative forms, in its European and Peninsular trajectories and its transformation into realism toward mid nineteenth century. |

| 449/549     | Dictatorship to Democracy: Film and Literature in Spain (1930-today) (3) | Prerequisites: SPAN 330 | Advanced course explores Spanish culture through film and literature of the pre-Civil War period, the Franco period, and the transition to democracy, the advanced democracy of Spain today. |

| 450/550     | Studies in Colonial Spanish American Literatures (3)              | Prerequisites: SPAN 330 | Deals with some aspect of Spanish culture in an interdisciplinary fashion during a given period. Topics could include social, political, theoretical, and/or historical perspectives on the arts. |


| 460/560     | Studies Spanish American Culture (3)                              | Prerequisite: SPAN 341 | In-depth study of some essays which have dealt with problem of what Spanish American nations are, and what they should be during the republican era. Includes authors from both nineteenth and twentieth centuries. May be repeated to a maximum of 6 units with different topics in different semesters. |

| 461        | Introduction to Translation and Interpretation (3)               | Prerequisites: SPAN 300 with a “B” or better or instructor’s consent. | Designed to introduce student to basic techniques essential to terminology acquisition, concentration, written and sight translation and consecutive and simultaneous interpretation. |
462. Written and Sight Translation I: English/Spanish (3)
Prerequisites: SPAN 461 or instructor's consent.
Designed to train students in sight and written legal, financial, medical and technical translation, and to introduce the student to the basic techniques that are essential to terminology acquisition. (English into Spanish).
Letter grade only (A-F).

463. Written and Sight Translation II: Spanish/English (3)
Prerequisites: SPAN 461 or consent of instructor.
Designed to train students in sight and written legal, financial, medical and technical translation, and to introduce the student to the basic techniques that are essential to terminology acquisition. (Spanish into English).
Letter grade only (A-F).

464. Consecutive Interpretation I (3)
Prerequisites: SPAN 461 or consent of instructor.
Designed to train students in forensic consecutive interpretation.
Letter grade only (A-F).

465. Consecutive Interpretation II (3)
Prerequisites: SPAN 461 or consent or instructor.
Designed to train students in Medical, Civil Legal, Business, Technical and State Agencies consecutive interpretation, and basic techniques that are essential to terminology acquisition and to techniques relating to interpreting in the consecutive mode sentences of up to forty words in length.
Letter grade only (A-F).

466. Simultaneous Interpretation English/Spanish (3)
Prerequisites: SPAN 461 or consent of instructor.
Designed to introduce the student to the techniques that are essential to the five simultaneous operations that form an integral part of simultaneous interpretation. (English into Spanish).
Letter grade only (A-F).

467. Simultaneous Interpretation Spanish/English (3)
Prerequisites: SPAN 461 or instructor's consent.
Designed to introduce the student to the techniques that are essential to the five simultaneous operations that form an integral part of simultaneous interpretation. Spanish into English.
Letter grade only (A-F).

490. Selected Topics in Spanish (3)
Prerequisite: SPAN 310 or consent of Instructor
Study of a particular aspect of Spanish literature, language or culture.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in Schedule of Classes.

491/591. Nobel Poets and Others (3)
Prerequisite: SPAN 330 or SPAN 341.
Critical analysis of representative works of Nobel Poets (Aleixandre, Jiménez, Mistral, Neruda and Paz) and other significant poets (Albertik, Bécquer, Dario, García Lorca, Garcielso, Góngora, Guillén, Vallejo, etc.) Undergraduate register in SPAN 491, graduates register in SPAN 591.
(Seminar 3 hours).

492/592. Studies in Hispanic Theater (3)
Prerequisite: SPAN 341 or consent of Instructor.
Representative Spanish and Spanish American plays.
Undergraduates register in SPAN 492, graduates register in SPAN 592.

493/593. Women and War (3)
Prerequisite: SPAN 310.
Examines the relationship between women and war in a literary context.
Undergraduates register in 493; graduates register for 593. Letter grade only (A-F). (3 hours lecture)

494. Internship in Spanish (1-3)
Prerequisites: Consent of instructor and department chair.
Field work in Spanish, supplemented by readings and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member.
May be repeated to a maximum of 6 units. No more than 3 units may be applied to the major in Spanish.

499. Independent Study (1-3)
Prerequisites: Consent of instructor and department chair.
Individual projects or directed readings with a professor of the student's choice.
May be repeated to a maximum of 6 units. (Requires tutorial meetings and demonstrations of progress as defined in a written proposal.)

GRADUATE LEVEL

500./400. Don Quijote and the Critics (3)
Prerequisite: SPAN 310.
Designed to guide students through a close reading of Cervantes's Don Quijote, with a special emphasis on various theoretical approaches to the text. The class will provide a basic introduction to literary criticism.

520./420. History of Spanish Language (3)
Prerequisite: One course in Spanish linguistics or consent of instructor.
Analysis of written and spoken Spanish from its inception through its current use in the Hispanic world.

526./426. Spanish Morphology and Syntax (3)
Prerequisite: Consent of instructor.
Morphemic and syntagmatics analysis of Spanish; introduction to transformational grammar.
Letter grade only (A-F). (Lecture 3 hours)

527./427. Contrastive Analysis of Spanish and English (3)
Prerequisite: Consent of instructor.
Study of known points of similarity and differences between the two languages.
Letter grade only (A-F).

529./429. Studies in 19th and 20th Century Spanish Poetry (3)
Prerequisite: SPAN 330.
Examines salient poets from last two centuries, including Rosalía de Castro, Gustavo Adolfo Bécquer, Antonio Machado, Juan Ramón Jiménez, Vicente Aleixandre, Federico García Lorca, Gloria Fuertes, Jaime Gil de Biedma, and other more contemporary figures.
Undergraduates register in SPAN 429; graduates register in SPAN 529. Letter grade only (A-F). (Seminar 3 hours)

538./438. Studies in Golden Age Literature (3)
Prerequisite: SPAN 330.
Survey of 16th and 17th century masterpieces from Spain such as La Celestina, Lazarillo de Tormes, Los desengaños amorosos and their intersections with notions of hegemony, sexuality, gender, race, and class.
539./439. Modern Spanish Narrative (3)
Prerequisite: SPAN 330 or consent of instructor.
Representative 19th and 20th century novelists.
Letter grade only (A-F). Undergraduates register in SPAN 439, graduates register in SPAN 539. (Seminar)

540./440. Civilized Barbarisms: Nature, War and Race in Latin American Fiction (3)
Prerequisites: SPAN 341.
Study of Latin American fiction dealing with military conflicts, economic and ecological struggles, and ethnic strife from the late nineteenth century to the present.

541./441. Studies in Nineteenth and Twentieth Century Spanish American Narrative (3)
Prerequisite: SPAN 341 or consent of instructor.
Critical analysis of 19th and 20th century Spanish American prose fiction.
Undergraduates register in SPAN 441, graduates register in SPAN 541. Letter grade only (A-F). (Seminar 3 hours).

542./442. Nation Building and Women’s Writing in Nineteenth-Century Spanish America (3)
Prerequisites: SPAN 310 and SPAN 341 or instructor’s consent.
Explores field of Spanish American women writers during the nineteenth century and concept of nation building. Several genres are studied: epistolary narrative, short-story, travel narratives, essay, autobiography, and the novel.

543./443. Studies in Nineteenth and Twentieth Century Spanish American Poetry (3)
Prerequisite: SPAN 341 or consent of instructor.
Study of representative 19th and 20th century Spanish American poets.
Undergraduates register in SPAN 443, graduates register in SPAN 543. Letter grade only (A-F). (Seminar)

544./444. Nineteenth-Century Spanish America and The National Family Romance (3)
Prerequisites: SPAN 310 and SPAN 341 or consent of instructor.
Advanced course studies Spanish American canonical writers during the nineteenth century in relation to the concept of “family romance.” These fictions constitute the foundational master narratives that were the guiding fictions for the new independent nations.

546./446. Studies in Spanish Culture (3)
Prerequisite: SPAN 330.
Deals with some aspect of Spanish culture in an interdisciplinary fashion during a given period. Topics could include social, political, theoretical, and/or historical perspectives on the arts.
Undergraduates register in SPAN 446; graduates register in SPAN 546. Letter grade only (A-F). May be repeated to a maximum of 6 units. (Seminar 3 hours)

547./447. The Invention of Spain: Visions in Conflict (3)
Prerequisites: SPAN 300, SPAN 310, SPAN 330.
Social, historical and literary study of Spain from 1808 through the beginning of the Spanish Civil War in 1936. Many groups struggle to impose their vision of Spain as it emerges from the War of Independence in 1808, transitioning from the Antiguo Régimen to nationhood.

548./448. Romanticism and Realism (3)
Prerequisites: SPAN 300, SPAN 310 and SPAN 330.
A systematic tracing of the derivation of Spanish Romanticism in narrative forms, in its European and Peninsular trajectories and its transformation into realism toward mid nineteenth century.

549./449. Dictatorship to Democracy: Film and Literature in Spain (1930-today) (3)
Prerequisites: SPAN 310 and SPAN 330 or consent of instructor.
Advanced course explores Spanish culture through film and literature of the pre-Civil War period, the Franco period, the transition to democracy, and the advanced democracy of Spain today.
Letter grade only (A-F).

550./450. Studies in Colonial Spanish American Literature (3)
Prerequisites: SPAN 310 and SPAN 341.
Focuses on canonical works from Spanish-American Colonial period (1500-1800). Covers a large selection of literary texts of colonial period, including chronicles, relaciones, letters, diaries, poetry, autobiography, and travel literature.

560./460. Studies in Spanish American Culture (3)
Prerequisite: SPAN 341.
In-depth study of some of the essays which have dealt with the problem of what the Spanish American nations are, and what they should be during the republican era. Includes authors from both nineteenth and twentieth centuries.
May be repeated to a maximum of 6 units.

590. Selected Topics in Spanish (3)
Study of a particular aspect of Spanish literature, language or culture.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics. Topics announced in Schedule of Classes.

591/491. Nobel Poets and Others (3)
Prerequisites: SPAN 330, SPAN 341, or consent of instructor.
Critical analysis of representative works of Nobel Poets (Aleixandre, Jimenez, Mistral, Neruda and Paz) and other significant poets (Albertik, Becquier, Dario, Garcia Lorca, Garcilaso, Gongora, Guillen, Vallejo, etc.) Undergraduates register in SPAN 491, graduates register in SPAN 591. Letter grade only (A-F)

592./492. Studies in Hispanic Theater (3)
Prerequisite: SPAN 330 or SPAN 341, or consent of instructor.
Representative Spanish and Spanish American plays.
Letter grade only (A-F). Undergraduates register in SPAN 492; graduates register in SPAN 592.

593./493. Women and War (3)
Prerequisite: SPAN 310.
Examines the relationship between women and war in a literary context.
Undergraduates register in SPAN 493; graduates register for SPAN 593. Letter grade only (A-F). (3 hours lecture)

599. Directed Studies (1-3)
Prerequisites: Graduate standing, advanced to candidacy, consent of the instructor and chair or graduate advisor.
Selected topics on Hispanic Studies to be pursued in-depth.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics with consent of graduate advisor and department chair.

640. Selected Topics - Seminar in Spanish American Literature (3)
Prerequisite: SPAN 341 or consent of instructor.
Study of particular period, genre or author.
Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in Schedule of Classes. (Seminar 3 hours)
650. Research Methods and Critical Theory (3)
Prerequisite: SPAN 310.
An introduction to Master’s level research methods, including information technology, library literacy, research paper preparation, conference presentations, and professionalization issues related to M.A.-level work. The idiom of critical theory will be introduced in an application-based setting.
Letter grade only (A-F). (Seminar 3 hours).

691. Seminar in Spanish Literature - The Spanish Civil War and Its Artistic Repercussions (3)
Prerequisite: SPAN 330, SPAN 341 or consent of instructor.
Examines fiction dealing with war themes written during and after the Spanish Civil War (1936-39). It includes authors such as Arturo Barea, Constancia de la Mora, Cesar Vallejo, Pablo Neruda, Dolores Ibárruri, Ernest Hemingway, Juan Goytisolo, George Orwell, and Ana María Matute.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (Seminar 3 hours)
Department Chair: Carolyn Conway Madding
Department Office: Language Arts Building (LAB), Room 102
Telephone / FAX: (562) 985-4594 / (562) 985-4584
Clinic Office: Language Arts Building (LAB) Room 112
Telephone: (562) 985-4583
Faculty: Betty McMicken, Carolyn Conway Madding, Geraldine P. Wallach, Jennifer Ostergren, Lei Sun, Pei-Fang Hung
Advisors:
Undergraduate: Pei-Fang Hung
Graduate: Jennifer Ostergren
Clinic Coordinator: Stephen Charlton
Technician: Rodney Pau
Department Administrator: Susan McNamara

Career Possibilities
Speech-Language Pathologist • Speech-Language Pathology Assistant • Audiologist • Vocational Rehabilitation Counselor • Supervisor of Special Education (For more information, see www.careers.csulb.edu.)

Introduction
The Speech-Language Pathology Department provides undergraduate coursework for students planning careers in speech-language pathology or audiology. Departmental majors may complete work leading to the Bachelor of Arts degree in Communicative Disorders (Speech-Language Pathology) and Master of Arts degree in Communicative Disorders (Speech-Language Pathology). Students who earn the Master's degree qualify for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association, the Speech-Language Pathology Services Credential from the California Commission for Teacher Credentialing, and the State of California Licensure in Speech-Language Pathology. Students pursuing the B.A. degree may qualify for State of California Licensure as a Speech-Language Pathology Assistant.

The department maintains a language, speech and hearing clinic to serve as a clinical and research laboratory on campus for both graduate and undergraduate students. Field placements are available in local hospitals, rehabilitation agencies, language/speech/hearing clinics, and public schools.

The Department of Speech-Language Pathology at CSULB is fully accredited, by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

Undergraduate Programs

Bachelor of Arts in Speech-Language Pathology (120 units)

Admission Under Impaction
Refer to the following website for additional impaction criteria: http://www.csulb.edu/depts/enrollment/admissions/impacted_major.html.

Requirements

Lower Division:
Take all the following courses:
C D 261 Anatomy and Physiology of the Speech and Hearing Mechanism (3)
Prerequisites: None
C D 271 Phonetics (3)
Prerequisite: None
PSY 110 Introductory Statistics (or equivalent) (4)
*C or better
Prerequisites: Eligible to take a General Education Mathematics course.

Upper Division:
Take all the following courses:
C D 329 Language Acquisition: From Birth Through Adolescence (3)
Prerequisites: CD 261, CD 271.
C D 330 Speech and Hearing Science (3)
Prerequisites: CD 261 and CD 271.
C D 373 Audiology I (3)
Prerequisites: CD 261, CD 271.
C D 440 Aural Rehabilitation for Hearing Impaired (3)
Prerequisites: CD 261, CD 271, CD 373.
C D 456 Speech Pathology I: Speech Sound Disorders (3)
Prerequisites: CD 261, CD 271, CD 329, CD 460.
C D 460 Multicultural and Multilingual Issues in Speech-Language Pathology (3)
Prerequisites: CD 261, CD 271, CD 329.
C D 464 Behavior Management and Counseling in Speech-Language Pathology (3)
Prerequisites: CD 261, CD 271, CD 329, CD 460.
C D 466 Speech Pathology II: Speech Motor Disorders (3)
Prerequisites: CD 261, CD 271, CD 330, CD 476.
C D 472 Alternative and Augmentative Communication (3)
Prerequisites: CD 261, CD 271, CD 329, CD 464.
C D 476 Speech Pathology III: Disorders of Voice/Oro-Facial Mechanism (3)
Prerequisites: CD 261, CD 271, CD 330.
C D 477 Disorders of Swallowing (3)
Prerequisites: CD 261, CD 271.
C D 481A Speech Pathology IV: Disorders of Language, Children (3)
Prerequisites: CD 261, CD 271, CD 329, CD 456.
C D 481B Speech Pathology IV: Disorders of
Graduate Programs

Master of Arts in Speech-Language Pathology

Admission to the Graduate Program

Enrollment in 500/600 level courses in speech-language pathology is restricted to students who have been accepted to one of the graduate programs (traditional or cohort) of the department as unconditionally classified students. Students wishing to be admitted must complete the following procedures:

1. Students must meet the criteria for acceptance by the University as a graduate student;
2. Every student (new or continuing) must apply directly to the university through CSU Mentor. CSU Mentor applications are processed by the university online at http://www.csumentor.edu/. Original transcripts and GRE scores must be sent directly to the university. The department will access these transcripts electronically for department evaluation. All materials to the university must be received no later than January 15th;
3. Students applying to the traditional or special cohort M.A. program, then must apply to the Department of Speech-Language Pathology for admission to the graduate program using the department application form. This form must be filed with the graduate advisor by January 15th for admission in the subsequent fall semester. The following supportive materials must be filed with the department admission application:
   A. Change of objective form available at department office (continuing CSULB students only);
   B. One-page summary of relevant work, volunteer or research experience, with name and contact information for corroborating professional.

NOTE: Minimum Criteria 1) a GPA of 3.5 or better in the last 60 units of coursework, including Speech-Language Pathology coursework; and 2) confirmation of acceptable GPA obtained during the final senior semester. Any course deficiencies will be determined by the department graduate committee after consultation with the student and the student's faculty advisor. Students applying to the graduate program in Speech-Language Pathology will have completed one of the two prerequisites listed in the next section prior to enrollment in graduate classes.

Prerequisites

1. A bachelor's degree from an accredited institution with a major in communicative disorders, speech-language pathology, speech and hearing sciences, etc., or
2. A bachelor's degree from an accredited institution in a discipline other than Speech-Language Pathology. The applicant must have at least 30 units of course work in speech-language pathology/communicative disorders as a matriculated student in an undergraduate program or master's preparatory program from a university with accreditation from the American Speech-Language-Hearing Association (ASHA) before enrollment in the graduate program.

Advancement to Candidacy

In order to be advanced to candidacy for a Master's degree, a student must meet the following criteria:

1. enrollment in the semester or summer session in which advancement takes place;
2. satisfactory completion of C D 696 Research Methods: Applied and Basic (3) and three additional units;
3. satisfactory fulfillment of the CSULB Graduation Writing Assessment Requirement (GWAR). The GWAR must be fulfilled before the student is advanced to candidacy;
4. maintenance of a GPA of at least 3.0 in (a) all graduate work completed in Speech-Language Pathology, (b) all graduate work completed at CSULB, and (c) all graduate work transferred to meet graduation requirements with no grade below "C";
5. filing of the student Program for the Master of Arts Degree in Speech-Language Pathology after completion of items 2-5;
6. the Department's standard written program of graduate courses approved by the student's department advisor, the department graduate advisor, the department chairperson, and the College of Health and Human Services Associate Dean. (This form is known as the Advancement to Candidacy form.)

Requirements

Forty-one to Forty-Five (41-45) units of course work are required:

Take all of the following courses (31 units):
- C D 661 Traumatic Brain Injury Across the Lifespan (3) Prerequisites: CD 696.
- C D 662 Seminar in School-Age Language Disorders: Grade 1 through High School (3) Prerequisites: CD 456, CD 481A and CD 696.
- C D 663 Seminar in Preschool Language Disorders: 0-5 Years (3) Prerequisites: CD 456 and CD 481A. Corequisite: CD 696.
- C D 665 Seminar in Language Disorders in Adults (3) Prerequisites: CD 481B, CD 696.
- C D 666 Seminar in Motor Speech Disorders and Fluency Disorders (3) Prerequisites: CD 466, CD 696.
- C D 667 Seminar in Autism Spectrum Disorders (3) Prerequisite: CD 696.
- C D 668 Seminar in Dysphagia (2)
Prerequisite: CD 477, CD 696

C D 669A Clinical Practice – Child-Adolescent Speech and Language Clinic (2)
Prerequisites: CD 489; Prerequisite/Corequisites: CD 663 and consent of instructor.

C D 669B Clinical Practice: Autism Spectrum Disorders (2)
Prerequisites: CD 667.

C D 669J Clinical Practice - Adult Speech and Language Clinic (2)
Prerequisites: CD 489; Prerequisite/Corequisites: CD 665 and consent of instructor.

C D 669L Clinical Practice with Culturally and Linguistically Diverse Clients (2)
Prerequisites: 1) Completion of all disorder-specific graduate seminars; 2) completion of a minimum of 3 core clinics (CD 669 A-J); 3) CD 483 and CD 489, or equivalent as approved by the instructor) and consent of instructor.

C D 696 Research Methods: Applied and Basic (3)
Prerequisites: PSY 110 or equivalent or consent of instructor.

Take one of the following options:

Option 1 (10 units):

- CD 670 Medical Internship in Speech and Language Pathology (5)
  Prerequisites: Complete with a grade of B or higher all graduate seminars for the Master's degree in CD and all graduate clinics applicable to specific field placement (as determined by instructor), and Department consent.)

and

- CD 686A Public School Practicum in Speech-Language Pathology (5)
  Prerequisites: Pass the CBEST, complete with a grade of "B" or higher all graduate seminars and all but one graduate clinic required for the Master's degree in CD, and department consent.

Option 2 (7 units):

- CD 669H Clinical Practice-Special Programs (2)
  Prerequisites: At least one of the C D 669A through J courses. Specialized practice placement to obtain experience with speech, language, and hearing disorders. May be repeated to a maximum of 4 units. Letter grade only (A-F).

and

- CD 670 Medical Internship in Speech and Language Pathology (5)
  Prerequisites: Complete with a grade of B or higher all graduate seminars for the Master's degree in CD and all graduate clinics applicable to specific field placement (as determined by Instructor and Department consent.)

or

- CD 686A Public School Practicum in Speech-Language Pathology (5)
  Prerequisites: Pass the CBEST, complete with a grade of "B" or higher all graduate seminars and all but one graduate clinic required for the Master's degree in CD, and department consent.

Completion of one of the following options:

Option 1 Comprehensive Examination (3 Units):

- C D 695 Directed Readings and a 2-unit elective
  (C D 575 recommended)
  Prerequisites: Consent of instructor.

or

Option 2 Thesis (4 Units):

- C D 698 Thesis
  Prerequisites: Advancement to candidacy for master's degree.

Regulations governing the preparation and eligibility for the administration of comprehensive examination options are available in the Department Office. Departmental regulations concerning preparation of theses are also available in the office.

Within the context of the C D 669L clinical course,
(1) The student will complete a minimum of 25 hours of clinical experience under appropriate supervision with a client determined to be of a language or dialect different from that of the student clinician.
(2) Students who are bilingual and biliterate in English and another language may be eligible for clinical practice using their non-English language, within the C D 669L practicum.

Credential for Service in Public Education Speech-Language Pathology Services Credential (code 912)
Candidates must:
1. Complete the master’s degree in speech-language pathology.
2. Complete the following courses:
   - EDSP 350 Education of Exceptional Individuals (3)
     Prerequisites: None.
   - C D 575 Educational Topics in Speech-Language Pathology (2)
     Prerequisites: None.
   - C D 483 Assessment of Monolingual and Bilingual Clients (3)
     Prerequisites: C D 261, C D 271, C D 329, C D 330, C D 460.
   - C D 489 Management of Monolingual and Bilingual Clients (3)
     Prerequisites: C D 261, C D 271, C D 329, C D 456, C D 466, C D 476, C D 483
   - C D 686A Public School Practicum in Speech-Language Pathology (5)
     (in order to complete a minimum of 100 contact hours as a Speech-Language Specialist trainee in school setting)
     Prerequisites: Pass the CBEST, complete with a grade of "B" or higher all graduate seminars and all but one graduate clinic required for the Master's degree in CD, and department consent.

Speech-Language Pathology Courses (C D)

LOWER DIVISION

60. Selected Topics in Communicative Disorders (1)
Prerequisite: Consent of instructor.
Speech, language and hearing therapy to students enrolled in the University.
May be repeated to a maximum of 2 units. Topics announced in the Schedule of Classes.

261. Anatomy and Physiology of the Speech and Hearing Mechanism (3)
Anatomical, physiological and neurological components of the speech and hearing mechanism. Designed for students planning to enter the clinical program in communicative disorders.
Letter grade only (A-F).
271. Phonetics (3)
Phonetic basis of speech sounds and the various factors which influence pronunciation. Consideration is given to linguistic variations, regional dialects and standards.
Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)

UPPER DIVISION

329. Language Acquisition: From Birth Through Adolescence (3)
Prerequisite: CD 261, CD 271.
Introduction to language learning and its impact upon communication, socialization and literacy. Study of the form, content and use of language across time with an emphasis upon first language learning. Cognitive, cultural and emotional factors are considered.
Letter grade only (A-F). Not open for credit to students with credit in LING 329.

330. Speech and Hearing Science (3)
Prerequisites: CD 261 and CD 271.
Course Description: Examination of the anatomical, physiological, psychological and acoustic aspects of speech. Through readings, discussions, videos, and interactive software the student is expected to become more aware and analytical of the instrumentation and scientific basis of production and perception of speech.
Letter grade only (A-F). (Lecture/discussion)

373. Audiology I (3)
Prerequisite: CD 261, CD 271.
Introduction to audiology; acoustics, anatomy and physiology of the ear, pure-tone audiometry/masking, speech audiometry/masking, principles of taking a case history, and report writing.
Letter grade only (A-F).

440. Aural Rehabilitation for the Hearing Impaired (3)
Prerequisites: CD 261, CD 271, CD 373.
Nature of hearing impairment and impact on communicative function. Procedures for assessment and management of hearing loss, including amplification, counseling, and self-report scales. Focus is primarily adult clients but will include some information regarding children.
Letter grade only (A-F).

456. Speech Pathology I: Speech Sound Disorders (3)
Prerequisites: CD 261, CD 271, CD 329, CD 460.
Etiology, assessment and treatment of disorders of phonology.
Letter grade only (A-F).

460. Multicultural and Multilingual Issues in Speech-Language Pathology (3)
Provides understanding of non-discriminatory assessment process for linguistically and culturally diverse clients referred for speech-language assessment. Includes information relative to cultural differences, use of interpreters/translators, biases of assessment, and differential diagnoses, such as language disorder versus language difference.
Letter grade only (A-F).

462. Speech-Language Pathology Assistant (SLPA) Practicum (3)
Prerequisite: At least 33 units in communicative disorders competed with a grade of "B" or better.
For students interested in receiving a license to work as a SLPA. Weekly lectures covering the laws, practices and ethics governing SLPAs and 70 hours of supervised undergraduate clinical practicum.
Credit/no credit grading only. Course fee may be required.

464. Behavior Management and Counseling in Speech-Language Pathology (3)
Prerequisites: CD 261, CD 271, CD 329
The course provides entry-level knowledge in behavior management and counseling skills for speech-language pathologists. Students study prevention, identification and intervention for behavior problems and apply counseling theories and techniques to daily practice with individuals with communication disorders.
Letter grade only (A-F).

466. Speech Pathology II: Speech Motor Disorders (3)
Prerequisites: CD 261, CD 271, CD 330, CD 476.
Etiology, assessment, and therapy for disturbances of the speech motor system with emphasis on the neuroanatomical, neurophysiological, psychological, and linguistic variables correlated to aberrant behaviors.
Letter grade only (A-F).

472. Alternative and Augmentative Communication (3)
Prerequisites: CD 261, CD 271, CD 329, CD 464.
An understanding of relevant topics in alternative and augmentative communication (AAC), assistive technology (AT); assessment and management of patients with severe communication impairments. Topics will include a variety of disabilities in both pediatric and adult patients, across varying communication environments.
Letter grade only (A-F).

476. Speech Pathology III: Disorders of Voice/Oro-facial Mechanism (3)
Prerequisites: CD 261, CD 271, CD 329, CD 373.
Processes of phonation and resonance and their application to etiology, diagnosis and therapy of functional and organic voice disorders, such as those arising from laryngeal pathology, vocal abuse, neurological impairment, auditory impairment and oro-facial abnormalities.
Letter grade only (A-F).

477. Disorders of Swallowing (3)
Prerequisite: CD 261, CD 271.
Anatomy, physiology, and neuroanatomy of normal swallowing. Neurological and oncologic disorders which affect the swallow process. Evaluation of the patient with dysphagia will include clinical and instrumental analysis. Treatment plans based on history and evaluative results will be designed and examined.
Letter grade only (A-F).

481B. Speech Pathology IV: Disorders of Language Neuropathologies (3)
Prerequisites: CD 261, CD 271, CD 329, CD 483.
Neurophysiological and neurolinguistic basis for language and speech disorders associated with central nervous system pathologies. Provides for the recognition and understanding of variables for the assessment and clinical management of such disorders.
Letter grade only (A-F).

481A. Speech Pathology IV: Disorders of Language (3)
Prerequisites: CD 261, CD 271, CD 329, CD 456.
An analysis of the components of language and how each is involved with language disorders in children. Provide for the understanding and recognition of variables for the assessment and clinical management of such children.
Letter grade only (A-F).

481B. Speech Pathology IV: Disorders of Language (3)
Prerequisites: CD 261, CD 271, CD 329, CD 483.
Neurophysiological and neurolinguistic basis for language and speech disorders associated with central nervous system pathologies. Provides for the recognition and understanding of variables for the assessment and clinical management of such disorders.
Letter grade only (A-F).
483. Assessment of Monolingual and Bilingual Clients (3)  
Prerequisites: CD 261, CD 271, CD 329, CD 330, CD 460.  
Principles underlying assessment procedures in speech language disorders for both monolingual and bilingual clients. Focus is on the cultural and linguistic variables affecting standardized and non-standardized assessment procedures.  
Letter grade only (A-F). (Discussion 2 hours, laboratory 3 hours)  

485. Introduction to Autism Spectrum Disorders for Speech-Language Pathologists (3)  
Prerequisites: CD 261, CD 271, CD 329, CD 464, CD 483.  
Foundational areas prerequisite to understanding ASD including historical perspectives, diagnostic systems, theorized etiologies, and behavioral characteristics are differentiated. Components of early identification, social pragmatics of language acquisition, social-communication across age levels, and evidence-based assessment and interventions are examined.  
Letter grade only (A-F).  

489. Clinical Observations and Professional Writing for Prospective Speech-Language Pathologists (3)  
Prerequisites: CD 261, CD 271, CD 329, CD 456, CD 466, CD 476, CD 483.  
The course provides entry-level knowledge in professional writing for prospective speech-language pathologists. Students develop preliminary clinical skills on generating goals and objectives, report writing and documentation. Students also fulfill the ASHA requirements for 25 clinical observation hours.  
Letter grade only (A-F). (Discussion 2 hours, laboratory 3 hours)  

491. Proctoring in Communicative Disorders (2-3)  
Students shall engage in peer teaching and examination scoring in undergraduate courses under the specific direction of the course instructor.  
Open only to students who have achieved the grade of “A” in the course in which they are serving as proctor. May be repeated to a maximum of 6 units.  

499. Directed Studies in Communicative Disorders (1-3)  
Prerequisite: Consent of instructor.  
Independent study under supervision of a faculty member.  
May be repeated to a maximum of 6 units. Not acceptable for graduate credit toward the master’s degree.  

**GRADUATE LEVEL**  

575. Educational Topics in Speech-Language Pathology (2)  
Review current issues, legislation and the role of SLPs in public school settings, including service delivery, school reform, accountability, and eligibility criteria. Special consideration given to collaboration and the use of content standards in goal setting and curriculum intervention.  
Letter grade only (A-F).  

590. Selected Topics in Communicative Disorders (1-3)  
Topics from the most recent developments and issues in speech-language pathology and audiology.  
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.  

661. Traumatic Brain Injury Across the Lifespan (3)  
Prerequisite: CD 696.  
Neuropsychological basis for cognitive and communicative impairments associated with traumatic brain injury (TBI). Addresses rehabilitation research specific to TBI in children and adults.  
Letter grade only (A-F).  

662. Seminar in School-Age Language Disorders: Grade 1 through High School (3)  
Prerequisites: CD 456, CD 481A and CD 696.  
Components of spoken and written communication and language are examined in children and adolescents with diverse, academically-based language learning disabilities. Major approaches to literacy and curricular-based intervention explored.  
Letter grade only (A-F).  

663. Seminar in Preschool Language Disorders: 0-5 Years (3)  
Prerequisites: CD 456 and CD 481A.  
Corequisite: CD 696.  
Components of communication, language, speech and pre- and emergent literacy are examined in preschool children with diverse problems across all aspects of language learning. Evidence-based techniques and approaches to language intervention are explored.  
Letter grade only (A-F).  

665. Seminar in Language Disorders in Adults (3)  
Prerequisites: C D 481B, CD 696.  
Provides an understanding of neuropathological substrates of language disorders in adults resulting from brain damage. Provides for the recognition and assessment of the syndromology and clinical aspects of adult language disorders relative to current research.  
Letter grade only (A-F).  

666. Seminar in Motor Speech Disorders and Fluency Disorders (3)  
Prerequisites: C D 466, CD 696.  
Discuss etiology, associated speech characteristics, assessment, and management of motor speech disorders, including apraxia of speech and dysarthria, and fluency disorders. Emphasis on differential diagnosis, clinical decision making process and application of evidence-based treatment.  
Letter grade only (A-F).  

667. Seminar in Autism Spectrum Disorders (3)  
Prerequisite: CD 696.  
Historical perspectives, assessment procedures, intervention approaches, and parent training programs for management of clients diagnosed with Autism Spectrum Disorders.  
Letter grade only (A-F).  

668. Seminar in Dysphagia (2)  
Prerequisite(s): CD 477, CD 696  
This course is designed to enhance the knowledge of swallowing disorders in all age groups that result from a variety of medical conditions. Students will learn the techniques for assessing swallowing function and rehabilitation treatment approaches for dysphagia.  
Letter grade only (A-F).  

669A. Clinical Practice – Child-Adolescent Speech and Language Clinic (2)  
Prerequisites: C D 489.  
Prerequisite/Corequisites: C D 663 and consent of instructor. CD 669A is designed to bridge the gap between theory and practice through hands-on experience. Under supervision, students will conduct standardized and informal assessment, generate goals and objectives, develop and implement treatment plan, and write professional assessment and progress reports. Student conducts assessment of phonological disorders and  
Letter grade only (A-F). Course fee may be required.
669B. Clinical Practice – Autism Spectrum Disorders (2)
Prerequisite: C D 667.
Provides students with the opportunity to gain hands-on experience in assessing and managing clients diagnosed with Autism Spectrum Disorders. Letter grade only (A-F).
(2 hrs lecture, 2 hrs clinic) Course fee may be required.

669D. Clinical Practice with Voice and Oro-facial Mechanism Disorders (2)
Prerequisites: C D 669. Consent of instructor.
Student conducts therapy sessions under supervision for persons with functional and/or organic voice disorders. Practicum includes initial interviews, diagnostics, therapy program planning, counseling and report writing.
Letter grade only (A-F). Course fee may be required.

669H. Clinical Practice-Special Programs (2)
Prerequisites: At least one of the C D 669A through J courses.
Specialized practice placement to obtain experience with speech, language, and hearing disorders.
May be repeated to a maximum of 4 units. Letter grade only (A-F).
Course fee may be required.

669J. Clinical Practice - Adult Speech and Language Clinic (2)
Prerequisites: C D 489.
Prerequisite/Corequisites: C D 665 and consent of instructor.
CD 669J is for students to gain hands-on experience while working with individuals with acquired speech-language and/or cognitive-communication disorders resulting from various neurogenic disorders. Practicum includes assessment, treatment planning, report writing, and application of research findings to clinical process.
Letter grade only (A-F). Course fee may be required.

669L. Clinical Practice with Culturally and Linguistically Diverse Clients (2)
Prerequisites:
1) Completion of all disorder-specific graduate seminars;
2) completion of a minimum of 3 core clinics (C D 669 A-J);
3) C D 483 and CD 489, or equivalent as approved by the instructor) and consent of instructor.
Assessment/management of speech-language disorders in clients whose native language is different than that of the clinician. Training of bilingual interpreters.
Minimum 25 clock hours required. Letter grade only (A-F). Course fee may be required.

670. Medical Internship in Speech and Language Pathology (5)
Prerequisites: Complete with a grade of "B" or higher all graduate seminars for the Master's degree in CD and all graduate clinics applicable to specific field placement (as determined by Instructor), and Department consent.
Advanced clinical supervised practice with speech and language disordered persons in either a hospital, rehabilitation agency or speech and language center.
Letter grade only (A-F). Course fee may be required.

680. Internship in Audiology (5)
Prerequisites: C D 669A or CD 669B or CD 669C or consent of the instructor.
Advanced clinical practice in audiology with hearing impaired persons in a community facility.
Letter grade only (A-F). Course fee may be required.

686A. Public School Practicum in Speech-Language Pathology (5)
Prerequisites: Pass the CBEST, complete with a grade of "B" or higher all graduate seminars and all but one graduate clinic required for the Master's degree in CD, and department consent
Speech-Language Pathology Services Credential (SLPSC) candidates participate in supervised clinical practicum in an off-campus itinerant speech and language setting(s) for the equivalent of one semester earning 5 units of field study. (Required only for SLPSC credential.)
Enrollment by application to the Communicative Disorders Department only. Credit/No Credit grading only. Course fee may be required. (Fieldwork)

695. Directed Readings (1-3)
Prerequisite: Consent of instructor.
Readings in communication sciences/disorders.
Required of all candidates for the master's degree not electing the thesis option. Under special circumstances, may be repeated to a maximum of 6 units. Letter grade only (A-F).

696. Research Methods: Applied and Basic (3)
Prerequisite: PSY 110 or equivalent or consent of instructor.
Professional issues related to research and clinical settings. Application of scientific method, experimental design (group and single subject) and related statistical methods (parametric and non-parametric). Evaluate literature in the field.
(Lecture 3 hours.) Letter grade only (A-F).

697. Directed Research (1-3)
Prerequisite/Corequisites: C D 696 and consent of instructor.
Independent research under supervision of a faculty member.
Letter grade only (A-F).

698. Thesis (1-4)
Prerequisites: Advancement to candidacy for master’s degree. Preparation, completion and submission of an acceptable thesis in partial fulfillment of the requirements for the master’s degree.
Students registering for SRL 210 must attend regular practices and competitions, assist the club with fund raisers and adhere to club rules and regulations. For information on practice times and meeting locations, contact the individual club coach or president. Visit the Club Sports and Recreation website (www.csulb.edu/recsports) or visit the Recreational Sports Office (KIN Building, Rm 20A). In addition to participation in club sport activities, students may receive credit for leadership training and service performed with some university-sponsored programs by registering in SRL 210L.

Students may apply no more than four (4) semester units of lower-division SRL courses toward the baccalaureate degree within the 20-unit maximum on activity units.

The California State University is committed to providing equal opportunities to men and women in all campus programs, including intercollegiate athletics. For a listing of Intercollegiate Athletic teams, visit longbeachstate.com.

Courses (SRL)

200. Intramural Activities (1)
Repeatable credits include previous credits from SAR 200.

210 A-W. Sport Clubs/Leadership (1)
Prerequisite: Participation/competition in sport clubs/leadership. Enrollment subject to consent of instructor or Director of Club Sports and Recreation.

Athletes enrolled who fail to qualify for squad must withdraw from the course. It is the student’s responsibility to contact teams regarding practice times and eligibility requirements. May be repeated to a maximum of 4 units, including previously earned credits from SAR 210. Credit/No Credit grading only.

A. Archery
B. Crew
C. Ice Hockey
D. Martial Arts
E. Rugby
F. Sailing
G. Ski and Snowboard
H. Crew
I. Soccer
J. Water Ski
K. Leadership
L. Lacrosse
M. Wakeboard and Waterski
N. Paintball
O. Roller Hockey
P. Cultural Dances
Q. Ultimate Frisbee
R. Volleyball
S. Running
T. Water Polo
U. Bowling

Aikido | Alpine Ski-Snowboard | Archery
---|---|---
Baseball | Bellydancing | Bowling
Boxing | Breakdancing | Cheer
Cinematic Martial Arts | Crew | Cycling
Dragon Boat Racing | Field Hockey | Fishing
Florica Mexica | Folklorica | Gymnastics
Ice Hockey | Jiu Jitsu | Juggling
Kendo | Kung Fu | Lacrosse
Longboard | Paintball | Rollerhockey
Rugby | Running | Sailing
Salsa | Shotokan Karate | Soccer
Social Dance | Surfing | Sword Club
Table Tennis | Tennis | Triathlon
Ultimate Frisbee | Volleyball | Water Polo
Waterski/Wakeboard | Wheelchair Sports | Wrestling
Yoga/Wellness | |
Multiple Subject Credential Program Structure

The MSCP is a 40-unit program separated into three successive phases. Students must complete each phase before advancing to the next one.

- **Phase One** - Students complete program prerequisites (and may take any or all corequisites) and submit applications. Subject matter competence must be demonstrated at the time of application to the program by submission of a passing score on all three sections of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).

- **Phase Two** - Students complete professional preparation courses (in the MSCP) with a grade point average of 3.0 in all subject specific pedagogy (methods) courses with no grade lower than "C."

- **Phase Three** - Students must complete student teaching.

For program information and advisement, contact the Teacher Preparation Advising Center (EED-67; 562/985-1105) or visit the website: www.ced.csulb.edu/tpac

**Preliminary Credential**

Successful completion of any track in the Multiple Subject Credential Program leads to the Preliminary Credential, which is valid for five years. Requirements for the Preliminary Credential are:

1. Hold a bachelor’s degree from an accredited institution.
2. Satisfy the U. S. Constitution requirement (POSC 100 or POSC 391 or equivalent course from another institution or exam).
3. Pass California Basic Educational Skills Test (a test of basic reading, writing and math) or CTC-approved alternative exam.
5. Demonstrate Level I computer technology competence (embedded in program course work).
6. Demonstrate subject matter competence by passing the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
7. Complete professional preparation courses (in the MSCP) with a grade point average of 3.0 in all subject specific pedagogy (methods) courses with no grade lower than "C."
8. Successfully complete student teaching.
9. Pass the Reading Instruction Competence Assessment (RICA) exam.
10. Pass the California Teaching Performance Assessment (CalTPA).
11. For Bilingual Authorization candidates only: Demonstrate competence in specialized pedagogy, knowledge of the target culture, and proficiency in the target language. The culture knowledge and target language proficiency requirements may be met through course work or state-approved exams.

**Clear Credential**

The Preliminary Credential is valid for five years from the date of issuance and is not renewable. During the first five years of teaching, teachers earn the clear credential through their district-sponsored Induction Program.

The MSCP is a 40-unit program separated into three successive phases. Students must complete each phase before advancing to the next one.

- **Phase One** - Students complete program prerequisites (and may take any or all corequisites) and submit applications. Subject matter competence must be demonstrated at the time of application to the program by submission of a passing score on all three sections of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
Subjects (CSET: Multiple Subjects).
• Phase Two - Students complete corequisite courses and five subject specific pedagogy courses.
• Phase Three - Students complete student teaching.

Admission to the University

Admission to the university and the MSCP are two separate processes. Applications to the university are made on-line through CSU Mentor (www.csumentor.edu). Graduating seniors, transfer students, and returning students should apply for post-baccalaureate admission to the university with the objective of entering the credential program (identify the program objective as Multiple Subject Credential). Admission to the university does not constitute admission to the program.

Admission to the Program

Matriculated students may be admitted to the program based on their current undergraduate or graduate status. Pre-program advisement and brochure materials are available in the Teacher Preparation Advising Center (ED1-67). Prospective candidates may obtain a program application from the website at www.ced.csulb.edu/mscp. Prospective candidates are encouraged to attend a program information meeting (see schedule at www.ced.csulb.edu/mscp). Candidates are required to comply with all program policies and procedures detailed in the MSCP Handbook, which is available online at www.ced.csulb.edu/mscp.

Candidates in the Multiple Subject (post-baccalaureate), Intern, or ITEP tracks who wish to add a Bilingual Authorization to their credential must meet with the appropriate language advisor to discuss requirements for the language authorizations in Spanish, Korean, Mandarin, or Vietnamese.

Candidates for the post-credential Bilingual Authorization must possess a valid SB 2042 teaching credential OR a valid Ryan teaching credential with CLAD authorization OR the equivalent. They should consult the Bilingual Authorization advisor to plan their course of study.

Program Admission Requirements

1. Complete all prerequisite courses in one of the four MSCP tracks, with a minimum grade of "B" in EDEL 380 and no grade lower than "C" in any other prerequisite or corequisite course.
2. Attain a grade point average of at least 2.67 in all baccalaureate and post-baccalaureate course work or a grade point average of at least 2.75 in the last 60 semester or 90-quarter units attempted.
3. Complete and pass an interview with a department faculty member.
4. Submit two (2) letters of recommendation.
5. Submit EDEL 380 Final Fieldwork Evaluation or Approved EDEL 380 Waiver Petition, or a third letter of recommendation.
6. Submit a typed personal statement describing why you have chosen teaching as a career, what you hope to accomplish as a teacher, and how you view the role of the teacher.
7. Submit a negative tuberculosis skin test taken within the last four (4) years or chest X-ray taken within the last eight (8) years. Tuberculosis clearance must be valid through student teaching.
8. Submit one photocopy of all university and/or college transcripts.
9. Submit proof of meeting the Basic Skills Requirement. For information regarding CBEST visit www.cbest.nesinc.com. (CBEST attempt or other CTC Approved alternative)
10. Submit proof of having demonstrated subject matter competence by passing all three subtests of the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects)
11. Attach a copy of a current Certificate of Clearance or a photocopy of a current California emergency/substitute teaching permit.
12. Demonstrate ability to communicate orally in English at the level required of public school teachers by demonstration of English production skills in the course EDEL 380 (EDEL 200 for ITEP candidates) and through an oral interview with department faculty. Bilingual Authorization candidates complete a bilingual interview in English and the target language.
13. Demonstrate character and personality traits that satisfy the standards of the teaching profession and suitable aptitude for teaching in public schools through the application documentation, the personal interview, and performance in the course EDEL 380. Candidates must continue to demonstrate appropriate character and personality traits through completion of the program.
14. Submit the application packet, including documentation, by April 1st to begin pedagogy courses in summer, June 1st to begin pedagogy courses in fall, OR by November 1st to begin pedagogy courses in winter or spring terms. Applications will be accepted after the deadling on a space availability basis.

Student Teaching

The final phase of the MSCP is student teaching. For some candidates, student teaching is a full-time five days per week experience for the length of the university semester. Candidates in alternative programs may have different student teaching schedules. All student teachers have one placement in a K-2 classroom where they gain experience with early literacy instruction utilizing a balanced and comprehensive approach to reading. The other placement is in an intermediate classroom (grades 3-6) or in a middle school classroom (grades 6-8). One student teaching placement must be in a public school. There are several ways to complete student teaching: one regular semester, two semesters, two consecutive summers, one entire summer, or one summer and part of one regular semester. Candidates should be aware that there is limited availability in the summer and all requests may not be accommodated. A separate application is required to advance to student teaching. Applications for student teaching must be submitted in person to the Office of Clinical Practice one semester prior to the first assignment. Application packets are available at www.ced.csulb.edu/fpo. Deadlines for submitting applications to student teach are:

- April 1 - for Summer/Fall Student Teaching
- November 1 - for Spring Student Teaching

Students should note that these deadlines are firm. Late applications are not accepted.
Advancement to Student Teaching Requirements

Students must meet the following requirements to advance to student teaching:

1. Completion of all program prerequisite, corequisite and subject specific pedagogy requirements in Phases 1 and 2 of one of the MSCP tracks. Students must complete all five subject specific pedagogy (methods) courses with a 3.0 grade point average and no grade lower than "C." A grade of "D" or "F" in a program course will result in being placed on academic probation. In addition, EDEL 413 and 431 must be completed with a "C" grade or better. The overall grade point average must continue to meet the program admission standard.

2. Passage of the California Basic Educational Skills Test (CBEST) or CTC-approved alternative.

3. A negative tuberculosis skin test or chest x-ray valid through completion of student teaching.


5. Bilingual Authorization candidates must meet additional bilingual authorization pedagogy and culture of emphasis requirements (see Track 4, below).

6. Submission of a student teaching application by the appropriate deadline.

Track One - Preliminary Multiple Subject Credential Program

The Preliminary credential is the basic Multiple Subject Credential. This track is comprised of foundational and subject specific pedagogy course work followed by the student teaching semester.

Prerequisites

Take the following courses concurrently:
- EDEL 380 Teaching and Learning in a Democratic Society (3)
  Corequisites: EDSP 303.
- EDSP 303 Preparing to Teach Special Populations in the General Education Classroom (1)
  Prerequisites: Concurrent enrollment in EDEL 380.

Corequisites

May be taken prior to or after admission to the MSCP, but must be competed prior to student teaching:
- EDEL 413 Developmentally Appropriate Teaching Practices (2)
  Prerequisites: None.
- EDEL 431 Cultural and Linguistic Diversity in Schools (3)
  Prerequisites: None.

Subject Specific Pedagogy (Teaching Methods)

Students must be officially admitted to the MSCP to take these courses:
- EDEL 442 Teaching and Learning Language Arts, K-8 (RICA) (3)
  Prerequisites: Admission to the Multiple Subject Credential Program.
- EDEL 452 Teaching and Learning Reading K - 8 (RICA) (3)
  Prerequisite: Admission to the Multiple Subject Credential Program or Education Specialist Credential Program.
- EDEL 462 Teaching and Learning Mathematics, K-8 (3)
  Prerequisites: Admission to the Multiple Subject Credential Program.
- EDEL 472 Teaching and Learning History/Social Science, K-8 (3)

Student Teaching

All requirements for advancement to student teaching must be met: EDEL 482A Student Teaching (16)

Track Two - Multiple Subject Internship

The intern program is for full-time teachers in districts with which CSULB has a contractual intern agreement. All students in this program must be employed by the district as the full-time teacher of record in a multiple subject classroom and have met all program and intern program admission requirements. The program requires 24 units of foundational and subject specific course work followed by 16 units of intern teaching.

Application Requirements

1. Hold a Bachelor’s degree from an accredited institution.
2. Demonstrate subject matter competence by passing the California Subject Examinations for Teachers: Multiple Subjects (CSET: Multiple Subjects).
3. Meet the U.S. Constitution requirement (by course work or exam).
4. Pass the CBEST (or CTC-approved alternative).
5. Be assigned full-time to a self-contained K-8 multiple subject classroom in a partner school district.
6. Meet the program grade point average requirement of 2.67 overall or 2.75 in the last 60 semester or 90 quarter units.
7. Complete MSCP prerequisite and corequisite courses.
8. Become officially admitted to the Multiple Subject Credential Program.
9. Complete an interview with the Intern Program Director.

Prerequisites (12 units)

- EDEL 380 Teaching & Learning in a Democratic Society (3)
- EDSP 303 Preparing to Teach Special Populations in the General Education Classroom (1)
  Prerequisites: Concurrent enrollment in EDEL 380.
- EDEL 472 Teaching & Learning History/Social Science in K-8 (3)
- EDEL 482A Multiple Subject Internship (8)

Subject Specific Pedagogy (15 units)

- EDEL 442 Teaching & Learning Language Arts, K-8 (RICA) (3)
- EDEL 452 Teaching & Learning Reading K - 8 (RICA) (3)
- EDEL 462 Teaching & Learning Mathematics, K-8 (3)
- EDEL 472 Teaching & Learning History/Social Science, K-8 (3)
- SCED 475 Teaching and Learning Science, K-8 (3)

Student Teaching

All requirements for advancement to student teaching must be met:
- EDEL 572A Multiple Subject Internship (8)
and advancement to Intern Student Teaching.

EDEL 572B Multiple Subject Internship (8)
Prerequisites: Admission to 2042 Multiple Subject Internship and advancement to Intern Student Teaching.

Note: Interns must apply to student teach by the November 1 deadline for spring and the April 1 deadline for summer and fall.

Additional Requirements for Bilingual Authorization Interns

Bilingual Authorization Interns should refer to Track 4, below, for pedagogy and culture of emphasis requirements.

Early Completion Intern Option

The Early Completion Intern Option allows qualified candidates to challenge the course work portion of the internship program and demonstrate their pedagogical skills by passage of the California Teaching Performance Assessment while serving as an intern. See an advisor in the Teacher Preparation Advising Center for details.

Track Three - Integrated Teacher Education Program

For the Integrated Teacher Education Program (ITEP) requirements, please refer to the Liberal Studies section of this catalog.

Track Four - Bilingual Authorization in Spanish and Asian Languages

The Bilingual Authorization track prepares Multiple Subject teachers to work in dual language classrooms, English development classrooms, or where a language other than English is required for instruction, support, and communication with parents and other professional communication. With appropriate substitutions and/or additional course work, Bilingual Authorization may be added to the Preliminary credential. Candidates must demonstrate knowledge of the target culture, specific pedagogical skills, and fluency in speaking, listening, reading and writing in the target language. The program prepares candidates for Bilingual Authorization in four languages: Spanish, Korean, Mandarin, and Vietnamese.

Prerequisites

Same (4 units) as for Track One in the Preliminary credential program.

Corequisites

Same (5 units) as for Track One in the Preliminary credential program.

Subject Specific Pedagogy

Same (15 units) as for Track One in the Preliminary credential program, with the addition of one of the following:

Spanish: EDEL 453S - Methodology for Spanish and English Instruction in a Bilingual Setting (3)
Prerequisites: None.

Korean: EDEL 453K - Methodology for Korean and English Instruction in a Bilingual Setting (3)
Prerequisites: None.

Mandarin: EDEL 453M - Methodology for Mandarin and English Instruction in a Bilingual Setting (3)
Prerequisites: None.

Vietnamese: EDEL 453V - Methodology for Vietnamese and English Instruction in a Bilingual Setting (3)
Prerequisites: None.

Culture of Emphasis

For MSCP and Intern track students, the culture of emphasis component is met through one of the following courses or the appropriate CSET: LOTE V exam:

Spanish: CHLS 340 - Latino Education in the U.S. (3)
Prerequisites: None.

Korean: EDEL 455K - Teaching the Korean American Bicultural Student (3)
Prerequisites: None.

Mandarin: EDEL 455C - Teaching the Chinese American Bicultural Student (3)
Prerequisites: None.

Vietnamese: EDEL 455V - Teaching the Vietnamese American Bicultural Student (3)
Prerequisites: None.

Language of Emphasis

All Bilingual Authorization candidates must demonstrate target language proficiency by passing the appropriate CSET: LOTE Subtest III (language and communication) prior to completion of the program. See the program advisor for recommended courses to prepare for the exam.

Student Teaching

All MSCP program requirements and additional Bilingual Authorization requirements for advancement to student teaching must be met: EDEL 482A Student Teaching (16)

Petition Process

Appeals to program decisions or requests for policy waivers are made by filing a written appeal to the Department of Teacher Education Admissions and Standards Committee. The committee reviews the written petition and supporting documentation and renders a decision. Examples of petitions typically reviewed are: waive a deadline for submission of a test score, waive an application deadline, and readmission to student teaching. Decisions of the committee are final. Students follow university policy to appeal a course final grade.

Reading Certificate (code 415)

This certificate is granted by the California Commission on Teacher Credentialing (CCTC).

The Reading Certificate provides classroom teachers with advanced preparation in reading/language arts assessment and instruction, as well as theory and research in teaching reading, grades K-12. Some candidates may wish to complete the 12-unit Reading Certificate program as a terminal objective.

The state requires that a candidate must have three years of teaching experience prior to recommendation for the Reading Certificate.

Prerequisites

See website at http://www.ccpe.csulb.edu

Application

See website at http://www.ccpe.csulb.edu
Requirements

Take all of the following:

EDRG 540 Advanced Studies in Literacy (3)
Prerequisite: A valid teaching credential or admission to an approved masters, certificate, or advanced credential program; or consent of instructor.

EDRG 551 Assessment and Instruction in Reading and Writing (3)
Prerequisites: Admission to Reading Certificate Program or consent of instructor.

EDRG 558 Language Study for Reading Teachers (3)
Prerequisites: EDRG 540 and admission to the Reading Certificate program or consent of instructor.

EDRG 559 Practicum Teaching Reading/Language Arts (3)
Prerequisites: EDRG 551 and admission to the Reading Certificate program or consent of instructor.

Master of Arts in Education

Candidates for Master's programs must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

Program application deadlines may vary. Visit the College of Education website for specific program details, application guidelines and materials, and application deadlines (www.ced.csulb.edu). All university regulations governing the master's degree apply to college programs. Program requirements published in the university catalog in effect during the year a candidate advances to candidacy are the requirements the candidate will be held to (catalog rights). Candidates may take up to 30% of coursework that can be applied to the Master's program prior to program entry (units must be taken at postbaccalaureate level).

Option in Curriculum and Instruction, Elementary Education

The Master of Arts in Education, Option in Curriculum and Instruction, Elementary Education (30-33 units) is designed to foster the development of educators who are caring, effective, reflective, and committed to improving their schools. Coursework prepares teachers to apply theoretical insights and research findings to the practical problems they encounter in their work in curriculum and instruction. Visit the program website for program details (www.ced.csulb.edu/teacher-ed/academic/c-i).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. A valid teaching credential or by consent of the program coordinator.
4. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts from each college and university attended must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

The Curriculum and Instruction, Elementary Education Program application must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program with Classified Admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. They should meet with the program coordinator to plan their program. For Advancement to Candidacy (Clear Admission status), students must:

1. Be enrolled in the university
2. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
3. Fulfill all program prerequisite and admission requirements.
4. Resolve all incomplete grades.
5. Complete 6 units of Programs requirements
6. Maintain a 3.0 grade point average.
7. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements

1. Methods of Social Science Inquiry (6 units):
   Take the following:
   EDP 400 Introduction to Educational Research (3)
   Prerequisites: None.
   EDCI 533 Action Research Methods: Teachers as Inquirers (3)
   Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor.

2. Core (12 units):
   Take all of the following:
   EDCI 500 Studies in Curriculum and Instruction (3)
   Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor. Must be taken during the first or second semester in the Master's Program.
   EDCI 505 History of Education in the United States (3)
   Prerequisites: Admission to an approved masters program or consent of the instructor. Must be taken during the first or second semester.
   EDCI 530 Cross-cultural Education: US and Global Perspectives (3)
4. Capstone (choose A or B option in consultation with the program advisor, department chair and associate dean.): 
   A. Research methods courses in preparation for the thesis (9 units):
      - EDP 520: Quantitative Research Methods in Education (3 units)
      - EDP 595: Qualitative Research Methods in Education (3 units)
      - EDP 596: Program Evaluation in Education (3 units)
   B. Coursework in Teaching Methods, if not previously taken for B.S. or B.A. credit (9 units):
      - EDEL 431: Cultural and Linguistic Diversity in Schools (3 units)
      - EDEL 452: Teaching and Learning Reading, K-8 (3 units)
      - EDEL 472: Teaching and Learning History-Social Science (3 units)
   C. Advanced coursework in a self-selected concentration chosen in consultation with the program advisor (9 units).

3. Concentration (9 units): Candidates select an area of concentration, in consultation with the program advisor, tailored to their professional goals. Candidates are responsible for taking prerequisite courses if required. The concentration may be in one of the following patterns:

   A. Research methods courses in preparation for the thesis (9 units):
      - EDP 520: Quantitative Research Methods in Education (3 units)
      - EDP 595: Qualitative Research Methods in Education (3 units)
      - EDP 596: Program Evaluation in Education (3 units)
   B. Coursework in Teaching Methods, if not previously taken for B.S. or B.A. credit (9 units):
      - EDEL 431: Cultural and Linguistic Diversity in Schools (3 units)
      - EDEL 452: Teaching and Learning Reading, K-8 (3 units)
      - EDEL 472: Teaching and Learning History-Social Science (3 units)
   C. Advanced coursework in a self-selected concentration chosen in consultation with the program advisor (9 units).

4. Capstone (choose A or B option in consultation with the program advisor): 
   A. Comprehensive Examination and the following:
      - EDCI 695 Seminar in Curriculum and Instruction (3) (to be taken in final semester)
      - EDCI 500: Studies in Curriculum and Instruction (3)
      - EDCI 505: History of Education in the United States (3)
      - EDCI 530: Cross-cultural Education: US and Global Education (3 units)
   B. Thesis and the following:
      - EDCI 698 Thesis Study in Curriculum & Instruction (6 units)
      - EDCI 699 Thesis in Curriculum & Instruction (3 units)
      - EDCI 500 Studies in Curriculum and Instruction (3)
      - EDCI 505 History of Education in the United States (3)
      - EDCI 533 Action Research Methods: Teachers as Inquirers (3 units)

Option in Curriculum and Instruction, Secondary Education

The Master of Arts in Education, Option in Curriculum and Instruction, Secondary Education (30-33 units) is designed to foster the development of educators who are caring, effective, reflective, and committed to improving their schools. Coursework prepares teachers to apply theoretical insights and research findings to the practical problems they encounter in their work in curriculum and instruction. Visit the program website for program details (www.ced.csulb.edu/teacher-ed/academic/c-i).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. A valid teaching credential or by consent of the program coordinator.
4. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

The Curriculum and Instruction, Secondary Education Program application must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. They should meet with the program coordinator to plan their program. For Advancement to Candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Resolve all incomplete grades.
3. Complete 6 units of Program Requirements.
4. Maintain a 3.0 grade point average.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements

1. Methods of social science inquiry (6 units):
   - EDP 400 Introduction to Educational Research (3)
     Prerequisites: None.
   - EDCI 533 Action Research Methods: Teachers as Inquirers (3 units)
     Prerequisite: Admission to the Curriculum and Instruction Master’s Program or consent of instructor

2. Core (12 units):
   - EDCI 500 Studies in Curriculum and Instruction (3)
     Prerequisite: Admission to the Curriculum and Instruction Master’s Program or consent of instructor. Must be taken during the first or second semester in the Master's Program.
   - EDCI 505 History of Education in the United States (3)
     Prerequisites: Admission to an approved masters program or consent of the instructor. Must be taken during the first or second semester.
   - EDCI 530 Cross-cultural Education: US and Global
Option in Dual Language Development

The Master of Arts in Education, Option in Dual Language Development (30-33 units) focuses on bilingualism in school and societal contexts. The program, through its action research approach, seeks to develop a cadre of teacher-leaders who systematically and purposefully examine and refine their own pedagogy with respect to the instruction of language minority students. Visit the program website for program details (www.ced.csulb.edu/teacher-ed/academic/dld).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. A valid teaching credential with BCLAD/CLAD emphasis or certification, or by consent of the program coordinator.
4. Demonstration of bilingual proficiency or six (6) college semester units of a language other than English, or verified equivalent.
5. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts from each college and university attended in a timely manner will result in a delayed review of the application.

The Dual Language Development program application must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. They should meet with the program coordinator to plan their program.

For Advancement to Candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Resolve all incomplete grades.
3. Complete 6 units of program requirements.
4. Maintain a 3.0 grade point average.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.
Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 3.00 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education. Applicants whose overall GPA is less than 3.00 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.
3. EDP 301 or HDEV 307 or PSY 361.
4. EDEL 420.
   Prerequisites: None.
5. EDEL 482A or one year of documented and approved teaching experience.
6. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

For Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts from each college and university attended must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

The Early Childhood Education program application must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. They should meet with the program coordinator to plan their program.

For Advancement to Candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Resolve all incomplete grades.
3. Complete 6 units of program requirements.
4. Maintain a 3.0 grade point average.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.
Requirements

1. Research methods (6 units):
   Take the following:
   - EDP 400 Introduction to Educational Research (3)
     Prerequisites: None.
   - Take one of the following:
     - EDP 520 (for Comprehensive Examination track) (3)
       Prerequisites: EDP 400 or equivalent.
     - EDP 595 or EDP 696 (for Thesis track) (3)
       Prerequisites EDP 400 or equivalent.

2. Core courses (21 units):
   Take all of the following:
   - EDEC 520 Early Childhood Curriculum and Assessment: Critical Perspectives (3)
     Prerequisites: None.
   - EDEC 521 Historical and Contemporary Perspectives in Early Childhood (3)
     Prerequisites: None.
   - EDEC 522 Parent Education and Involvement in Educational Environments (3)
     Prerequisites: None.
   - EDEC 523 Leadership, Advocacy and Supervision of Early Childhood Programs (3)
     Prerequisites: None.
   - EDEC 526 Adv Study of Infant & Toddler Programs (3)
     Prerequisites: EDP 301 or consent of instructor.
   - EDEC 621 Research in Early Childhood Education (3)
     Prerequisites: EDP 400 and teaching experience.
   - EDEC 622 Seminar in Early Childhood Care and Education: International Perspectives (3)
     Prerequisites: None.

3. One of the following chosen with program advisor consultation:
   - Comprehensive Examination and EDEC 695 (3 units)
   - Thesis and EDEC 698 (6 units)

Option in Mathematics Education

The Master of Arts in Education, Option in Mathematics Education is designed for teachers seeking to enhance their knowledge and skills in mathematics content and pedagogy. Candidates investigate research-based mathematics teaching and learning with a focus on developing their ability to assess the learning needs of diverse students, support students in achieving mathematics proficiency, integrate technology in mathematics instruction, and develop a balanced mathematics instructional program that focuses on conceptual understanding, procedural fluency, and problem solving. Visit the program website for program details (www.ced.csulb.edu/programs/mathematics-education).

Prerequisites

The following are required for admission to the program:

1. Baccalaureate degree from an accredited college or university.
2. Minimum 2.85 overall grade point average in last degree (not credential or certificate) earned from an accredited institution of higher education.

Applicants whose overall GPA is less than 2.85 but meet the University minimum GPA requirement and who present compelling evidence of academic and professional potential either through recent academic performance and/or experiential background, may be considered for admission at the discretion of the program admission committee.

3. A valid teaching credential (may be waived by program coordinator).
4. Six (6) units in teaching mathematics (may be waived by program coordinator).
5. International applicants have additional university application requirements including meeting the English language proficiency requirement. Please visit The Center for International Education (CIE) website at www.csulb.edu/cie for more information.

Application

Candidates must apply separately to both the university and the program by posted deadlines. Applications should be submitted at the same time.

The application for Graduate Admission to the University is available online through CSUMentor (www.csumentor.edu). One complete set of official transcripts from each college and university attended must be submitted with the university application. This set of transcripts will be used to determine grade point average eligibility. Failure to submit transcripts in a timely manner will result in a delayed review of the application.

The Mathematics Education program application must be submitted to the College of Education Graduate Studies Office (EED-7). An application and directions can be downloaded at www.ced.csulb.edu/graduate/application-packets. The program application does not require a set of transcripts.

Classified Admission

Successful applicants are admitted to the program with Classified admission status.

Advancement to Candidacy - Clear Admission

Students should advance to candidacy as early as possible. They should meet with the program coordinator to plan their program. For Advancement to Candidacy (Clear Admission status), students must:

1. Fulfill the campus Graduation Writing Assessment Requirement (GWAR).
2. Resolve all incomplete grades.
3. Complete 6 units of program requirements.
4. Maintain a 3.0 grade point average.
5. Submit to the Graduate Studies Office an Advancement to Candidacy form signed by the program advisor.

Requirements

1. Research and Methods (6 units).
   Take the following:
   - EDM 501 Assessment in Teaching/Learning Math (3)
     Prerequisite: Basic teaching credential or consent of instructor.
   - EDM 502 Research in Math Teaching/Learning (3)
     Prerequisite: Basic teaching credential or consent of instructor.

2. Core (9 units).
   Take one of the following:
   - EDM 500 Contemporary Issues in Math Education (3)
     Prerequisite: Basic teaching credential or consent of instructor.
Career Technical Education Track (CTE)

This program is "Approved-Inactive" by the CA Commission on Teacher Credentialing, and is not currently accepting any new students.

The Career Technical Education track is a 13-17 unit Clear credential program comprised of Early Orientation (one 2-unit course), Initial Preparation (9 units in 4 core courses plus two 1-unit courses of supervised field practica), and Advanced Preparation (one 3-unit course and one 1-unit course of supervised field practicum; or completion of one of the options described below). A minimum grade of "C" is required in all courses to maintain program standing.

Candidates complete the Initial Preparation in two semesters of course work and supervised fieldwork, after which they are eligible for Advanced Preparation. The Advanced Preparation requirement can be met in any of 5 ways: (1) 4 units of course work, including a supervised field practicum; (2) completion of a BTSA/Induction program; (3) two years of documented successful teaching; (4) completion of another appropriate credential program, e.g., Single Subject; (5) completion of a Designated Subjects track in Supervision and Coordination of Teaching. Candidates must complete all Initial and Advanced preparation requirements for the Clear credential within three years of obtaining the Preliminary credential. Candidates will determine how to meet the Advanced Preparation requirement in consultation with the program advisor as they develop their individual education plan.

Program Courses

Initial Preparation

Early Orientation (two units; completed prior to or during first semester)

1. CTED 400 Early Orientation to Career Technical Education (2)
   Prerequisite: Preliminary Designated Subjects Career Technical Education credential and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator.

Semester 1 (6 units):

2. CTED 401A Curriculum, Instruction, and Assessment in Career Technical Education (3)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401B.

3. CTED 401B Field Practicum in Career Technical Education I (1)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401A.

4. CTED 402 Effective Learning Environments in Career Technical Education (2)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401A and CTED 401B.

Semester 2 (5 units):

5. CTED 403A Foundations of Career Technical Education (2)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403B.

6. CTED 403B Field Practicum in Career Technical Education II (1)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403A.

7. CTED 404 Addressing the Needs of All Learners in Career Technical Education (2)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403A, CTED 403B.

Advanced Preparation

Semester 3:

8. CTED 405A Advanced Preparation in Career Technical Education (3)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 405B.

AND

CTED 405B Field Practicum in Career Technical Education III (1)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program;

MTED 511 Mathematics Teaching and Learning (3)
   Prerequisites: Consent of instructor.

Take the following:

EDME 505 Technology in Teaching/Learning Math (3)
   Prerequisites: Basic teaching credential, EDME 501 and EDME 502 or equivalent, or consent of instructor.

EDME 550 Global Perspectives in Math Teaching (3)
   Prerequisite: Basic teaching credential or consent of instructor.

3. Concentration (12 units).
Take all of the following:

MTED 500 Advanced Perspectives of Concepts Foundational to Algebra for Teachers (3)
   Prerequisites: Multiple Subjects Credential, or consent of instructor.

EDME 503 Advanced Math Methods in Teaching, 1 (3)
   Prerequisite: Basic teaching credential or consent of instructor.

EDME 504 Advanced Math Methods in Teaching, 2 (3)
   Prerequisite: Basic teaching credential or consent of instructor.

EDME 520 Algebra: Research-Based Pedagogy (3)
   Prerequisite: Basic teaching credential or consent of instructor.

4. Capstone Requirement (3-6 units)
One of the following chosen in consultation with an advisor:

Thesis and EDME 695 (3 units)
Comprehensive Examination and EDME 698 (6 units)

Career Technical Education Track (CTE)

3. Concentration (12 units).
Take all of the following:

MTED 500 Advanced Perspectives of Concepts Foundational to Algebra for Teachers (3)
   Prerequisites: Multiple Subjects Credential, or consent of instructor.

EDME 503 Advanced Math Methods in Teaching, 1 (3)
   Prerequisite: Basic teaching credential or consent of instructor.

EDME 504 Advanced Math Methods in Teaching, 2 (3)
   Prerequisite: Basic teaching credential or consent of instructor.

EDME 520 Algebra: Research-Based Pedagogy (3)
   Prerequisite: Basic teaching credential or consent of instructor.

4. Capstone Requirement (3-6 units)
One of the following chosen in consultation with an advisor:

Thesis and EDME 695 (3 units)
Comprehensive Examination and EDME 698 (6 units)

Program Courses

Initial Preparation

Early Orientation (two units; completed prior to or during first semester)

1. CTED 400 Early Orientation to Career Technical Education (2)
   Prerequisite: Preliminary Designated Subjects Career Technical Education credential and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator.

Semester 1 (6 units):

2. CTED 401A Curriculum, Instruction, and Assessment in Career Technical Education (3)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401B.

3. CTED 401B Field Practicum in Career Technical Education I (1)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401A.

4. CTED 402 Effective Learning Environments in Career Technical Education (2)
   Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 401A and CTED 401B.

Semester 2 (5 units):

5. CTED 403A Foundations of Career Technical Education (2)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403B.

6. CTED 403B Field Practicum in Career Technical Education II (1)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403A.

7. CTED 404 Addressing the Needs of All Learners in Career Technical Education (2)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 403A, CTED 403B.

Advanced Preparation

Semester 3:

8. CTED 405A Advanced Preparation in Career Technical Education (3)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or permission of the CTE program coordinator. Corequisite: CTED 405B.

AND

CTED 405B Field Practicum in Career Technical Education III (1)
   Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program;
3. Verify completion of one of the following:
2. Complete a Commission-approved program of personalized preparation competencies determined with program advisor.
1. Possess a valid California Preliminary CTE credential.

Requirements
Successful completion of the CTE program leads to recommendation for the Clear credential. The Clear credential is valid for 5 years and may be renewed.

Requirements for the Preliminary Credential
1. Three years of verifiable work experience directly related to each industry sector named on the credential. Experience may be full-time or part-time, paid or unpaid. One year is equal to 1000 clock hours.
2. High school diploma requirement met by: (a) U.S. high school diploma, (b) GED, or (c) foreign equivalent of a high school diploma.
3. Verification by a Commission-approved program sponsor of having been apprised of the requirements for both the Preliminary and the Clear credentials.
4. Completed Commission on Teacher Credentialing form 41-4 (application for the Preliminary credential).
5. Have filed for or can demonstrate fingerprint clearance (CTC form 41-LS).
6. Recommendation by a Commission-approved CTE program sponsor.

Requirements for the Clear Credential
Successful completion of the CTE program leads to recommendation for the Clear credential. The Clear credential is valid for 5 years and may be renewed.

Requirements
1. Possess a valid California Preliminary CTE credential.
2. Complete a Commission-approved program of personalized preparation that includes training in Specially Designed Academic Instruction in English (SDAIE).
3. Verify completion of one of the following:
   A. Two years of successful teaching on the basis of the Preliminary CTE credential in the areas listed on the credential;
   B. A Commission-approved program of advanced personalized preparation as determined by the program sponsor.
4. U.S. Constitution requirement met by course work or examination.
5. Health education, including but not limited to the study of nutrition; the psychological and sociological effects of abuse of alcohol, narcotics, and drugs; and the use of tobacco. Requirement includes CPR training covering infant, child and adult CPR skills.
6. Complete study in computer-based technology, including the uses of technology in educational settings.
7. Credential application form 41-4.
8. Credential processing fee.

Adult Education Track (AE)
This program is "Approved-Inactive" by the CA Commission on Teacher Credentialing, and is not currently accepting any new students.

Commission on Teacher Credentialing standards for the Adult Education teaching authorization have recently been revised. The AE program at CSULB is undergoing revision and will take effect immediately upon approval.

The Adult Education track is a 10-unit Clear credential program comprised of an Early Orientation course (2 units), two core courses (6 units), and one supervised field practicum course (2 units). A minimum grade of "C" is required in all courses to maintain program standing.

Program Courses
1. ADED 410 Early Orientation to Adult Education (2)
   Prerequisite: Preliminary Designated Subjects Adult Education Credential and admission to the Designated Subjects Credential Program Adult Education Track; or consent of program advisor.
2. ADED 420 Curriculum, Instruction, Assessment, and Classroom Management in Adult Education (3)
   Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and concurrent enrollment in ADED 410; or consent of instructor.
3. ADED 430 Foundations of Adult Education (3)
   Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and concurrent enrollment in ADED 410; or consent of instructor.
4. ADED 440 Field Practicum in Adult Education (2)
   Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and concurrent enrollment in ADED 420; or consent of instructor.

Program Admission
Prospective candidates should consult the Adult Education advisor regarding credential requirements, application procedures, and schedule of course offerings. NOTE: Candidates for admission to the program (a) must have already successfully completed Early Orientation or (b) must enroll in Early Orientation in their first semester in the program.

Program Application
Applicants must:
1. Submit a program application to the College of Education Credential Center,
2. Submit a written statement of purpose for pursuing the AE credential as part of the application, and
3. Schedule an interview with the AE program advisor.

Applications may be downloaded from the Designated Subjects Credential Program section of the College of Education website: www.ced.csulb.edu. Applicants to the AE program must hold a valid Designated Subjects Preliminary Credential in Adult Education. Prospective candidates should consult the college Credential Center to file for their Preliminary Credential.

Requirements for Preliminary Credential
1. Three years of verifiable work experience directly related to each industry sector named on the credential. Experience may be full-time or part-time, paid or unpaid. One year is equal to 1000 clock hours.
2. High school diploma requirement met by: (a) U.S. high school diploma, (b) GED, or (c) foreign equivalent of a high school diploma.
3. Verification by CSULB of having been apprised of the requirements for both the Preliminary and the Clear credentials.
4. Completed Commission on Teacher Credentialing form 41-4 (application for the Preliminary credential).
5. Have filed for or can demonstrate fingerprint clearance (CTC form 41-LS).
6. Recommendation for the Preliminary credential by CSULB.

Requirements for Clear Credential
Successful completion of the AE program leads to recommendation for the Clear credential. The Clear credential is valid for 5 years and may be renewed.

Requirements
1. Possess a valid California Preliminary AE credential.
2. Complete a Commission-approved program, i.e., CSULB program.
3. Successful teaching of a minimum of one course in each of four terms within the five-year period of validity of the Preliminary Adult Education credential.
4. U.S. Constitution requirement met by course work or examination.
5. Health education, including but not limited to the study of nutrition; the psychological and sociological effects of abuse of alcohol, narcotics, and drugs; and the use of tobacco. Requirement includes CPR training covering infant, child, and adult CPR skills. The accepted course at CSULB is HSC 411B.
7. Credential processing fee.
8. Recommendation for the Clear credential by CSULB.

Petition Process for the Designated Subjects Program
Appeals to program decisions or requests for policy waivers are made by filing a written appeal or request with the CTE or AE program advisor. If a satisfactory decision cannot be arrived at, the advisor takes the petition or request to a faculty review committee. The committee reviews the written statement and supporting evidence and renders a decision. The decision may be appealed to the college Student Affairs Committee. For grade appeals, follow university policy described in the current catalog.

Adult Education Courses (ADED)

410. Early Orientation to Adult Education (2)
Prerequisite: Preliminary Designated Subjects Adult Education Credential and admission to the Designated Subjects Credential Program Adult Education Track; or consent of program advisor.
Competencies in Adult Education at an introductory level. Curriculum, instruction, assessment, use of technology, students with special needs, English learners, collaboration with other educators, orientation to school settings, professional growth. Topics are covered in depth in subsequent program courses.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing.

420. Curriculum, Instruction, Assessment, and Classroom Management in Adult Education (3)
Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and completion of or concurrent enrollment in ADED 410; or consent of instructor.
Curriculum design, instructional strategies, assessment, and classroom management for teachers of Adult Education. Emphasis on integrating content with instruction and assessment.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing.

430. Foundations of Adult Education (3)
Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and completion of or concurrent enrollment in ADED 410; or consent of instructor.
Principles and practices of adult education, including history, philosophical perspectives, adult learning theory, and professional responsibilities of the Adult Educator.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing.

440. Fieldwork Practicum in Adult Education (2)
Prerequisite: Admission to the Designated Subjects Credential Program Adult Education Track and concurrent enrollment in ADED 420; or consent of program advisor.
Supervised fieldwork for students in the Designated Subjects Credential Program Adult Education Track.
Credit/No Credit grading only.

Career Technical Education Courses (CTED)

400. Early Orientation to Career Technical Education (2)
Prerequisite: Preliminary Designated Subjects Career Technical Education credential and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator.
Competencies in Career Technical Education at an introductory level. Curriculum, instruction, assessment, use of technology, special needs students, English learners, collaboration with other educators, orientation to school settings, professional growth. Topics are covered in depth in subsequent program courses.
Letter grade only (A-F). May be repeated to a maximum of 4 units in different semesters.
401A. Curriculum, Instruction and Assessment in Career Technical Education (3)
Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 401A.
Curriculum design, pedagogy, and assessment for teachers of Career Technical Education. Emphasis on integrating content with instruction and assessment.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing. May be repeated to a maximum of 6 units in different semesters.

401B. Career Technical Education Field Practicum I (1)
Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 401A.
First supervised field experience in the candidate’s teaching setting. Candidates apply knowledge and skills learned in CTED 401A. For candidates who do not yet have a teaching position, 25 hours of structured fieldwork in an appropriate educational setting determined in consultation with the instructor.
Credit/no credit grading only. May be repeated to a maximum of 2 units in different semesters.

402. Effective Learning Environments in Career Technical Education (2)
Prerequisite: CTED 400, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 401A.
Classroom and laboratory management and instructional technology for Career Technical Education teachers. Integrating content, instruction, and assessment through behavioral and learning management theory and practice. Uses of technology to support instructional and administrative goals.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing. May be repeated to a maximum of 4 units in different semesters.

403A. Foundations of Career Technical Education (2)
Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 403B.
Themes, concepts, purposes, principles, legal and ethical issues, and historical trends in Career Technical Education. Development of professional perspectives, including growth as a teacher through reflective practice.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing. May be repeated to a maximum of 4 units in different semesters.

403B. Career Technical Education Field Practicum II (1)
Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 403A.
Second supervised field experience in the candidate’s teaching setting. Candidates apply knowledge and skills learned in CTED 401A, CTED 402, and CTED 403A. For candidates who do not yet have a teaching position, 25 hours of structured fieldwork in an appropriate educational setting determined in consultation with the instructor.
Credit/no credit grading only. May be repeated to a maximum of 2 units in different semesters.

404. Addressing the Needs of All Learners in Career Technical Education (2)
Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 403A, CTED 403B.
Working with diverse students in the Career Technical Education classroom. Making content accessible to English learners through SDAIE and other strategies. Basic knowledge, skills and strategies for teaching special populations. Promoting a positive, inclusive learning environment.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing. May be repeated to a maximum of 4 units in different semesters.

405A. Advanced Preparation in Career Technical Education (3)
Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 405B.
Covers major competencies in Career Technical Education at the Advanced Preparation level. Topics include curriculum, instruction, assessment, use of technology, special needs students, English learners, collaboration with other educators, and professional growth.
Letter grade only (A-F). Minimum grade of "C" required to maintain program standing. May be repeated to a maximum of 6 units in different semesters.

405B. Career Technical Education Field Practicum III (1)
Prerequisite: CTED 400, CTED 401A, CTED 401B, CTED 402, CTED 403A, CTED 403B, CTED 404, Preliminary Designated Subjects Career Technical Education credential, and admission to Designated Subjects Career Technical Education program; or consent of the CTE program coordinator. Corequisite: CTED 405A.
Advanced supervised field experience in the candidate’s teaching setting. Candidates apply knowledge and skills learned in CTED 401A, CTED 402, CTED 403A, CTED 404 and CTED 405A. For candidates who do not yet have a teaching position, 25 hours of structured fieldwork in an appropriate educational setting determined in consultation with the instructor.
Credit/no credit grading only. May be repeated to a maximum of 2 units in different semesters.

Curriculum and Instruction Courses (EDCI)

GRADUATE LEVEL

500. Studies in Curriculum and Instruction (3)
Prerequisite: Admission to the Curriculum and Instruction Master’s Program or consent of instructor. Must be taken during the first or second semester in the Master’s Program.
Introduction to graduate study. Overview of curriculum and instruction as a field of inquiry. Reading critically and conducting educational research. Using reflective strategies to analyze and improve professional practice.
Letter grade only (A-F).

505. History of Education in the United States (3)
Prerequisites: Admission to an approved masters program or consent of the instructor. Must be taken during the first or second semester.
Advanced exploration of the major historical and philosophical paradigms of elementary and secondary education in the United States from which contemporary educational reform movements, curricula, and instructional practices have emerged.
Letter grading only (A-F).
530. Cross-cultural Education: US and Global Perspectives (3)
Prerequisite: Admission to an approved Master’s program or consent of the instructor.
Critical analyses of cultural diversity, educational equity, and global interdependence to enhance cross-cultural competence. Students will investigate research literature, apply research-based knowledge to their educational practice, and infuse cross-cultural concepts, skills, and attitudes into the K-12 curriculum.
Letter grade only (A-F).

532. Socialization of Literacy in More Than One Language (3)
Prerequisites: Admission to the Masters of Education program, Option in Elementary Education, Dual Language Specialization, or consent of the instructor.
Examination of the social and cultural relationships between language and text from early utterances to adult literacy processes. Analyses of the contexts and conditions that influence literacy development for first and second language learners.
Ten hours of fieldwork required. Letter grade only (A-F).

533. Action Research Methods: Teachers as Inquirers (3)
Prerequisite: Admission to the Curriculum and Instruction Master’s Program or consent of instructor.
Examination of goals and features of action research, with focus on developing skills in data collection and analysis in order to support sustained action research as a teacher/researcher in classroom settings.
Letter grade only (A-F).

541. Designing Curriculum and Instruction in Primary and Second Language Settings (3)
Prerequisites: A valid California CLAD teaching credential or equivalent.
Principles of curriculum development, including primary, dual, and second language teaching and learning. Critical literacy. Includes research and program design internationally. (Offered in US or Mexico.)
Ten hours of fieldwork required. Letter grade only (A-F).

570. Advanced Studies in Teaching History-Social Science (3)
Prerequisites: EDEL 472; EDP 400, EDP 520 or EDP 696, or equivalent.
Intensive study of selected topics related to teaching and learning history-social science. Students engage in a systematic inquiry into their own practice as they conduct a teacher action research project.
Letter grade only (A-F).

615. Contemporary Issues in Elementary and Secondary Education (3)
Prerequisite: EDCI 500 and admission to an approved masters program or consent of the instructor.
Advanced analysis of current trends and issues in specific areas of elementary and secondary education. In-depth exploration of research perspectives and societal factors that influence the direction of elementary and secondary education in America.
Letter grade only (A-F).

625. Analysis of Curriculum, Instruction, and Assessment (3)
Prerequisites: EDCI 500, EDCI 505, EDP 400; and one of the following EDP 520, EDP 595, or EDP 696 or EDCI 533; consent of the instructor.
Advanced study of curriculum design, instructional processes, and student assessment through analysis of theory and research on teaching and learning. California K-12 Content Standards and the California Standards for the Teaching Profession are used to align curriculum, instruction, and assessment.
Letter grade only (A-F).

695. Seminar in Curriculum and Instruction (3)
Prerequisites: EDCI 500, EDCI 505, EDCI 625 and advancement to candidacy, or by consent of instructor.
Studies in curriculum and instruction. Course content varies. Offered on an irregular basis; consult the Schedule of Classes. Letter grade only (A-F).

697. Directed Research in Curriculum and Instruction (1-3)
Prerequisites: Consent of instructor, department chair, and associate dean.
Individual research or intensive study under the guidance of a faculty member.
A student may enroll for one to three units to a maximum of six units for certificate and degree purposes, subject to a suitable change in course content. Application for enrollment must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission. May be repeated to a maximum of 6 units in different semesters.

698. Thesis Study in Curriculum and Instruction (3)
Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair and associate dean.
Planning, preparation, and completion of thesis under supervision of a thesis committee.
Application for enrollment must be made in the Graduate Studies Office by October 1 for the spring semester or by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission. Credit/no credit grading only. May be taken for a maximum of 6 units in different semesters.

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**Early Childhood Education Courses (EDEC)**

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**GRADUATE LEVEL**

520. Early Childhood Curriculum and Assessment: Critical Perspectives (3)
Examines the history of competing movements in American early childhood curriculum thinking, program models, and current debates. Develops curriculum and assessment measures that integrate antibias, inclusive, and multicultural and global education into a unified approach.
Ten hours of fieldwork required. Letter grade only (A-F).

521. Historical and Contemporary Perspectives in Early Childhood (3)
Historical and contemporary perspectives in early childhood education and their impact on ECE programs, practices, and policies. Role of national/global organizations in institutionalizing and promoting various ECE perspectives and images of childhood. Debates over perspectives.
Ten hours of fieldwork required. Letter grade only (A-F).

522. Parent Education and Involvement in Educational Environments (3)
Analysis of theories, research, issues, policies, programs, and practices pertaining to parent involvement in diverse and inclusive educational settings. Students design and implement home-based and school/center-based parent involvement activities.
Ten hours of fieldwork required. Letter grade only (A-F).
523. Leadership, Advocacy and Supervision of Early Childhood Programs (3)
Discussion of various types of ECE programs, program development and implementation, different management approaches and leadership styles, and advocacy for young children and their families. Analysis of position statements and state documents pertaining to ECE programs.
Ten hours of field work required. Letter grade only (A-F).

526. Advanced Study of Infant and Toddler Programs (3)
Prerequisites: EDP 301 or consent of instructor.
Analysis of theories, research, and policies on infant and toddler care and education. Discussion of curriculum, environmental plan, and assessment for infant and toddlers. Infant/toddler program assessment.
Ten hours of fieldwork required. Letter grade only (A-F).

621. Research Seminar in Early Childhood Education (3)
Prerequisites: EDP 400 and teaching experience.
Discussion and analysis of research including qualitative research design and review of literature on topics pertaining to the field of Early Childhood Education.
Ten hours of field work required. Letter grade only (A-F).

622. Seminar in Early Childhood Care and Education: International Perspectives (3)
Discussion of ECE programs around the world. Analysis of social, political, and economic influences on policies related to the care and education of young children. Examines the role of international and national agencies in protecting children’s welfare and education.
Letter grade only (A-F).

695. Seminar in Early Childhood Education (3)
Prerequisites: Advancement to candidacy, approval of the Early Childhood Education program advisor, and written application submitted to the Graduate Studies Office by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
For qualified candidates preparing to take the comprehensive examination. Consideration of curriculum role of the school and topics related to the effectiveness and excellence in early childhood education.
Letter grade only (A-F).

697. Directed Research in Early Childhood Education (1-3)
Prerequisites: Consent of instructor, department chair, and associate dean.
Individual research or intensive study under the guidance of a faculty member.
Application for enrollment must be made by October 1 for the spring semester or by the deadline as seen on the Graduate Advising home page for the fall or summer semester to receive consideration for admission. May be repeated to a maximum of 6 units in different semesters for certificate and degree purposes, subject to suitable change in course content.

698. Thesis Study in Early Childhood Education (3)
Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair, and associate dean.
Planning, preparation, and completion of thesis under supervision of a thesis committee.
Application for enrollment must be made in the Graduate Studies Office by the deadline as seen on the Graduate Advising home page for the fall or summer semester to receive consideration for admission. Credit/no credit only. May be repeated to a maximum of 6 units in different semesters.

Elementary Education Courses (EDEL)

LOWER DIVISION

EDEL 058. Learning Foundations for the Teaching Profession (1)
Learning Found Teach Profession
Prerequisite: None
Structured oversight and advisement for undergraduate students for specific Multiple Subject Credential Program Pathways. Includes pre-service field experiences in diverse public schools. May be repeated for a total of eight (8) units. Enrollment is restricted to students with consent of instructor.
Credit/No Credit grading only (1 hour activity)
May be repeated to a maximum of 8 units in different semesters

100. Introduction to Teaching and Learning in Diverse Contemporary Classrooms (1)
Prerequisite: Acceptance in the Integrated Teacher Education Program.
Addresses the qualities of an effective teacher, components and purposes of an effective professional portfolio, and critical issues in diverse contemporary classrooms.
Ten hours of field experience. Letter grade only (A-F).

200. Introduction to the Teaching Profession (3)
Introduction to the concepts and issues related to K-8 education in a democratic society.
Letter grade only (A-F). Course fee may be required. Minimum 45 hours structured fieldwork in approved elementary, self-contained classroom required. A grade of “B” or better required for admission to the Multiple Subject Credential Program.

UPPER DIVISION

300. Cultural and Linguistic Diversity in Schools (3)
Prerequisites: Completion of EDEL 100 and EDEL 200. This course is intended for ITEP students only and requires admittance to the methods phase of the ITEP program
Future elementary school teachers will study schools and write reflective papers using a critical/pragmatic lens examining differentiated curriculum, instruction, and multiple assessment methods for diverse student populations during their 40 hours of school-based field experience.
Letter grade only (A-F). Course fee may be required.

380. Teaching and Learning in a Democratic Society (3)
Corequisite: EDSP 303.
Professional, historical, social, philosophical, legal, and political concepts and issues related to K-8 education in contemporary society. 45 hours structured fieldwork in approved elementary, self-contained classroom required.
Required prerequisite for admission to the Multiple Subject Credential Program. Letter grade only (A-F). Course fee may be required.

413. Developmentally Appropriate Teaching Practices (2)
Research-based theories and principles of development, learning, and motivation; developmentally appropriate teaching practices; subject specific pedagogy in health and physical education.
A minimum of 10 hours fieldwork in K-8 classrooms with a minimum 25% English Learners required. Letter grade only (A-F).

420. Teaching and Learning in the Kindergarten and Primary Grades (3)
Theories, research, policies and current trends/debates surrounding teaching and learning in the kindergarten and primary grades. Integrates curriculum, pedagogy, and assessment with a special focus on diverse learners in the kindergarten and primary grades.
Ten hours of field work required.
430. Social and Cultural Diversity in US Schools (3)
Examination of personal attitudes towards social groups and diversity issues. Study of historical and structural factors that either empower or oppress people based on language, class, race/ethnicity, gender, sexual orientation, ability, or religion. Study of educational responses to diversity.
Letter grade only (A-F).

431. Cultural and Linguistic Diversity in Schools (3)
Multicultural education, including concepts of culture, educational equity, social justice, multiple forms of diversity, and anti-bias/antiracist curriculum. Models of English language acquisition, bilingual education theory, and instructional accommodations for diverse students.
Ten hours fieldwork required. Letter grade only (A-F). Not open for credit to students with credit in EDP 431 or LING 431.

434. Cambodian Culture, Education and Diaspora (1-3)
Examination and analysis of conditions leading to the diaspora of Cambodians during the Pol Pot era and to resettlement in California, including social and psychological effects for individuals and families. Examination of current educational issues in Cambodia and local Cambodian communities. Required service learning takes place in Cambodia.
Letter grade only (A-F).

439. SDAIE: Specially Designed Academic Instruction in English (3)
Theories of second language acquisition and practical applications, including methods of teaching content to English language learners; oral, reading and writing strategies; and curriculum development with application to K-12 teaching.
Letter grade only (A-F). Not open for credit to students with credit in EDP 439 and EDSE 439.

442. Teaching and Learning Language Arts, K-8 (RICA) (3)
Prerequisite: Admission to the Multiple Subject Credential Program. Language arts and visual/performance arts curriculum; developmentally appropriate practice, assessment- and research-based instruction in culturally/linguistically diverse classrooms; English Language Development; SDAIE; relationships among oral language, writing, spelling, reading, literature, and technology.
Ten hours fieldwork in K-8 classroom with a minimum 25% English Learners required. Letter grade only (A-F). Course fee may be required.

452. Teaching and Learning Reading, K-8 (RICA) (3)
Prerequisite: Admission to the Multiple Subject Credential Program or Education Specialist Credential Program. Content, methods, and assessment for teaching reading to all students in culturally diverse, literature-based classrooms, including phonemic awareness, phonics, vocabulary development, comprehension, diagnosis, and the use of technology.
Ten hours fieldwork in K-8 classroom with a minimum 25% English learners required. Letter grade only (A-F). Course fee may be required.

452B. Teaching Reading in Spanish and English, K-8 (BCLAD) (1-3)
Prerequisite: Admission to the Multiple Subject Credential BCLAD (bilingual) Program.
Theory, research, and practice of teaching reading in two languages, including transfer of literacy skills from L1 to L2. Examines teacher beliefs and assumptions about literacy development among language minority students.
Letter grade only (A-F).
462. Teaching and Learning Mathematics, K-8 (3)
Prerequisites: Admission to the Multiple Subject Credential Program.
Learning theories, research, and instructional practices for teaching mathematics to all students in culturally and linguistically diverse classrooms.
Ten hours fieldwork in K-8 classroom with minimum 25% English learners required. Letter grade only (A-F). Course fee may be required.

472. Teaching and Learning History-Social Science, K-8 (3)
Prerequisites: Admission to the Multiple Subject Credential Program.
Theory, research, and content for standards-based history-social science teaching in diverse classrooms.
Ten hours fieldwork in K-8 classroom with a minimum 25% English learners required. Letter grade only (A-F). Course fee may be required.

482A. Student Teaching in Diverse Classrooms (8)
Prerequisites: Admission to 2042 Multiple Subject Credential Student Teaching including successful completion of Teacher Performance Assessment (TPA) Tasks 1 and 2.
Student teaching for an 8-week assignment in diverse public schools; weekly seminar. Credit/No Credit; equivalent of “A” or “B” for credit. Course fee may be required.

482B. Student Teaching in Bilingual Classrooms (8)
Prerequisite: Admission to Multiple Subject Credential Student Teaching.
Student teaching for an 8-week assignment in Bilingual Asian or Spanish classroom; weekly seminar. Credit/No Credit; equivalent of “A” or “B” for credit. Course fee may be required.

482D. ITEP/UTOACH Student Teaching in Diverse Classrooms (8)
Prerequisite: Admission to 2042 Multiple Subject Credential Student Teaching including successful completion of Teaching Performance Assessment Tasks 1 and 2.
ITEP/UTOACH student teaching for a semester assignment in diverse public schools; weekly seminar. Credit/No Credit; equivalent of “A” or “B” for credit. Course fee may be required. (1 1/2 hours weekly seminar).

482E. ITEP/UTOACH Student Teaching in Bilingual Classrooms-Asian Languages (8)
Prerequisite: Admission to Multiple Subject Asian BCLAD Credential Program Student Teaching.
ITEP/UTOACH student teaching for one semester in Bilingual Asian or Spanish public school classroom; weekly seminar. Credit/No Credit; equivalent of “A” or “B” for credit. Course fee may be required. (1 1/2 hours weekly seminar).

482F. Student Teaching in Spanish Dual Language Development Classrooms (8)
Prerequisite: Admission to Multiple Subject Credential Student Teaching.
One semester integrated student teaching in a K-8 public school with assignments at two of the following: K-2, 3-5, or 6-8. Emphasizes experiences in diverse classrooms with English Learners. Practicum in using Spanish for instruction. Spanish primary language management for explanation, clarification, and review.
Seminar included. Credit/No Credit grading only with an equivalent grade of “B” or better required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in the same semester. Course fee may be required.

490. Selected Topics - Elementary Education (1-3)
Topics of current interest in elementary education selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

497. Independent Study (1-3)
Prerequisites: Consent of instructor and department chair.
Independent study undertaken under the supervision of a faculty member. May be repeated to a maximum of 6 units but no more than 3 units applicable to credential or major requirement.

GRADUATE LEVEL

572A. Multiple Subject Internship (8)
Prerequisites: Admission to 2042 Multiple Subject Internship and advancement to Intern Student Teaching.
The Intern is a full-time teacher in a public school district with which CSULB has an intern agreement. Intern Student Teaching is a two-semester or one-semester culminating fieldwork experience.
Weekly seminar. Credit/No Credit grading only with an equivalent grade of “A” or “B” required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in different semesters.

572B. Multiple Subject Internship (8)
Prerequisites: Admission to 2042 Multiple Subject Internship and advancement to Intern Student Teaching.
The Intern is a full-time teacher in a public school district with which CSULB has an intern agreement. Intern Student Teaching is a two-semester or one-semester culminating fieldwork experience.
Weekly seminar. Credit/No Credit grading only with an equivalent grade of “A” or “B” required for credit including passage of TPA Task 4. May be repeated to a maximum of 16 units in different semesters.

599. Selected Topics - Teacher Education (1-3)
Study of a special topic in teacher education. Students must be enrolled in a Masters or Advanced Credential or Specialist Program.
Letter grade only A-F). May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes.

Mathematics Education Courses (EDME)

GRADUATE LEVEL

500. Contemporary Issues in Mathematics Education (3)
Prerequisite: Basic teaching credential or consent of instructor.
Letter grade only (A-F).

501. Assessment in Teaching and Learning Mathematics (3)
Prerequisite: Basic teaching credential or consent of instructor.
Designing advanced assessment methods aligned with the National Council of Teachers of Mathematics Assessment Standards; interpreting and using assessment results for planning and teaching mathematics in linguistically and culturally diverse classrooms.
Letter grade only (A-F).

502. Research in Mathematics Teaching and Learning (3)
Prerequisite: Basic teaching credential or consent of instructor.
Advanced study of mathematics education research. Emphasis on development of teacher-researchers in an inquiry learning process of research design, methods, data collection, and data analysis in qualitative, quantitative, and mixed methods approaches through conducting action research in teaching practices.
Letter grade only (A-F).
503. Advanced Mathematics Methods in Teaching, 1 (3)
Prerequisite: Basic teaching credential or consent of instructor.
Advanced study in mathematics methods by applying state and national mathematics principles and standards to research-based practices.
Letter grade only (A-F).

504. Advanced Mathematics Methods in Teaching, 2 (3)
Prerequisite: Basic teaching credential or consent of instructor.
Advanced study of the teaching and learning of mathematics in linguistically and culturally diverse classrooms. Topics include teaching and learning pre-algebra, algebra, plane and solid geometry, measurement, data analysis, probability, learning theories, assessment, state and national academic content standards.
Letter grade only (A-F).

505. Technology in Teaching and Learning Mathematics (3)
Prerequisites: Basic teaching credential, EDME 501 and EDME 502 or equivalent, or consent of instructor.
Advanced approaches to integrating contemporary technologies in teaching and learning mathematics. Focus on integrating technology to provide differentiated and individualized learning opportunities to meet the needs of linguistically and culturally diverse students.
Letter grade only (A-F).

520. Algebra: Research-Based Pedagogy (3)
Prerequisite: Basic teaching credential or consent of instructor.
Integration of pre-algebra and algebra content and pedagogy in mathematics classrooms. Exploration of recent research trends, national policies, and standards related to algebra curriculum and teaching.
Letter grade only (A-F).

550. Global Perspectives in Mathematics Teaching (3)
Prerequisite: Basic teaching credential or consent of instructor.
Developing global perspectives in mathematics teaching through case study and lesson analysis; exploring, analyzing, and applying multifaceted teaching approaches of different cultural and educational systems.
Letter grade only (A-F).

695. Advanced Studies in Mathematics Education (3)
Prerequisites: Advancement to candidacy in the Mathematics Education Program; approval of the Program Advisor; written application to take the comprehensive examination to the College of Education Graduate Office by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
Letter grade only (A-F).

698. Thesis Study in Mathematics Education (3)
Prerequisites: Advancement to candidacy in the Mathematics Education Program; approval of thesis advisor, department chair, and associate dean.
Planning, preparation, and completion of thesis under supervision of a thesis advisor.
Credit/No Credit grading only. May be repeated for a maximum of 6 units in different semesters. Application for enrollment must be made in the Graduate Studies Office by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission.
551B. Assessment of Literacy with Bilingual Students (3)
Prerequisites: Speaking and reading competence in Spanish; consent of the instructor.
Evaluation of measures, strategies, and materials used to assess literacy in bilingual students. Special emphasis on issues regarding the interpretation of assessment data, program placement, and instruction of English learners.
Requires diagnostic assessment/instruction plan. Participation by speakers of languages other than Spanish is possible as literacy assessments in diverse languages become available. Letter grade only (A-F).

554. Reading/Language Arts Curriculum: Leadership and Supervision (3)
Prerequisite: California Reading Certificate or consent of instructor.
Examines varied roles and responsibilities of the Reading/Language Arts Specialist including intervention, curriculum development, supervision, program development, and leadership. Letter grade only (A-F).

556. Theoretical Models and Processes of Reading (3)
Prerequisite: California Reading Certificate or consent of instructor.
Explores of phonological processes, the nature of reading, skill acquisition and development, teaching strategies, assessment and evaluation of student progress, classroom management and discipline, and instruction of English learners. Letter grade only (A-F).

558. Language Study for Reading Teachers (3)
Prerequisites: EDRG 540 and admission to the Reading Certificate program or consent of instructor.
Relationships among phonology, morphology, semantics, syntax, pragmatics, and the teaching of reading. Focus on phonemic awareness, phonics, decoding strategies, vocabulary, spelling, grammar skills, and English language learners. Letter grade only (A-F).

559. Practicum in Teaching Reading/Language Arts (3)
Prerequisites: EDRG 551 and admission to the Reading Certificate program or consent of instructor.
Methods and intervention approaches for meeting the needs of struggling readers at various levels of reading acquisition, including tutoring or small-group instruction of students. Classroom field experience is required. Letter grade only (A-F).

651. Advanced Diagnosis and Intervention in Reading/Language Arts (3)
Prerequisites: EDRG 551 or equivalent; valid California Reading Certificate or consent of instructor.
Includes clinical practicum and seminar on diagnosing and providing appropriate intervention for children with delayed literacy development. Letter grade only (A-F).

695. Seminar in Reading (3)
Prerequisites: Advancement to candidacy, approval of Reading Program advisor, and written application submitted to the Graduate Studies Office by October 1 for the spring semester; successful completion of all required course work for the Master of Arts in Education, Option in Elementary or Secondary Education, Specialization in Reading.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters.

697. Directed Research in Reading (1-3)
Prerequisites: Consent of instructor, department chair, and associate dean. Individual research or intensive study under the guidance of a faculty member. Application for enrollment must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission. Credit/no credit only. May be repeated to a maximum of 6 units in different semesters.

698. Thesis Study in Reading (3)
Prerequisites: Advancement to candidacy; approval of thesis advisor, department chair, and associate dean. Planning, preparation, and completion of thesis under supervision of a thesis committee. Application for enrollment must be made by the deadline as seen on the Graduate Advising home page for the fall or spring semester to receive consideration for admission. Credit/no credit only. May be repeated to a maximum of 6 units in different semesters for certificate and degree purposes, subject to suitable change in course content.
457. Reading and Writing in the Secondary School (3)
Prerequisite: EDSS 300 (A, C, D, F, G, H, M, N, P, or S); or admission in the Single Subject Credential Program; or consent of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program.
Emphasis on reading and writing assessment and instruction; textbook selection; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; English Language Development; the reading needs of less prepared, English language, and accelerated learners; and issues of diversity and equity.
Minimum fifteen hours of field work required. Course fee may be required. Letter grade only (A-F). May be repeated to a maximum of 6 units.

490. Selected Topics - Secondary Education (1-3)
Prerequisite: Consent of instructor.
Topics of current interest in secondary education selected for intensive study.
May be repeated to a maximum of 6 units with different topics. Topics announced in the Schedule of Classes. May enroll for a maximum of 6 units for certificate and degree, subject to suitable change in topic content.

497. Independent Study (1-3)
Prerequisites: Consent of instructor and department chair.
Independent study undertaken under the supervision of a faculty member.
May be repeated to a maximum of 6 units, but no more than 3 units applicable to credential or major requirement.
THEATRE ARTS
College of the Arts

Department Chair: TBA
Department Office: Theatre Arts (TA), Room 221
Telephone: (562) 985-7891


Undergraduate Advisor: Cody Arnold (562) 985-4070
Graduate Advisor: Josh Nathan (562) 985-4042
Administrative Coordinator: Jennifer White (562) 985-7891

Career Possibilities
Actor • Director • Stage Manager • Lighting Designer • Costume Designer • Set Designer • Technical Director • Teacher • Theatre Administrator • Theatre Manager • Director of Development • Box Office Manager • Managing Director • Assistant Director • Marketing Director • Playwright • Writer (Some of these, and other careers, require additional education or experience. For more information, see www.careers.csulb.edu.)

Introduction
The Department of Theatre Arts offers the Bachelor of Arts degree with opportunities for options in Performance (acting) and Technical Theatre (scenery/costume/lighting).

The Department of Theatre Arts offers graduate study leading to the Master of Fine Arts degrees. The candidate is urged to observe the general requirements stated in this Catalog, as well as the specific departmental requirements stated here and, more fully, in the Department Program Planners, available upon request from the department.

The Theatre Arts Department holds division II membership in the National Association of Schools of Theatre (National Association of Schools of Theatre, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700). The Bachelor of Arts and the Master of Fine Arts degrees are accredited by the association. The department is also a member in good standing with the Theatre Communications Group, the History, Literature and Criticism of Theatre, and Directing. After completion of the lower division core students may choose to audition/interview for placement in the performance or design options.

Requirements
Lower Division Core:
Take all of the following courses:
THEA 101 Fundamentals of Script Analysis (3)  
Prerequisites: None
THEA 111 Theatre Arts Showcase (1)  
Prerequisites: None
THEA 114A Fundamentals of Acting (3)  
“C” or better required  
Prerequisites: None
THEA 142 Elementary Stagecraft (3)  
Corequisites: THEA 140 or THEA 340
THEA 146 Costume Crafts I (3)  
Corequisites: THEA 140 or THEA 340
THEA 148 Stage Lighting I (3)  
Corequisites: THEA 140 or THEA 340
THEA 201 Writing for the Theatre Arts (3)  
Prerequisite: ENGL 100 or GE Composition (Area A1).
THEA 221 History of Theatre and Drama to 1660 (3)  
Prerequisite: THEA 101 or concurrent enrollment or consent of instructor.
THEA 222 History of Theatre and Drama Since 1660 (3)  
Prerequisite: THEA 221 or consent of instructor.
THEA 271 Stage Management (3)  
Corequisites: THEA 240 or THEA 440

Upper Division Core:
Take all of the following courses:
THEA 324 Theatre Today (3)  
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
THEA 374 Fundamentals of Directing (3)  
Prerequisites: THEA 101 and THEA 114A or consent of instructor.
THEA 426 Dramatic Theory and Criticism (3)  
Prerequisites: None

Audition judged by faculty. In addition, the Fine Arts Affiliates of the University and the Dramatic Allied Arts Guild of Long Beach provide for monetary awards to qualified students in all areas of theatre. For further information contact the Department of Theatre Arts.

Undergraduate Programs

Bachelor of Arts in Theatre Arts (120 units)
The Bachelor of Arts in Theatre Arts provides the opportunity for the student to gain a broad exposure to the discipline. The curriculum requires study in Acting, Technical and Design Crafts, the History, Literature and Criticism of Theatre, and Directing. After completion of the lower division core students may choose to audition/interview for placement in the performance or design options.

Requirements
Lower Division Core:
Take all of the following courses:
THEA 101 Fundamentals of Script Analysis (3)  
Prerequisites: None
THEA 111 Theatre Arts Showcase (1)  
Prerequisites: None
THEA 114A Fundamentals of Acting (3)  
“C” or better required  
Prerequisites: None
THEA 142 Elementary Stagecraft (3)  
Corequisites: THEA 140 or THEA 340
THEA 146 Costume Crafts I (3)  
Corequisites: THEA 140 or THEA 340
THEA 148 Stage Lighting I (3)  
Corequisites: THEA 140 or THEA 340
THEA 201 Writing for the Theatre Arts (3)  
Prerequisite: ENGL 100 or GE Composition (Area A1).
THEA 221 History of Theatre and Drama to 1660 (3)  
Prerequisite: THEA 101 or concurrent enrollment or consent of instructor.
THEA 222 History of Theatre and Drama Since 1660 (3)  
Prerequisite: THEA 221 or consent of instructor.
THEA 271 Stage Management (3)  
Corequisites: THEA 240 or THEA 440

Upper Division Core:
Take all of the following courses:
THEA 324 Theatre Today (3)  
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
THEA 374 Fundamentals of Directing (3)  
Prerequisites: THEA 101 and THEA 114A or consent of instructor.
THEA 426 Dramatic Theory and Criticism (3)  
Prerequisites: None
Take 4 units from the following:
THEA 140, THEA 240, THEA 340, THEA 440

Take 18 units from the following:

No more than eight units of Theatre Arts activity (cast and/or crew) will apply toward degree requirements. Crew requirements for all majors: One major running crew assignment in residence for each of the areas of costume, stagecraft, lighting, and stage management. Students with transfer credit in those related courses must fulfill the same running crew requirements within the first three semesters of matriculation into the University.

At the beginning of the semester, all incoming students, including transfer students (including those who have been inactive for a year in our department), are required to audition or interview. Auditions and interviews are conducted by appropriate faculty/student groups. These auditions are required for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty.

Option in Performance: Acting (120 units)

Lower Division Core:
Take all of the following courses:
THEA 101 Fundamentals of Script Analysis (3)
THEA 111 Theatre Arts Showcase (1)
THEA 114A Fundamentals of Acting (3)

* "C" or better required

THEA 142 Elementary Stagecraft (3)
THEA 146 Costume Crafts I (3)
THEA 148 Stage Lighting I (3)
THEA 201 Writing for the Theatre Arts (3)
THEA 221 History of Theatre and Drama to 1660 (3)
THEA 222 History of Theatre & Drama Since 1660 (3)
THEA 271 Stage Management (3)

Upper Division Core:
Take all of the following courses:
THEA 324 Theatre Today (3)
THEA 374 Fundamentals of Directing (3)

THEA 426 Dramatic Theory and Criticism (3)

Take all of the following courses:
THEA 112 Beginning Voice and Speech for Actor (3)
THEA 114B Fundamentals of Acting (3)
THEA 214 Intermediate Acting (3)
THEA 262 Beginning Movement for the Actor (3)

Take four units from the following:
THEA 140, THEA 240, THEA 340, THEA 440

Take six units from the following courses:

No more than eight units of Theatre Arts activity (cast and/or crew) will apply toward degree requirements. Crew requirements for all majors: One major running crew assignment in residence for each of the areas of costume, stagecraft and lighting to be satisfactorily completed. Students with transfer credit in those related courses must fulfill the same running crew requirements within the first three semesters of matriculation into the University.

At the beginning of the semester, all incoming students, including transfer students (including those who have been inactive for a year in our department), are required to audition or interview. Auditions and interviews are conducted by appropriate faculty/student groups. These auditions are required for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty.

All performance majors will also fulfill four performance requirements to graduate. This requirement is met through acting, understudying, directing or assistant directing for a Mainstage or Second Stage production; acting or directing for a Showcase production; or by a special assignment approved by the performance faculty.

Option in Technical Theatre: Scenery/Costume/Lighting Design (120 units)

Lower Division Core:
Take all of the following courses:
THEA 101 Fundamentals of Script Analysis (3)
THEA 111 Theatre Arts Showcase (1)
THEA 114A Fundamentals of Acting (3)
THEA 142 Elementary Stagecraft (3)
THEA 146 Costume Crafts I (3)
THEA 148 Stage Lighting I (3)
THEA 201 Writing for the Theatre Arts (3)
THEA 271 Stage Management (3)

Theatre Arts • 853
Minor in Theatre Arts

This minor may be combined with any major at CSULB except the BA in Theatre Arts. Students are admitted to the minor after having completed a minimum of 30 units of college level course work including all 12 units of General Education Foundation courses with a cumulative GPA of 3.0 or higher.

Requirements

A minimum of 21 units is required for the minor.

Take all of the following:

THEA 101 Fundamentals of Script Analysis (3)
Prerequisites: None

THEA 221 History of Theatre and Drama to 1660 (3)
Prerequisites: None

THEA 352 Foundations of Visual Expression (3)
Prerequisites: None

THEA 433 Design for Theatre (3)
Prerequisites: THEA 142, THEA 146, THEA 148 or consent of instructor.

Take four units from the following:

THEA 101, THEA 240, THEA 340, THEA 440

Take 12 units from the following courses:

THEA 144, THEA 341, THEA 342, THEA 441, THEA 442, THEA 444, THEA 446, THEA 447, THEA 448, THEA 449, THEA 476, THEA 498.

No more than eight units of Theatre Arts activity (cast and/or crew) will apply toward degree requirements. Crew requirements for all majors: One major running crew assignment in residence for each of the areas of costume, stagecraft and lighting to be satisfactorily completed. Students with transfer credit in those related courses must fulfill the same running crew requirements within the first three semesters of matriculation into the University.

At the beginning of the semester, all incoming students, including transfer students (including those who have been inactive for a year in our department), are required to audition or interview. Auditions and interviews are conducted by appropriate faculty/student groups. These auditions are required for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty. To certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty.

All technical theatre majors will also fulfill four production requirements in order to graduate. This requirement is met through scene, lighting, sound, costume, or makeup design or assistant design; technical direction or assistant; prop master; master painter; stage management or assistant; cutter or stitcher; or by special assignments as approved by the faculty in the appropriate area.

Upper Division Core:

Take all of the following courses:

THEA 324 Theatre Today (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.

THEA 374 Fundamentals of Directing (3)
Prerequisites: THEA 101 and 114A or consent of instructor.

THEA 426 Dramatic Theory and Criticism (3)
Prerequisites: None

Take all of the following courses:

THEA 352 Foundations of Visual Expression (3)
Prerequisites: None

THEA 433 Design for Theatre (3)
Prerequisites: THEA 142, THEA 146, THEA 148 or consent of instructor.

Take four units from the following:

THEA 140, THEA 240, THEA 340, THEA 440

Take 12 units from the following courses:

THEA 144, THEA 341, THEA 342, THEA 441, THEA 442, THEA 444, THEA 446, THEA 447, THEA 448, THEA 449, THEA 476, THEA 498.

No more than eight units of Theatre Arts activity (cast and/or crew) will apply toward degree requirements. Crew requirements for all majors: One major running crew assignment in residence for each of the areas of costume, stagecraft and lighting to be satisfactorily completed. Students with transfer credit in those related courses must fulfill the same running crew requirements within the first three semesters of matriculation into the University.

At the beginning of the semester, all incoming students, including transfer students (including those who have been inactive for a year in our department), are required to audition or interview. Auditions and interviews are conducted by appropriate faculty/student groups. These auditions are required for admittance to certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty. To certain upper division classes and are therefore used for appropriate placement of students at their level of competency as determined by the faculty.

All technical theatre majors will also fulfill four production requirements in order to graduate. This requirement is met through scene, lighting, sound, costume, or makeup design or assistant design; technical direction or assistant; prop master; master painter; stage management or assistant; cutter or stitcher; or by special assignments as approved by the faculty in the appropriate area.
designs, renderings, slides, digital images, models and/or working drawings;

4. All students admitted into the MFA program will be admitted as conditionally classified. In order to obtain fully classified status, a committee from the Theatre Arts faculty must authorize continuation in the program after evaluating academic progress, individual skills development, and review of performance or portfolio at the end of the student's first full year of residence.

Advancement to Candidacy
1. Attain fully classified status;
2. Remove all undergraduate deficiencies determined by the departmental evaluation and the Dean of the College;
3. Submit a program for approval by the department chair, the graduate advisor and the Dean of the College.

Requirements
The MFA degree is a 60-unit degree requiring full time residency. The options share a common core of courses. The remainder of courses offer the opportunity further to develop artistic skills in particular options. The program culminates in a major creative project and written project report.

Option in Acting
The Acting option requires work in voice, movement, and process each semester. Process classes explore a wide range of acting styles. Ongoing performances in public presentations are required. 60 units required.

Take all of the following:
THEA 517 Repertory Theatre I (2+2)
Prerequisites: Acceptance into the MFA Program.
THEA 518 Repertory Theatre II (2+2)
Prerequisites: Acceptance into the MFA Program.
THEA 520A Voice (3)
Prerequisite: None
THEA 520B Voice (3)
Prerequisites: None
THEA 523 Theory/Practice of Contemporary Theatre (3)
Prerequisite: None
THEA 524 Dramaturgy (3)
Prerequisite: Acceptance into the MFA Program.
THEA 525 Theatrical Critical Theory (3)
Prerequisite: None
THEA 530A Acting I (3)
Prerequisite: None
THEA 530B Acting I (3)
Prerequisite: THEA 530A.
THEA 531A Acting II (3)
Prerequisite: None
THEA 531B Acting II (3)
Prerequisite: THEA 531A.
THEA 552 Collaborative Studies (3)
Prerequisite: None
THEA 564A Movement I (3)
Prerequisite: None
THEA 564B Movement I (3)
Prerequisite: None
THEA 574 Directing (3)
Prerequisites: None

THEA 628 Writing for the Theatre Professional (3)
Prerequisites: Admission to Theatre Arts MFA program.
Take 4 units of:
THEA 699 MFA Thesis/Project (1-6)
Prerequisite: Advancement to candidacy and consent of department chair.
Take six units from the following:
THEA 521A Speech (3)
THEA 521B Speech (3)
THEA 565A Movement II (3)
THEA 565B Movement II (3)
THEA 694 Special Studies (3)

Option in Technical Theatre/Design
This option requires work in a variety of skills development emphasizing the technological as well as the artistic aspects of design and execution. Continuous advancing assignments in productions for public performances are required.

Requirements
Concentration core classes:
Take all of the following:
THEA 517 Repertory Theatre I (2)
Prerequisites: Acceptance into the MFA Program.
THEA 518 Repertory Theatre II (2)
Prerequisites: Acceptance into the MFA Program.
THEA 519 Repertory Theatre III (2)
Prerequisites: Acceptance into the MFA Program.
THEA 523 Theory/Practice of Contemporary Theatre (3)
Prerequisite: None
THEA 524 Dramaturgy (3)
Prerequisite: Acceptance into the MFA Program.
THEA 541 Portfolio Development (3)
Prerequisite: None
THEA 544 Visual Concepts in Theatre Design (3)
Prerequisite: None
THEA 550 Computer Graphics for Theatre (3)
Prerequisite: None
THEA 552 Collaborative Studies (3)
Prerequisite: None
THEA 556A Advanced Costume Design II (2)
Prerequisite: None
THEA 574 Directing (3)
Prerequisites: None
THEA 628 Writing for the Theatre Professional (3)
Prerequisites: Admission to Theatre Arts MFA program.
Take 4 units of:
THEA 699 MFA Thesis/Project (1-6)
Prerequisite: Advancement to candidacy and consent of department chair.
Take six units from the following:
THEA 521A Speech (3)
THEA 521B Speech (3)
THEA 565A Movement II (3)
THEA 565B Movement II (3)
THEA 694 Special Studies (3)

Costume Concentration: 60 units:
Take all of the following courses:
THEA 546A Advanced Costume Design I (2)
Prerequisites: None
THEA 546B Advanced Costume Design I (2)
Prerequisite: THEA 546A or consent of instructor
THEA 556A Advanced Costume Design II (2)
Prerequisites: None
THEA 556B Advanced Costume Design II (2)
Prerequisite: THEA 556A or consent of instructor.
THEA 656A Advanced Costume Design III (2)
Prerequisites: None
THEA 656B Advanced Costume Design III (2)
Prerequisite: THEA 656A or consent of instructor.
THEA 540 Non-traditional Material Use in the Theatre (2)
Prerequisite: Consent of instructor.
THEA 554 Textile Applications in Theatre Design (2)
Prerequisites: None
THEA 583 Theatrical Patterning Methods (2)
Prerequisites: None
Take 8 units of electives.
Scenery Concentration:
Take all of the following:
THEA 540 Non-traditional Material Use in Theatre (2)
Prerequisite: Consent of instructor.
THEA 545 Computer Aided Design for the Theatre (2)
Prerequisites: None
THEA 554 Textile Applications in Theatre Design (2)
Prerequisites: None
THEA 580A Scene Design I (2)
Prerequisites: None
THEA 580B Scene Design I (2)
Prerequisite: THEA 580A or consent of instructor.
THEA 585A Scene Design II (2)
Prerequisites: None
THEA 585B Scene Design II (2)
Prerequisite: THEA 585A or consent of instructor.
THEA 685A Scene Design III (2)
Prerequisites: None
THEA 685B Scene Design III (2)
Prerequisites: THEA 685A or consent of instructor.
Take 7 units of electives.
Lighting Concentration:
Take all of the following:
THEA 545 Computer Aided Design for the Theatre (2)
Prerequisites: None
THEA 548A Advanced Lighting Design I (2)
Prerequisite: Consent of instructor.
THEA 548B Advanced Lighting Design I (2)
Prerequisite: THEA 548A or consent of instructor.
THEA 555 Virtual and Automated Lighting Design (2)
Prerequisite: None
THEA 648A Advanced Lighting Design II (2)
Prerequisite: None
THEA 648B Advanced Lighting Design II (2)
Prerequisites: THEA 648A or consent of instructor.
THEA 649A Advanced Lighting Design III (2)
Prerequisite: None
THEA 649B Advanced Lighting Design III (2)
Prerequisite: THEA 649A or consent of instructor.
Take 10 units of electives.

Master of Business Administration / Master of Fine Arts in Theatre Management

The MBA/MFA degree will prepare arts professionals in all areas of both arts administration and business for professional careers in arts management—in performing and exhibiting arts organizations, in arts service organizations, in government, funding agencies and arts councils. The program prepares students for high level administrative positions and provides the background essential for advancement in professional management careers.

Admission
Candidates for this program must hold the equivalent of an undergraduate degree from an accredited institution of higher learning with a minimum of 24 units of upper division work in Theatre Arts. They should have achieved an undergraduate grade point average (GPA) of at least 2.75 (B-) and 3.0 GPA in upper division theatre courses. All candidates for admission are required to complete the Graduate Management Admission Test (GMAT) and achieve a score of at least 475. The GMAT measures general verbal, mathematical, and analytical writing skills that are developed over a long period of time and are associated with success in the first year of study at graduate schools of management. For each applicant, there is a departmental evaluation, based upon diagnostic examination and an analysis of official undergraduate transcripts to determine deficiencies and all areas which must be strengthened by the graduate program.

Requirements

Business Core 1 (12 units)
Take all the following courses:
ACCT 500 Financial Accounting (3)
Prerequisite: MBA standing required.
FIN 501 Financial Management Concepts (3)
Prerequisite: MBA standing required.
MGMT 500 Business Policies/Operations/Organizations (3)
Prerequisite: MBA standing. Recommended preparation: IS 310 or 410.
MKTG 500 Marketing Concepts (3)
Prerequisite: MBA standing required.

Business Core 2 (21 units)
Take all the following courses:
ACCT 610 Managerial Accounting and Control (3)
Prerequisite: MBA standing required.
FIN 600 Seminar in Business Finance (3)
Prerequisite: MBA standing required.
HRM 652 Sem in Human Resources Management (3)
Prerequisite: None
IS 601 Quantitative Methods for Managerial Decision Making (3)
Prerequisite: MBA standing required.
IS 602 Management of Information Systems (3)
Prerequisite: MBA standing required.
MGMT 647 Seminar in Strategic Management (3)
Prerequisites: MBA standing, plus MGMT 500 or equivalent.
MKTG 661 Seminar in Marketing Policies (3)
Prerequisite: MKTG 500.

Business Elective (3 units)

Theatre Core (9 units)
Take all the following courses:
THEA 523 Theory/Practice of Contemporary Theatre (3)
Prerequisite: None
THEA 524 Dramaturgy (3)
Prerequisite: Acceptance into the MFA Program.
THEA 696 Aesthetic Theory and Conceptualization (3)
Prerequisites: MBA standing.

Theatre Management (24 units)
Take all the following courses:
THEA 502 Seminar in Theatre Management I (3)
Theatre Electives (6 units)
Electives from the University at large (per advisement)

**Courses (THEA)**

**LOWER DIVISION**

101. Fundamentals of Script Analysis (3)
Basic approach to analysis of play script, intended to provide theatre practitioners and generalists with tools necessary to understand literary text of a play, and its application to work in performance, design and critical/historical studies.
Letter grade only (A-F).

110A,B. Theatre Arts Activity-Cast (1,1)
Participation in acting projects; open to students cast in University-sponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment.)

111. Theatre Arts Showcase (1)
Participation in weekly projects dealing with all aspects of Theatre Arts.
Credit/No Credit grading only. May be repeated to a maximum of 8 units. (3 hours activity).

112. Beginning Voice and Speech for the Actor (3)
Theory and practice in developing command of oral techniques for stage including breath support, resonation, free vocal release, and articulation.

113. Introduction to Acting (3)
Prerequisite/Corequisite: A GE Foundation course.
Review of actors and acting, past and present; their work as artists; basic exercises in voice, diction, movement, and personality projection. Open only to non-Theatre Arts majors.
Attendance at University sponsored productions required.
Letter grade only (A-F).

114A. Fundamentals of Acting (3)
Prerequisite: THEA 114A or equivalent.
Development and preparation of the actor’s instrument: voice, body, imagination. Exercises in relaxation, sensory work, motivations and relationships. Individual study of textual problems for actors.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

114B. Fundamentals of Acting (3)
Prerequisite: THEA 114A or equivalent.
Development and preparation of the actor’s instrument: voice, body, imagination. Exercises in relaxation, sensory work, motivations and relationships. Individual study of textual problems for actors.
Letter grade only (A-F). (6 hours lab)

122. Theatre for the 21st Century (3)
Prerequisite/Corequisite: A GE Foundation course.
Exploring live theatre in the context of emerging technologies.
Letter grade only (A-F).

140. Theatre Arts Activity — Crew (1)
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Sound, Tech Production, or Management areas.
Letter grade only (A-F). May be repeated for a maximum of 3 units. (60 hours minimum participation time or major crew assignment)

142. Elementary Stagecraft (3)
Introduction to the scope, history, tools, materials, and safe practices of stagecraft. Emphasizes the evolution of theatrical architecture, fundamentals of scenic design, scale and production drafting, materials, tools, safety, and principals of scenic construction.
(2 hours lecture, 2 hours lab). Letter grade only (A-F).

144. Stage Makeup (3)
May be taken concurrently with THEA 146.
Practical introduction to techniques of theatrical makeup. Students must be clean-shaven due to nature of course. Preparation of make-up material for University sponsored productions.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

146. Costume Crafts (3)
Corequisite: THEA 140 or THEA 340.
Introduction to the scope, history, tools, materials, and safe practices of stagecraft. Emphasizes the evolution of theatrical architecture, fundamentals of scenic design, scale and production drafting, materials, tools, safety, and principals of scenic construction.
(2 hours lecture, 2 hours lab). Letter grade only (A-F).

148. Stage Lighting (3)
Corequisite: THEA 140 or THEA 340
Introduction to the stage lighting process for stage including basic lighting design, layout; properties of various instruments
(2 hours lecture, 3 hours lab). Letter grade only (A-F).
201. Writing for the Theatre Arts (3)
Prerequisite: ENGL 100 or GE Composition (Area A1).
The study and application of rhetorical strategies of invention, arrangement, and style to write expository, analytic, and argumentative prose with special emphasis on particular features of writing in the Theatre Arts.
Letter grade only (A-F).

210A,B. Theatre Arts Activity — Cast (1,1)
Participation in acting projects; open to students cast in University-sponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment)

212. How the World Talks (3)
Prerequisite: Completion of GE Foundation Requirements.
Online practical study, exploring all the speech skills in human language (from the sounds of beat boxing to clicks) and exploring the spectrum of formal to informal speech choices in order to become more articulate and confident speakers in any context
Letter grade only (A-F)

214. Intermediate Acting (3)
Prerequisites: THEA 112, THEA 114A and THEA 114B. Should be taken directly following THEA 114B.
Introduction to scene study. Application of techniques of body, voice and imagination to dramatic texts thereby stimulating an acting process for role development.
Letter grade only (A-F). (6 hours lab)

215. Introduction to Audition Techniques (3)
Prerequisite or Corequisite: THEA 114A.
Introduction to fundamentals of auditioning for theatrical productions. For beginning actors. Focus on preparing and coaching monologues, dramatic sides and callbacks.
Letter grade only (A-F). (6 hours lab)

221. History of Theatre and Drama to 1660 (3)
Prerequisite: THEA 101 or concurrent enrollment or consent of instructor.
Development of Theatre Arts from primitive origins to the 17th Century.
Letter grade only (A-F). Not open for credit to students with credit on THEA 321.

222. History of Theatre and Drama Since 1660 (3)
Prerequisite: THEA 221 or consent of instructor.
Development of Theatre Arts from 17th Century to present.
Letter grade only (A-F). Not open for credit to students with credit on THEA 322.

240. Theatre Arts Activity — Crew (1)
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Sound, Tech Production, or Management areas.
Letter grade only (A-F). May be repeated for a maximum of 3 units. (60 hours minimum participation time or major crew assignment).

262. Beginning Movement for the Actor (3)
Beginning movement training for the actor based on physical conditioning and non-verbal communication related to beginning acting process.
Letter grade only (A-F). (2 hour Lecture, 2 hour activity).

271. Stage Management (3)
Corequisite: THEA 240 or THEA 440
Management skills required for the professional stage manager. Examines responsibilities, and function of stage manager in relation to director, designer, and performer.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

290. Selected Topics in Theatre Arts (3)
Prerequisite: Consent of instructor.
Topic of current interest in Theatre Arts selected for intensive study.
Letter grade only (A-F). May be repeated to a maximum of 9 units with different topics in different semesters. Topics announced in the Schedule of Classes. (2 hours lecture, 2 hours activity).

UPPER DIVISION

310A,B. Theatre Arts Activity — Cast (1,1)
Participation in acting projects; open to students cast in University-sponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment)

312. Applied Voice and Speech for the Actor (3)
Prerequisite: THEA 112 or equivalent and Admission into the Performance Option by adjudicated audition or consent of instructor.
Further study of vocal techniques for theatre, including variety of quality, force, tempo and pitch, scansion, and imagery. Application of basics learned in 112 to more complicated dramatic texts.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

316. Rehearsal and Performance (3)
Prerequisites: THEA 114A and THEA 114B.
Performance based class focusing on interrelationship of actor and director. Working with director on creative process, interpreting demands of director and combining these with actor’s creative process.
Letter grade only (A-F). (2 hour Lecture, 2 hour activity)

318A. Advanced Actor’s Process (3)
Prerequisites: THEA 214, THEA 316 and Admission into the Performance Option by adjudicated audition or consent of instructor.
Playing Action: Intensive scene study in late 19th century dramatic texts.
Letter grade only (A-F). (6 hours lab)

318B. Advanced Actor’s Process (3)
Prerequisites: THEA 318A or consent of instructor.
Character in action: Process of actor role development through Michael Chekhov acting technique and 20th century dramatic texts.
Letter grade only (A-F). (6 hours lab)

323. The Integration of Design and Performance (3)
Prerequisite: Completion of GE Foundation
Online course will explore the symbiotic and synergetic effects of design and performance. Analyze how visual and aural environments enhance and influence the storytelling of the actors and the engagement of the audience.
Letter Grade only (A-F)

324. Theatre Today (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper-division standing.
Examines current trends, achievements and problems in contemporary western theatre and dramatic literature. Particular attention will be paid to multicultural expression in the theatre.
Same course as CWL 324. Not open for credit to students with credit in CWL 324.
327. Theatre, Protest, and Social Change (3)
Prerequisite: G.E. foundation and upper-division status. Students must have scored an 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
The study of Theatre's role as a medium of protest and social change in United States history, with emphasis on analysis of individual works.
Letter grade only (A-F).

340. Theatre Arts Activity — Crew (1)
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Sound, Tech Production, or Management areas.
Letter grade only (A-F). May be repeated for a maximum of 3 units. (60 hours minimum participation time or major crew assignment.)

341. Presentation Techniques for Theatre (3)
Develop understanding of form, shape, line, and tone through exercises with various media. Explore approach to visualization and presentation techniques for theatre design.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

342. Advanced Technical Theatre (3)
Prerequisite: THEA 142 or consent of instructor.
Investigation of tools, materials, and procedures used in scenic construction and rigging. Supervised practical application of the techniques through scenic drafting and work on University sponsored productions.
(2 hours lecture, 2 hours activity)

344. Theatrical Makeup Design (3)
Corequisite: THEA 440
Exploration of theatrical make-up design techniques and their application.
Letter grade only (A-F).

352. Foundations of Visual Expression (3)
Introduction to basics of visual composition stressing a link to Theatre Design. Emphasizes development of visual discipline, creative skills and poetic and artistic nature of theatre design.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

364. Stage Combat (3)
Prerequisite: THEA 262 and Admission into the Performance Option by adjudicated audition or consent of instructor.
Practical study of unarmed combat for stage. Covers technique, safety, and application of combat skills for acting process.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

365. Improvisation and Comedy (3)
Prerequisite(s): Admission into the Performance Option by adjudicated audition or consent of instructor.
Survey of basic improvisation techniques and laboratory for short-form improvisation, long-form improvisation and self-generated material.
Letter grade only (A-F). (2 hours lecture, 2 hours lab.)

371. Intermediate Stage Management (3)
Prerequisites: THEA 271. Corequisites: Theatre Activity Unit.
In-depth study of Actor's Equity Association contract and legalities, advanced rehearsal, technical rehearsal and performance scheduling and management: including dance, opera, musical theatre and touring theatre. Students will be expected to Lead Assistant Stage Manage a Cal Rep/Studio Heavy production, or Stage Manage a Player's Light production.
Letter grade only (A-F). Requires a 30-hour lab and a 60-hour activity unit.

374. Fundamentals of Directing (3)
Prerequisites: THEA 101 and THEA 114A or consent of instructor.
Introduction to script analysis, rehearsal techniques, director's prompt book and organization of stage space and time. Using contemporary realistic plays to develop actor/director communication skills. Intensive scene work.
Letter grade only (A-F). (2 hour Lecture, 2 hour activity)

375. Intermediate Directing (3)
Prerequisite: THEA 374 and consent of instructor.
Intensive work using nonrealistic plays to develop director's concept, advanced script analysis and approach to challenges of style. Introduction to collaboration with set, lighting, costume, sound, and make up designers. Intensive scene work with student actors focusing on rehearsal techniques.
Letter grade only (A-F). (2 hour Lecture, 2 hour activity)

380. Playwriting (3)
Creative writing for the stage. Study of character, concept, theme, dialogue and structure.
Letter grade only (A-F).

390. Selected Topics in Theatre Arts (1-3)
Prerequisite: Consent of Instructor
Topics of current interest in Theatre Arts selected for intensive study.
Letter grade only (A-F). May be taken to a maximum of 9 units. Topics announced in the Schedule of Classes. (Lecture 1-3 hours)

410A,B. Theatre Arts Activity — Cast (1,1)
Participation in acting projects; open to students cast in University-sponsored productions.
Letter grade only (A-F). (60 hours minimum participation time or major crew assignment).

413. Film/Video Acting (3)
Prerequisite: THEA 318A and consent of Instructor
Acting techniques required for stylistic range and variety of film and television scripts. Video recording and playback of scenes and filmic acting exercises to adjust acting skills to these media.
Letter grade only (A-F). (6 hours activity)

414. Period Scene Study (3)
Prerequisite: THEA 318A and/or consent of instructor.
Scenes from period plays including Greek, Shakespeare, Comedy of Manners. Analysis of play's structure in terms of language, background, human behavior.
Letter grade only (A-F). (6 hours activity)

415. Preparing for the Profession (3)
Prerequisite: THEA 318A or consent of instructor.
Designed to acquaint actor with auditioning skills and practical business information necessary for acting professionally. Topics include: picture, resume, interview, audition, agent, casting, director, unions, contracts, job market and career strategies.
Letter grade only (A-F). (2 hours lecture, 2 hours activity)

418. Theatre of Community Engagement (3)
Prerequisite: Consent of Instructor
Interactive community-based collaboration utilizing applied theatre practices, culminating in an original devised theatre piece.
Letter grade only (A-F). May be repeated to a maximum of 6 units in different semesters (2 hours Lecture, 2 hours Activity)
425. Theatre and Cinema (3)
Prerequisites: Completion of G.E. foundation, one or more Explorations courses, and upper-division standing.
Examines relationships between theatre and cinema both historically and concerning problems of realism, comedy and melodrama.
Letter grade only (A-F).

426./526. Dramatic Theory and Criticism (3)
A study of the theories of dramatic literature and performance. Analysis of dramatic works in relationship to theory, cultural context, and critical methodologies.
Letter grade only (A-F).

427. Dramatic Construction (3)
Prerequisites: GE Foundation requirements; at least one Exploration course in Theatre Arts or in literature (an English literature course, comparative world literature course, foreign language literature course, or other literature course); and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Writing-intensive exploration of dramatic and literary theories that focus on narrative construction as applied to drama, film, storytelling and screenwriting.
Letter grade only (A-F).

433. Design for Theatre (3)
Prerequisites: THEA 142, THEA 146, THEA 148 or consent of instructor.
Integration of styles and methods of theatrical costume, makeup, sound, scenery, and lighting design.
Letter grade only (A-F).

440. Theatre Arts Activity — Crew (1)
Participation in technical play production projects; specific assignment determined through consultation with faculty or staff supervisors of Scenery, Lighting, Costume, Makeup, Sound, Tech Production, or Management areas.
Letter grade only (A-F). May be repeated for a maximum of 3 units. (60 hours minimum participation time or major crew assignment).

441. Scenographic Techniques (3)
Prerequisite: THEA 142 or consent of instructor.
Study of drafting techniques used to translate designer’s vision to finished set on stage. Includes both traditional and computer aided design and drafting tools.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

442. Scenic Technical Skills (3)
Prerequisite: THEA 142 or consent of instructor.
Use of materials and construction methods in stage properties, set dressing and furniture. Painting techniques for scenery and properties. Supervision in practical application of these elements in University sponsored productions.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

443./543. Special Applications In Theatrical Makeup (3)
Prerequisite: THEA 344 or consent of instructor.
Corequisite: THEA 440.
Special effects and new trends in theatrical make-up design techniques for characterization and style. Design, preparation and application of theatrical makeup for University sponsored productions.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

444. Scenic Design (3)
Prerequisite: THEA 101, THEA 142, THEA 433.
Comprehensive study in techniques and art of scenic design. Course includes practical hands-on instruction in design conceptual development and two and three dimensional visual expressions of ideas.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

446. Costume Design (3)
Prerequisite: THEA 101, THEA 146 or consent of instructor.
Development of costume design through character and script analysis and understanding of line, space, color, and texture. Planning and presentation of costume rendering.
May be repeated for a maximum of 6 units in different semesters. (2 hours lecture, 2 hours lab)

447./547. Costume Technical Skills (3)
Prerequisite: THEA 101, THEA 146, or consent of instructor.
Analysis of structure of costumes and accessories. Advanced technical projects using materials, patterning and construction methods in costume and accessories. Supervision in practical application of these elements in University sponsored productions.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters. (2 hours lecture, 2 hours lab)

448. Lighting Design (3)
Prerequisites: THEA 101, THEA 148 or consent of instructor.
Techniques of designing lighting for various stage forms; creative planning and projection of designs for specific productions.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (2 hours lecture, 2 hours lab)

449. Sound Design for the Theatre (3)
Introduction to scope, tools, materials and practices of sound in theatre today.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

462. Advanced Movement for the Actor (3)
Prerequisite: THEA 262 and Admission into the Performance option by adjudicated audition or consent of instructor.
Kinesthetic approaches to theatrically utilizing heightened physical language to explore character, relationship and truth.
Letter grade only (A-F). (2 hours lecture, 2 hour activity)

476. Theatre Management (3)
Examination of administration, management and promotion of a producing theatre organization. Practical application required in University-sponsored productions.
Letter grade only (A-F).

480. Advanced Playwriting (3)
Prerequisite: THEA 380 or consent of instructor
Exploration of advanced playwriting concepts including non-traditional approaches to narrative, stylistic innovation, theatricality and heightened poetic language.
Letter grade only (A-F). (2 hours lecture, 2 hours lab.)

490. Selected Topics in Theatre Arts (3)
Prerequisites: Consent of instructor.
Topics of current interest in Theatre Arts selected for intensive study.
Letter grade only (A-F). May be taken to a maximum of 9 units. Topics announced in the Schedule of Classes. (Lecture 2 hours, activity 2 hours)

498. Selected Topics in Theatre Arts (3)
Prerequisites: Consent of instructor.
Independent projects and research of advanced nature in areas of Theatre Arts under faculty supervision.
Letter grade only (A-F). May be repeated to a maximum of 6 units of
the same topic in the same area. Topics announced in the Schedule of Classes.

A. Acting
B. Directing
C. Costume
D. Scenery
E. Properties
K. Theatre criticism
L. Movement
M. Makeup
N. Lighting
O. Voice
P. Stage management
Q. Theatre management

GRADUATE LEVEL

502. Seminar in Theatre Management I (3)
Prerequisites: Acceptance into the MFA Program.
Study of contemporary principles of management processes specifically targeted to people pursuing professional Theatre Arts Management careers. Principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study.
Letter grade only (A-F). May be repeated to a maximum of 6 units. (2 hours lecture, 2 hours lab)

503. Leadership and the Arts (3)
Prerequisites: Acceptance into the MFA Program or senior standing and completion of THEA 476 or consent of instructor.
Study of contemporary principles of leadership and leadership development processes with special concern for application to people working in the arts. Context for leadership in arts organization is assessed and matched against students' personal leadership styles.
Letter grade only (A-F). (2 hours lecture, 2 hours lab)

504. Managing the Not-For-Profit Arts Organization (3)
Prerequisites: Acceptance into the MFA Program or senior standing and completion of THEA 476 or consent of instructor.
Study of principles of organizational management as applied to not-for-profit arts organizations. Issues include strategic planning and analysis, organizing, staffing, leading and controlling. Additionally studied are principles and practices of fundraising in not-for-profit environment.
Letter grade only (A-F).

505. Theatre Management Internship (3)
Prerequisites: Consent of instructor.
Required internship with local area theatre to provide management students with access to nationally recognized companies and the opportunity to work with leaders in the field.
Letter grade only (A-F).

507. Entertainment Law (3)
Prerequisite: Acceptance into the MFA Program.
Overview of legal aspects of entertainment business, especially in performing arts.
Letter grade only (A-F).

517. Repertory Theatre I (2)
Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units (6 hours lab)

518. Repertory Theatre II (2)
Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units (6 hours lab)

519. Repertory Theatre III (2)
Prerequisites: Acceptance into the MFA Program.
Design, preparation, rehearsals and performances of selected plays in California Repertory Company and University Players.
Letter grade only (A-F). May be repeated to a maximum of 4 units. (6 hours lab)

520A. Voice (3)
Practical study of vocal production for the actor and theory and practice of teaching voice and speech.
Letter grade only (A-F). (2 hours seminar, 2 hours activity)

520B. Voice (3)
Application of vocal technique into various styles of verse and prose for meaningful vocal expressiveness and into the creation and performance of self-scripted text.
Letter grade only (A-F). (2 hours seminar, 2 hours activity)

521A. Speech (3)
Practical study of speech production for the actor and theory and practice of the teaching of speech.
Letter grade only (A-F). (2 hours seminar, 2 hours activity)

521B. Speech (3)
Analysis and development of accents for performance and presentation.
Letter grade only (A-F). (2 hours seminar, 2 hours activity)

523. Theory and Practice of Contemporary Theatre (3)
Critical exploration of major schools of thought between 1980-present including styles, genres and both national and international trends. Contributions of theatre practitioners and theorists and role of audience in this period.
Letter grade only (A-F).

524. Dramaturgy (3)
Prerequisite: Acceptance into the MFA Program.
Dramaturgical approaches to textual analysis, dramatic structure and the theatrical event.
Letter grade only (A-F).

525. Theatrical Critical Theory (3)
History, analysis and application of dramatic critical theory (3 hours seminar)
Letter Grade Only (A-F)

526. Dramatic Theory and Criticism (3)
Study of the major theories of dramatic literature and performance. Analysis of dramatic works in relationship to theory, cultural context, and critical methodologies.
Letter grade only (A-F).
530B. Acting I (3)
Prerequisite: THEA 530A.
Praxis, theory and history related to teaching the art of acting. Focus is on work on the role and dramatic texts from Russian Psychological Realism.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

531A. Acting II (3)
Prerequisite: THEA 531A.
Praxis, theory and history related to the texts of William Shakespeare. A variety of approaches will be applied to acting and teaching methodologies when working in the dramatic canon of William Shakespeare.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

531B. Acting II (3)
Prerequisite: THEA 531A.
Praxis, theory and history related to acting in the dramatic texts of non-linear existential, absurdist authors as well as acting on camera in screenplays and teleplays. A variety of approaches will be applied to acting and teaching methodologies.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

540. Non-traditional Material Use in the Theatre (2)
Prerequisite: Consent of instructor.
Creative use of non-traditional materials in the design and fabrication of props, accessories and set dressing. Exploration into decorative techniques and processes in fabrication and finishing.
Letter grade only (A-F). (4 hours lab)

541. Portfolio Development (3)
Study of content and presentation forms of designer’s portfolio, resume and cover letter. Acquaints the designer/technician with interview skills and practical business information.
Letter grade only (A-F). (4 hours lab)

543./443. Special Applications In Theatrical Makeup (3)
Prerequisite: THEA 544 or consent of instructor.
Corequisite: THEA 517 or THEA 518 or THEA 519
Special effects and new trends in theatrical makeup design techniques for characterization and style. Design, preparation and application of theatrical makeup for University sponsored productions.
Letter grade only (A-F). (2 hours lecture, 2 hours lab.)

544. Visual Concepts in Theatre Design (3)
Foundations in visual conceptualization emphasizing development of visual discipline, creative skills and the poetic nature of theatre design.
Letter grade only (A-F). (4 hours lab)

545. Computer Aided Design for the Theatre (2)
Applications of two/three dimensional computer aided design/drafting programs to problems in technical theatre and design.
Course concentrates on application of 2D-CADD programs to common theatrical drafting problems. Course explores use of 3D-CADD programs as design tools in theatrical spaces.
Letter grade only (A-F). (4 hours lab)

546A. Advanced Costume Design I (2)
Development of costume design through character and script analysis, and understanding of line, space, color and texture.
Letter grade only (A-F). (4 hours lab)

546B. Advanced Costume Design I (2)
Prerequisite: THEA 546A or consent of instructor.
Exploration of elements of design as demanded by a variety of scripts and styles.
Letter grade only (A-F). (4 hours lab)

547./447. Costume Technical Skills (3)
Prerequisite: THEA 101, THEA 146, or consent of instructor.
Analysis of structure of costumes and accessories. Advanced technical projects using materials, patterning and construction methods in costume and accessories. Supervision in practical application of these elements in University sponsored productions.
Letter grade only (A-F). May be repeated for a maximum of 6 units in different semesters. (2 hrs. lecture, 2 hrs. lab).

548A. Advanced Lighting Design I (2)
Prerequisite: Consent of instructor.
Techniques of designing lighting for various stage forms.
Letter grade only (A-F). (4 hours lab)

548B. Advanced Lighting Design II (2)
Prerequisite: THEA 548A or consent of instructor.
Creative planning and development of lighting designs for specific productions.
Letter grade only (A-F). (4 hours lab)

550. Computer Graphics for Theatre (3)
A comprehensive study of tools and techniques incorporated in Adobe PhotoShop and their application to theatre. Techniques in scanning, digital image manipulation and exporting to hard and soft copies are covered.
Letter grade only (A-F). (1 hour lecture, 2 hours lab)

552. Collaborative Studies (3)
Explores aesthetic visions, directorial approaches, dramaturgical practices and performance styles. Use of collaborative study and presentation to expand creativity with the integration of methodologies as seen in professional arenas.
Letter grade only (A-F). (3 hours seminar)

554. Textile Applications in Theatre Design (2)
Exploration and creative application of techniques of manipulating, painting and dyeing textiles for theatrical design.
Letter grade only (A-F). (4 hours lab)

555. Virtual and Automated Lighting Design (2)
Comprehensive study in techniques of virtual and automated lighting design. Course includes practical instruction in WYSIWYG virtual lighting software; Emphasis Control software and hardware; Vari*Lite, Martin, and High End automated fixtures, and the Catalyst Media Server.
Letter grade only (A-F). (Activity 4 hours)

556A. Advanced Costume Design II (2)
Development of skills in visual communication and style, including advanced rendering techniques and presentation.
Letter grade only (A-F). (4 hours lab)

556B. Advanced Costume Design II (2)
Prerequisite: THEA 556A or consent of instructor.
Development of skills in research, interpretation, conceptualization and integrating multiple sources in design.
Letter grade only (A-F). (4 hours lab)

564A. Movement I (3)
Practical study in movement fundamentals, body mechanics, and non-verbal communication through the lens of several diverse theories. Theory and practice of the teaching of movement for actors.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

564B. Movement I (3)
Analytical and practical exploration of movement principles of weight, space, time, and energy and their application to the acting process
Letter grade only (A-F). (2 hours seminar, 2 hours activity).
565A. Movement II (3)
Practical study of clown work and mime for the actor and study in theory and practice of teaching clown and mime.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

565B. Movement II (3)
Practical and theoretical study of armed and unarmed combat for the stage. Covers technique, safety, choreography, and application to acting process.
Letter grade only (A-F). (2 hours seminar, 2 hours activity).

574. Directing (3)
Analysis and application of theatre directing theory in relation to the teaching of directorial research, textual analysis, conceptualization and collaborative design and rehearsal techniques
Letter Grade only (A-F)
2 hours seminar, 2 hours activity

580A. Scene Design I (2)
Development of scene design through script analysis and understanding of space, form, line, color, texture and mood. Planning and development of scenic rendering and model.
Letter grade only (A-F). (4 hours lab)

580B. Scene Design I (2)
Prerequisite: THEA 580A or consent of instructor.
Exploration of elements of scenic design as demanded by a variety of scripts and styles with specific challenges and complex production format.
Letter grade only (A-F). (4 hours lab)

581. Scenographic Techniques (2)
Study of drafting techniques used to translate designer's vision to finished set on stage. Includes both traditional and computer aided design and drafting tools.
Letter grade only (A-F). (4 hours lab)

583. Theatrical Patterning Methods (2)
Exploration of fitting, advanced patterning and construction techniques. Projects in fitting problems, flat patterning, draping, understructures and tailoring for theatre.
Letter grade only (A-F). (4 hours lab)

584. Rendering and Painting for Theatre (2)
Introduction to rendering basics and painting stressing links to art of theatre design. Developing ability to depict form and space. Emphasizes development of visual discipline, drawing and rendering techniques used in visual presentation of stage design and scenic painting.
Letter grade only (A-F). (4 hours lab)

585A. Scene Design II (2)
Projects in scene design for the multi-set play. Consideration of stylistic unity, current trends and approaches as well as shifting problems. Development of advanced rendering techniques.
Letter grade only (A-F). (4 hours lab)

585B. Scene Design II (2)
Prerequisite: THEA 585A or consent of instructor.
Further development of skills in scene design for multi-set play. Development of advanced model making techniques.
Letter grade only (A-F). (4 hours lab)

590. Selected Topics - Graduation Design (3)
Prerequisite: Consent of Instructor.
Advanced design projects and concepts with faculty supervision.
Letter grade only (A-F). May be repeated for a maximum of 9 units in different semesters. Topics announced in the Schedule of Classes.

N. Lighting

D. Scenery

C. Costumer

590A. Selected Topics - Graduation Design (3)
Prerequisites: Acceptance into the MFA Program.
Study of application of contemporary principles of management processes specifically targeted to people pursuing professional Theatre Arts Management careers. Applications of principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study.
Letter grade only (A-F). May be repeated to a maximum of 9 units.

602. Seminar in Theatre Management II (3)
Prerequisites: Acceptance into the MFA Program
Examination of all facets of professional theatre production including off-Broadway, Broadway, regional and stock operations.
Letter grade only (A-F).

614. Advanced Period Scene Study (3)
Prerequisite: Acceptance by audition into MFA program
Acting in Shakespeare and advanced scene study from selected theatrical periods and plays. Analysis and exercises include language, background, and human behavior.
Letter grade only (A-F).

628. Writing for the Theatre Professional (3)
Prerequisite: Admission to Theatre Arts MFA program
Development and practice of research, critical thinking, and writing skills for Theatre
Letter grade only (A-F).

648A. Advanced Lighting Design II (2)
Direct application of cueing and structuring of the total lighting design within the time constraints of rehearsal and production.
Letter grade only (A-F). (4 hours lab)

648B. Advanced Lighting Design II (2)
Prerequisites: THEA 648A or consent of instructor.
Development of skills in lighting design process for a variety of scripts and styles with specific challenges and complex production formats.
Letter grade only (A-F). (4 hours lab)

649A. Advanced Lighting Design III (2)
Development of skills in lighting for musical, opera, and dance.
Letter grade only (A-F). (4 hours lab)

649B. Advanced Lighting Design III (2)
Prerequisite: THEA 649A or consent of instructor.
Development of skills in lighting for other production venues.
Letter grade only (A-F). (4 hours lab)

656A. Advanced Costume Design III (2)
Development of skills in costume design for musical, opera, and dance.
Letter grade only (A-F). (4 hours lab)
656B. Advanced Costume Design III (2)
Prerequisite: THEA 656A or consent of instructor.
Development of skills in costume design for other production venues.
Letter grade only (A-F). (4 hours lab)

655A. Scene Design III (2)
Development of skills in scene design for musical, opera, and dance.
Letter grade only (A-F). (4 hours lab)

655B. Scene Design III (2)
Prerequisites: THEA 655A or consent of instructor.
Further development of skills in scene design for other production venues.
Letter grade only (A-F). (4 hours lab)

686. Theatrical Tailoring (2)
Investigation of tailored garments and understructures in selected historical periods. Projects in traditional and contemporary hand machine tailoring techniques, and in specialized construction for undergarments. Supervision in practical application of these elements in university sponsored productions.
Letter grade only (A-F). (4 hours lab)

690. Selected Topics in Theatre (1-3)
Prerequisite: Consent of the instructor.
Topics of current interest in Theatre Arts selected for intensive study.
Letter grade only. (A-F). May be taken for maximum of 9 units.
Topics announced in the Schedule of Classes. (2 hours lecture, 2 hours lab.)

694. Selected Topics in Theatre Arts (3)
Prerequisite: Consent of instructor.
Advanced individual projects with faculty supervision in an area of Theatre Arts specialization.
Letter grade only (A-F). May be repeated to a maximum of 9 units.
Limited to 3 units in any one area per semester and no more than 6 units in one semester with a total of 9 units in any one area.
Topics announced in the Schedule of Classes.
A. Acting
B. Directing
C. Costumes
D. Scenery
F. Playwriting
J. Theatre History
K. Theatre Criticism
L. Movement
M. Makeup
N. Lighting
O. Voice
P. Stage Management
Q. Theatre Management

696. Aesthetic Theory and Conceptualization (3)
Aesthetic theory as it applies to the creative act.
Letter grade only (A-F).

699. MFA Thesis/Project (1-6)
Prerequisite: Advancement to candidacy and consent of department chair.
Planning, preparation and completion of thesis related to field of specialization.
Letter grade only (A-F). May be repeated to a maximum of 6 units.
University Academic Programs

Vice Provost for Academic Affairs and Dean of Graduate Studies: Cecile Lindsay
Office: Academic Affairs

Educational Opportunity Program (EOP)

100. Educational Opportunity Program Orientation (2)
Introduction and orientation to college life for EOP students. Review of campus and community resources available to support students participating in the EOP. Instruction in various academic survival skills necessary for college success. Letter grade only (A-F).

UNIV 150. Research Career Exploration Sciences (3)
Prerequisites/Co-requisites: Composition II (AFRS 100, ASAM 100, CHLS 100, or ENGL 100)
The course is designed for entering or undeclared students to evaluate the diversity of career opportunities available to those having doctorate degree in the sciences. Students will develop knowledge and skills that are designed to cultivate curiosity and an identity as a scientist.
Letter grade only (A-F).

300. Orientation for EOP Transfer Students (1)
Assists with decisions regarding academic, professional and personal lives. Familiarizes students with University academic policies, MyCSULB, Beach board, library research tools and databases, exploration of academic programs and career options, refines study skills and provides network opportunities. Credit/No Credit grading only.

International Education (INTL)

400. Upper Division Coursework Taken at a Foreign University (1-4)
Advanced college level coursework completed at a foreign university under the auspices of a CSULB exchange program. Course content is planned in cooperation with CSULB faculty.

500. Graduate Level Coursework Taken at a Foreign University (1-4)
Graduate college level coursework completed at a foreign university under the auspices of a CSULB exchange program. Content is planned in cooperation with CSULB faculty. Letter grade only (A-F).

Internship Program

CBA 493. Business Internship (1-3)
Prerequisites: Classified business major, consent of instructor. Qualifying students placed in career-related paid assignments in private or public agencies or businesses. Organized plan utilizing series of seminars and learning agreements required with selected reading and writing assignments. May be repeated to a maximum of 6 units. A minimum of 120 hours paid experience per semester is required.

ED P 492. Internships in the Human Services (3)
Prerequisite: Consent of instructor. Students are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. Required 15 hour seminar focuses on personal values, interpersonal communications skills, critical thinking, and problem solving. Development of knowledge and skills transferable to future careers will be stressed.
A minimum of 120 hours field experience is required for the semester.

FEA 492. Internship (3)
Prerequisites: Senior standing in major or consent of instructor. Students intern with cooperating media facilities. Credit/No Credit grading only. May be repeated to a maximum of 6 units. (6 hours lab)

Supplemental Instruction (S/I)

60. Supplemental Instruction (1)
An adjunct support class tied to select general education courses. Students enroll in the target GE course and the SI class together.

University (UNIV)

101. Freshman Seminar for Undeclared Students (1)
Focuses on the transition between college learning and college life: self reflection, academic development, and educational planning. Instruction will include discussing connections, and providing a realization of what an integrated, holistic experience their college experience can be.
Credit/No Credit grading only.

200. U.S. Military Basic Training (3)
Prerequisite: GE Foundation requirements. For active U.S. military service members and veterans only. Credit granted with verification of successful completion of Basic Training for U.S. Army, Navy, Air Force, Marines, or Coast Guard.

296. Undergraduate Research Seminar: Entering Research I (1)
Prerequisite/Corequisite: Admission to and concurrent enrollment in the Undergraduate Research Opportunity Program or consent of faculty director. Introductory seminar to introduce students to academic and creative research. Topics include research ethics and methods, writing for research purposes, literature review, information literacy, and information technology. Includes research-focused field trips. Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters.
297. Undergraduate Research Seminar: Entering Research II (1)
Prerequisite/Corequisite: Admission to and concurrent enrollment in the Undergraduate Research Opportunity Program or consent of faculty director.
Advanced research seminar to support research engagement alongside a faculty sponsor. Topics include creating a successful research placement, advanced research ethics, research methods across the disciplines, diversity and multiculturalism in research, career exploration, and major preparation.
Letter grade only (A-F). May be repeated to a maximum of 2 units in different semesters.

300. Selected Topics in Civic Engagement in American Society (3)
Prerequisites: GE Foundation requirements, one or more Exploration courses, and upper division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Focuses on students with interests in civic engagement. Students investigate civic issues and will also travel to a geographic location affected by the issue engaging in service learning work.
May be repeated to a maximum of 6 units with different topics in different semesters. Topics announced in the Schedule of Classes.

301. Special Topics in Global Issues (3)
Prerequisites: Completion of GE foundation requirements, and one or more exploration courses, plus upper-division standing. Students must have scored 11 or higher on the GWAR Placement Examination or completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.
Course will focus on current topics with an emphasis on global issues or world societies. Students will investigate a global issue and another culture through a study abroad experience. Students will learn through experiential learning and substantial writing.
Travel-related expenses apply. May be repeated to a maximum of six units. Contact hours for course will be a significant portion of each day while abroad.

Writing Proficiency

WPE 10. Preparation for the WPE (1)
Non-baccalaureate-level course designed to prepare students for the Writing Proficiency Examination (WPE) for which a passing score is 11. Recommended for students who have not yet attempted the WPE or who have previously failed the test with a score of 8 or below.
Credit/No Credit grading only. May be repeated until the WPE is successfully passed. (Activity)

WPE 20. Preparation for the WPE (1)
Non-baccalaureate-level course designed to prepare students for the Writing Proficiency Examination (WPE) for which a passing score is 11. Recommended for students who have previously failed the WPE with a score of 9 or 10.
Credit/No Credit grading only. May be repeated until the WPE is successfully passed. (Activity)

ENGL 301A. English Proficiency (3)
Prerequisites: ENGL 100 or equivalent.
Intermediate course in English usage with emphasis on building proficiency in oral and written language.
Enrollment limited to students needing language development beyond skills acquired in ENGL 100, as assessed by scores on the Writing Proficiency Exam. May be used to satisfy the GWAR.
The University Honors Program provides a select pool of high-achieving students with a unique educational experience through a commitment to academic excellence and undergraduate research, mentorship and professionalism, and meaningful civic engagement both on campus and in local and global communities. These opportunities are supported by a close-knit community of scholars, faculty and staff to ensure students are thoughtfully and rigorously prepared for leadership roles, whether in the pursuit of advanced graduate degrees, and/or in personal and professional pathways in local and global settings. Honors students are eligible for merit-based financial support from President's Scholarships, and receive valuable benefits such as priority registration, small classes, individualized academic advising, and undergraduate research experiences.

University Honors Program offers students the best of a small college experience alongside the opportunities afforded by a comprehensive university setting. Students will be fully immersed in the learning process and therefore must have both the ability and willingness to do intense and often self-directed intellectual work as well as a desire to make the most of all opportunities available at and beyond the University. Students will be prepared to lead their communities with intellectual rigor, transformative vision, and global acumen. Students are expected to make a sustained commitment to excellence.

The University Honors Program offers a special approach to the General Education requirements of the University through a cohesive and unified program of study. The program consists of carefully selected courses and specially designed, multi-disciplinary seminars, most of which are applied toward the 48 units of General Education courses required for graduation of all students.

**Program Requirements**

Honors Plan I and II students must complete all respective plan requirements, all University-wide graduation requirements, and the requirements for their major. Honors is itself not a major.

1) Honors Plan I (minimum of 21 lower- and upper-division units) is designed for entering freshmen and consists of a minimum of 15 units of lower- and upper-division General Education, major, and/or elective Honors courses and a culminating 6-unit senior thesis/project (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

2) Honors Plan II (minimum of 15 upper-division units) is primarily designed for upper-division transfers from community colleges and continuing CSULB students. Honors Plan II consists of a minimum of 9 units of upper-division General Education, major, and/or elective Honors courses and a culminating 6-unit senior thesis/project (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

In addition to completing the number of academic units required for Honors Plan I or II, a student must maintain a cumulative GPA of 3.00 or higher in Honors and in all University courses attempted to earn an Honors Certificate. Students who fall below these required minimums are placed on Honors Probation until they have regained a GPA of 3.00 or higher in all GPA calculations. Additionally, students who have failed to enroll in courses for Honors credit for two consecutive semesters are not considered in good standing and will normally be withdrawn from the Program. Demonstrated lack of engagement in the CSULB Honors community or dishonest behavior/plagiarism are also grounds for dismissal from the University Honors Program.

**Admissions Requirements**

Detailed application guidelines can be found on the website of the University Honors Program at www.csulb.edu/uhp.

Incoming first-year students are invited to apply to Honors I (see website above for detailed admissions criteria). Normally, students should be in the upper ten percent of their high school classes, and have an ACT composite score of at least 24, and/or strong SAT scores, and a GPA of 3.5 or higher. Even if not all criteria are met, under special circumstances, applicants may be evaluated for admissions consideration by the Honors Program Director. Any continuing student who maintains a 3.5 or higher cumulative GPA at California State University, Long Beach and can accommodate 15 units of upper-division Honors coursework into his/her graduation timeline is eligible to apply to Honors II. CSULB students not meeting the designated criteria may petition for admission. These exceptional cases will be reviewed by the Director and the University Honors Program Advisory Board. Students are encouraged to petition if they have a good explanation for not meeting the basic requirements and/or a strong motivation to participate in the Program.

Transfer students may apply to Honors II, provided they have a minimum equivalent of a 3.5 GPA in all coursework at the accredited institution from which they are transferring. Where University Honors transfer agreements have been negotiated with a community college (such as with Long Beach City College), the terms and conditions of these agreements govern admission to the CSULB University Honors Program.

Please be advised that the University Honors Program offers a distinct Engineering Honors option for students pursuing a major in Engineering. These students must
meet specific application criteria and procedures that are outlined on the website indicated above. Admitted Engineering students follow the requirements of Honors Plan I or II.

**Honors in the Major**  
*(available in select majors only)*

Many CSULB majors provide students with an option to pursue Honors in the Major. Students in General Honors whose major department offers an Honors in the Major option may apply to participate in both programs, in which case the General Honors thesis requirement would be satisfied through the Honors in the Major option. Although Honors in the Major requirements may vary among departments, usually they entail independent study, seminar courses, high levels of performance, and senior projects or theses culminating in a broad knowledge of subject matter. Information concerning Honors in the Major is available in participating departmental offices.

**Admission Requirements**

Please contact the department office for information regarding admission. Normally, a student must be a declared major, usually with at least sophomore (30 units) standing.

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### Courses (UHP)

Special Honors sections of regular General Education (GE) courses in various departments as listed on the University Honors Program website at www.csulb.edu/uhp.

#### LOWER DIVISION

**100. Angles of Vision - Honors (3)**

Analytical and critical approaches leading to original and creative thinking. Development of seminar skills: preparation of analytical essays and oral presentations, examination of models and techniques of reasoning, conceptualization of research problems, writing documented paper.

**101. Art, Community, Place: The LA Interchange - Honors (3)**

Prerequisite/Corequisite: One GE Foundation course.

Explores cultural products and performances available in the Greater Los Angeles region; considers interdisciplinary understanding of how art enriches individuals and communities; investigates the arts community’s interest in sustainability.

Letter grade only (A-F).

**150. Exploring a Text - Honors (3)**

Prerequisite: ENGL 100 or GE Composition (Area A1).

Close reading of a work (or works) of literature - fiction or non-fiction - exploring issues of personal identity, moral choice, freedom and commitment.

Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

**201. Sustainability and Technology in Los Angeles - Honors (3)**

Prerequisite/Corequisite: One Category B.2 GE Foundation course.

Explores major scientific issues behind our understanding of sustainability such as biodiversity, population, food and water resources, climate change, energy, public health, and the overall forecast for the environment and the human condition for the next several decades. Laboratory activities include combinations of field-trips, collecting data, and in-class analysis and reporting.

Letter grade only (A-F).

#### UPPER DIVISION

**300. Junior Colloquium - Honors (3)**

Studies of selected interdisciplinary topics, problems or issues with a view toward integration of the areas of study involved in lower-division courses.

Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

**301. Politics and Policy in Los Angeles - Honors (3)**

Prerequisites: GE Foundation and upper-division status.

Examines politics and policy in Los Angeles and the surrounding region, including a consideration of governing structures, demographic trends and needs, environmental issues, and growth and development patterns, and relies on service-learning to inform work inside the classroom.

Letter grade only (A-F).

**401. The History of Los Angeles: Invention of a City - Honors (3)**

Prerequisites: GE Foundation and upper-division status.

Interdisciplinary examination of the history of Los Angeles, one of the most diverse cities in the world. Traces the social, economic, and cultural features of Los Angeles’s urban development from the eighteenth century to the present.

Letter grade only (A-F).

**490. Selected Topics - Honors (3)**

Identification and critical analysis of current problems in selected areas.

Letter grade only (A-F). May be repeated to a maximum of 6 units with different topics.

**496. Research Participation - Honors (3)**

Prerequisite: Consent of program director and supervising faculty.

Independent research for the UHP senior thesis/project; conducted under the supervision of a faculty mentor and the program director.

Letter grade only (A-F).

**497. Directed Studies - Honors (1-3)**

Prerequisite: Consent of program director and supervising faculty.

Independent study under supervision of a faculty member.

Letter grade only (A-F). May be repeated to a maximum of 6 units.

**498. Senior Thesis/Project - Honors (3)**

Prerequisite: Consent of program director and supervising faculty.

Final completion of a thesis or a project; or an exhibit or a performance.

Letter grade only (A-F).
WOMEN'S, GENDER, AND SEXUALITY STUDIES
College of Liberal Arts

Department Chair: Jennifer Reed
Office: MHB-819
Telephone: (562) 985-4839
Website: http://www.cla.csulb.edu/departments/wgss/
Faculty: Lori Baralt, Elyse Blankley (English), Norma Chinchilla (Sociology), Stacy Macias, Jennifer Reed, Shira Tarrant
Academic Advisor: See department office for more information
Administrative Support Coordinator: Roberta Bogart

Career Possibilities

Introduction
The Department seeks to provide students with skills in civic literacy that are a significant part of a 21st century university education. At the heart of this is the assertion that gender and sexuality are fundamental categories of social organization and power that are inseparable from race, ethnicity, class, nationality, and other categories of difference.

The Department offers a major, a minor, and a minor in Queer Studies. Designated WGSS courses may be used to fulfill General Education requirements for students of other majors.

Bachelor of Arts in Women's, Gender, and Sexuality Studies (120 units)

Requirements
This program requires 45 units. Take 7 core courses and 8 WGSS electives in consultation with your advisor.

Core
Take all of the following courses:
WGSS 101 Gender, Race, Sex, and the Body (3) Prerequisite/Corequisite: One GE Foundation course.
WGSS 102 Gender, Race, Sex and Societies (3) Prerequisite/Corequisite: One GE Foundation course.
WGSS 300 Feminist Principles (3) Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
WGSS 301 Feminist Research Methods (3) Prerequisites: Upper division standing and the completion of at least one other WGSS course.
WGSS 415 Feminist Debates (3) Prerequisites: WGSS 300 or consent of instructor.
WGSS 495 Senior Capstone Seminar (3) Prerequisite: WGSS 301.
WGSS 496 Internship (3) Prerequisites: Upper division standing and two prior WGSS courses, or consent of instructor.

At least 18 of the elective units must be taken from the following list: WGSS 205, WGSS 216, WGSS 305, WGSS 307, WGSS 308, WGSS 314, WGSS 315, WGSS 316, WGSS 318, WGSS 356, WGSS 365, WGSS 370, WGSS 375, WGSS 401, WGSS 410, WGSS 416, WGSS 420, WGSS 424, WGSS 425, WGSS 430, WGSS 432, WGSS 442, WGSS 445A, WGSS 490, or WGSS 499.

Note: Students must earn a grade of at least "C" in all upper division major courses.

Minor in Women's, Gender, and Sexuality Studies

Requirements
A minimum of 18 units will be required.
Take the three following courses:
WGSS 101 Gender, Race, Sex and the Body (3) Prerequisite/Corequisite: One GE Foundation course.
WGSS 102 Gender, Race, Sex and Societies (3) Prerequisite/Corequisite: One GE Foundation course.
WGSS 300 Feminist Principles (3) Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.

Take any 3 additional WGSS courses (9 units).

Minor in Queer Studies
Queer Studies is an interdisciplinary minor that focuses on non-normative sexuality as a primary category of analysis. Queer Studies starts from the assumption that sexuality is central to human social organization; is always experienced in continually shifting contexts; and lived in relation to race, religion, class, nation, and gender. Its methods and premises grow out of scholarship on gender and thus is housed in the Women's, Gender, and Sexuality Department.

A minimum of 18 units chosen from the following list of courses, chosen in consultation with the Queer Studies Advisor. WGSS majors may "double-count" only one course at the maximum for both their WGSS major and Queer Studies minor.

Requirements
Take both of the following courses:
WGSS 205 Introduction to Queer Studies (3) Prerequisites: GE Foundation requirements.
WGSS 416 Queering Gender (3) Prerequisite: Upper-division standing.

Choose any four of the following courses:
ASAM 370, AIS/WGSS 313, CHLS 330, CRJU 461/WGSS 417, HIST 395, RST/WGSS 303, WGSS 305, WGSS 370, WGSS 375, WGSS 356, WGSS/ENGL 442
Courses (WGSS)

LOWER DIVISION

101. Gender, Race, Sex and the Body (3)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to the rapidly expanding body of literature ideas related to the gendered aspects of health and sexuality with an emphasis on women.

102. Gender, Race, Sex and Societies (3)
Prerequisite/Corequisite: One GE Foundation course.
Introduction to some of the basic questions raised by feminist movements and writings in response to the socio-political subordination of women emergent through the organization of race, class, gender and sexuality in contemporary societies.

205. Introduction to Queer Studies (3)
Prerequisites: GE Foundation requirements.
Introduction to the interdisciplinary field of queer studies. Focus is on the relationship between gender and sexualities. Prepares students for further study in gender and sexuality studies.

216. Hollywood and Beyond: Gender, Race, and Sex in the Movies (3)
Prerequisite: GE Foundation requirements.
Explores ideologies of gender, race, sexuality, and class in mainstream and independent films. Focus is on learning to critically evaluate representations of identity and their social and political significance, including hegemonic and alternative representations.

UPPER DIVISION

General Education Category A must be completed prior to taking any upper division course except upper division language courses where students meet formal prerequisites and/or competency equivalent for advanced study.

300. Feminist Principles (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
Introduction to principles of feminist history, thought, theory, methodology, and current issues that emphasizes but is not limited to the United States.
Letter grade only (A-F).

301. Feminist Research Methods (3)
Prerequisites: Upper division standing and the completion of at least one other WGSS course.
Examines how feminist scholars frame and conduct research. Students explore feminist adaptations and critiques of traditional academic disciplines and design and conduct a research project using a range of bibliographic and research tools.
Letter grade only (A-F).

303. Queer Spirit (3)
Prerequisites: GE Foundations Completed, one or more Exploration classes completed, and upper division standing.
Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Queer written analysis of the integrated spiritual, psychological, social and physiological aspects of Abrahamic, Eastern, Indigenous, Neo-pagan, secular, and race/class/gender/nation/sustainability-defined spiritual and religious traditions.
Letter Grade Only (A-F). Same Course as RST 303, Not open for credit to students with credit in RST 303.

305. Feminist and Queer Arts and Cultures (3).
Upper-division status and students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).
Explores specific cultural and/or artistic expressions created by and for feminist and queer communities in both historical and contemporary contexts. Writing intensive.

307. U.S. Women and the Economy: Money, Sex, and Power (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper division standing.
Interdisciplinary examination of the economic roles of women; analysis of the sexual division of labor and domestic work. Special focus on the origin, migration, settlement, and economic patterns of and problems facing US women from major ethnic and racial groups.

308. Women and the Law (3)
History of women's experience under the law; constitutional law; 19th amendment and ERA; equal protection issues; discrimination in employment; marriage and family law.

313. American Indian Genders and Sexualities (3)
Analysis of popular, feminist, queer and tribally specific theories and representations of American Indian genders and sexualities with a focus on literatures by American Indian women, men and two-spirit peoples.
Same course as AJS 313. Not open for credit to students with credit in AJS 313.

314. Women Narrate Their Lives (3)
Study of lives of a cross-section of women in U.S. from colonial era to present based on biographical and autobiographical sources.

315. Black Women in America (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
Examination of American black women from eighteenth century to present. Taught from interdisciplinary perspective and presented in their own voices.
Letter grade only (A-F).

316. Women in the History of U.S. Film (3)
History of women as they are represented, presented as images, or constructed in the development of U.S. film. Theory and analysis of film from a feminist perspective.
Same course as FEA 317. Not open for credit to students with credit in FEA 317.

318. U.S. Women of Color (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
Examines condition, position, experiences and accomplishments of U.S. women of color. Covers historical and contemporary issues using theoretical essays, personal narratives, historical documents, literature, and media images.

320. Latina Women in the United States (3)
Prerequisite: Junior standing or consent of instructor.
Examines cultural, political, economic, and sexual forces that mold Latina women. Focus on cultural stereotypes, class, gender identity, sexuality, and politics of race.
Same course as CHLS 415. Not open for credit to students with credit in CHLS 415.
325. Sociology of Gender (3)
A sociological analysis of social, political and economic status of women. Examines history of women's roles and status; gender conflicts and social movements; and societal attitudes towards women in society.

Same course as SOC 325. Not open for credit to students with credit in SOC 325.

339. Global Feminisms (3)
Prerequisites: GE Foundations
What kind of feminist movement is possible when women across the globe have such different visions of what it means to thrive? This course examines the lives, activism, and movements these different visions engender, arguing for solidarity across diversity.

Same course as I/ST 339. Not open for credit to students with credit in I/ST 339.

Letter Grade Only (A-F).

356. Lesbian Histories and Culture (3)
Examination of lesbianism from psychological and historical perspectives; includes discussions of lesbianism in literature, representations of lesbianism in various media; the place of lesbianism in the politics of the women's movement and in gay liberation, and the development of "queer theory."

365. Popular Culture: Women, Gender and Sexuality (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper division standing.

Analyzes the construction of images of women in popular culture. Discussion of theories of culture, gender and ideology. Analysis of film, advertising, magazines and popular fiction.

370. Masculinities (3)
Prerequisite: Upper-division status.

Students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone (subject to approval by the General Education Governing Committee (GEGC)).

This course focuses on understanding contemporary social and political issues in relation to masculinity. Thematic areas include: the social construction of masculinity, militarism, men and violence, sexuality, sports, work, media and masculinity, men and feminism, and possibilities for change. Upper-division status. Writing intensive.

375. Reproductive Justice (3)
Prerequisites: Upper-division status or instructor consent

Explores how race, class and sexuality intersect with political and socio-economic forces in shaping women's reproductive lives. Highlights how women have contested these forces to control their own reproductive lives.

382. Women and Literature (3)
Prerequisites: GE Foundation requirements.

Survey of literature by women authors writing in English, across a range of historical periods; examination of works in various genres that present complexity of women's lives and challenges of female authorship; exploration of feminist critical approaches.

Same course as ENGL 382. Not open for credit to students with credit in ENGL 382.

401. Bodies and Borders: Feminism and Globalization (3)
Prerequisites: GE Foundation requirements, one or more Explorations courses, and upper division standing.

Covers feminist perspectives on contemporary globalization. Examines how we might imagine a more equitable world and why feminism should be concerned with global perspectives. Topics include colonialism, tourism, food production, women's labor, migration, militarism, and social movements.

402. Women in Political Theory (3)
Prerequisite: Upper-division status; completion of GE foundation; students must have scored 11 or higher on the GWAR Placement Examination or successfully completed the necessary portfolio course that is a prerequisite for a GWAR Writing Intensive Capstone.

Study of the evolution of feminist arguments in Western political thought and the process by which gender has come to be regarded as a critical category equal in importance to race, class, ethnicity, sexual orientation, and religion.

Same course as POSC 401. Not open for credit to students with credit in POSC 401.

406. Women, Gender, and Sexuality in Asia (3)
Prerequisite: Upper division standing.

Exploration of gender history in Asia from prehistory to the present. Major themes include gender traditions, women's contributions to social, cultural and political change, and the complex relationship between feminism and nationalism in the modern period.

Same courses as HIST 406 and A/ST 406A. Not open for credit to students with credit in A/ST 406A and HIST 406.

410. Women, Religion, and Spirituality (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing, or consent of instructor.

Study of women as spiritual and religious beings responding to and coping with largely patriarchal religious doctrine. Examines socio-religious construction of women and women's religious experience from prehistory to present day. Focus on feminist transformations of religious traditions.

Same course as R/ST 410. Not open for credit to students with credit in R/ST 410.

415. Feminist Debates (3)
Prerequisites: WGSS 300 or consent of instructor.

Examines a variety of contemporary feminist theoretical perspectives, including liberal, radical, Marxist/socialist, psychoanalytic, existentialist and postmodernist, woman of color feminism, and ecofeminism. We highlight intersectional issues of gender and sexuality, race, ethnicity, class, and nationality.

Letter grade only (A-F).

416. Queering Gender (3)
Prerequisite: Upper division standing.

Explores intellectual debates in the emergent field of queer theory, particularly as it connects to women's experiences and the politics of gender. Focuses on the intervention that queer theory seeks to make into heteronormative culture on all levels of social life.

417. Sexuality, Crime and Punishment (3)
Prerequisites: CRJU majors: A grade of "C" or better in CRJU 101, CRJU 110, CRJU 302, CRJU 303, and CRJU 304. All other majors: upper division standing and at least one other WGSS course, or consent of the instructor.

A transdisciplinary and critical examination of the accepted boundaries of human sexual behavior and opposing perspectives regarding the roles of criminal justice actors and institutions in regulating sex and sexuality, with special attention paid to sex-related crimes, offender and victims.

Same course as CRJU 461. Not open for credit to students with credit in CRJU 461.

420. Mothers and Daughters (3)
Analyze how mothering is “reproduced” in daughters, and why/how patriarchal culture regulates the mother/daughter bond. Course materials include novels, film, and interdisciplinary theoretical works. Special emphasis on the mother/daughter relationship in a range of historical, racial, class and sexual contexts.
424. Women and Environmental Justice (3)
Prerequisites: GE Foundation requirements and upper division standing.
Examines complex relationship between women and nature and their treatment through 1) socio-religious ideologies, 2) international development, 3) environmental pollution, and 4) patterns of consumption and waste in industrialized nations. Third World feminists’ insights largely frame the debate.

425. Women and Power (3)
Prerequisites: A previous WGSS class (WGSS 101, WGSS 102, or WGSS 300) and upper division standing or consent of instructor.
Examination of ways power has been defined, obtained, shaped and maintained, and effect this has historically had on women. Applies theory to contemporary issues affecting women and explores strategies for empowerment.

430. Women and Violence (3)
Women as victims and survivors of physical, psychological, and philosophical violence. Problems of rape, woman battering, incest, pornography and sexual harassment; examination of legal, religious and philosophical issues and alternatives for change.

432. Women in the City (3)
Examines the way women respond to urban environment, both literally and imaginatively. Special attention paid to sexual division of space, particular needs of immigrant and third world women, and utopian cities of sisterhood. Readings feature literary texts, augmented by an interdisciplinary range of theoretical and empirical studies of cities.

442. Sexing Chicana Literature (3)
Prerequisites: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
Analyzes how Chicana authors explore race, class, and gender. Focuses on use of sexuality, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes will include desire, identity, empowerment through "traditional" roles, and violence and the body.
Same course as ENGL 442. Not open for credit to students with credit in ENGL 442.

445A. Latinas and Revolution: Central America and Late 20th Century Mexico (3)
Prerequisite/Corequisite: ENGL 100 or GE Composition (Area A1) and upper division standing or consent of instructor.
Examines how war and struggles for democracy shape the social consciousness and political activism of Latinas. Uses literature, film, history, and political theory to examine the role of violence in women’s lives, community organizing, and the conceptualization of a pan-Latina feminist movement.
Letter grade only (A-F). Same course as CHLS 450A. Not open for credit to students with credit in CHLS 450A.

455. Philosophical Perspectives on Sex and Love (3)
Prerequisite: Six units of philosophy or consent of instructor.
Philosophical perspectives on sex and love explores philosophical issues concerning sex, gender and love through readings and discussion of classical and contemporary philosophical sources. Topics such as sexual perversion, romantic love and gender discrimination are examined.
Same course as PHIL 455. Not open for credit to students with credit in PHIL 455.

462. Gender, Place and Culture (3)
Prerequisite: GEOG 360 or WGSS 300 or consent of instructor.
A human geography approach to examining intersections of gender, place and culture. Topics include: body spaces; geographies of sexualities; emotion, care and health; migration, environmental and social justice; feminist post-structural theories and philosophies; and feminist methodological approaches to geographic research.
Letter grade only (A-F). Same course as GEOG 462. Not open for credit to students with credit in GEOG 462.

475. Language and Gender in Cross-Cultural Perspective (3)
Analysis of men’s and women’s communication in its social and cultural context; role of gender in interpreting conversational interactions in the U.S. and elsewhere; acquisition of gender differences; cultural dimensions or perceptions and stereotypes and their effect on communication.
Same course as ANTH 475, LING 470. Not open for credit to students with credit in ANTH 475 or LING 470.

485A. History of Women in the U.S. Early Period (3)
Prerequisite: GE Foundation requirements.
Survey of roles and activities of American women from colonial period to 1850, with focus on slavery, immigration, family, economy, law, and politics.
Same course as HIST 485A. Not open for credit to students with credit in HIST 485A.

485B. History of Women in the U.S. Since 1850 (3)
Prerequisite: GE Foundation requirements.
Changing roles and status of women in economic and social change; suffrage movement; women in union movement and WW II; the decade of the sixties and the “second wave” of feminism.
Same course as HIST 485B. Not open for credit to students with credit in HIST 485B.

490. Selected Topics in Women’s, Gender, and Sexuality Studies (1-3)
Topics of current interest in women’s studies, selected for intensive study.
May be repeated to a maximum of 6 units with different topics.
Topics announced in the Schedule of Classes.

492. Selected Topics in Women’s, Gender, and Sexuality Studies (1-3)
Topics of current interest in women’s studies, selected for intensive study.
May be repeated to a maximum of 6 units with different topics.
Topics announced in the Schedule of Classes.

495. Senior Capstone Seminar (3)
Prerequisite: WGSS 301.
Capstone course intended to integrate the multidisciplinary body of knowledge accumulated in the major or minor.

496. Internship (3)
Prerequisites: Upper division standing and two prior women’s studies courses, or consent of instructor.
Allows students opportunity to practice theories and knowledge gained as a result of studying women’s issues. Students will work in community with agencies addressing women’s issues.

498. Field Work (1-3)
Prerequisite: Consent of instructor.
Practical experience in campus or community organizations concerned with women’s issues.
May be repeated to a maximum of 6 units.
499./599. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent work in areas of special interest to student and instructor.
May be repeated to a maximum of 6 units.

GRADUATE LEVEL
599./499. Directed Studies (1-3)
Prerequisite: Consent of instructor.
Independent work in areas of special interest to student and instructor.
May be repeated to a maximum of 6 units.
Election of Regulations for Degree Requirements (Catalog Rights)

Undergraduate students acquire “catalog rights” with respect to the requirements for a degree program by maintaining “attendance” continuously. This means that, if continuous attendance is maintained and the degree objective is not changed, students may choose to graduate under the requirements for the degree in effect 1) at the time they began the study in a California community college or another campus of The California State University, 2) at the time they entered CSULB, or 3) at the time of graduation from CSULB. Substitutions for discontinued courses may be authorized or required by the Dean of the College. Students who change their major, including changing from “undeclared” status to a defined degree objective or from one option to another option under the same degree, are governed by the degree major requirements in effect at the time of the change or declaration of major. Students who change majors are advised that some courses counted for General Education or double counted for General Education and a major may become unacceptable for General Education in connection with a new major. These students should check with the University Center for Undergraduate Advising or their major advisor.

The term “attendance” means, literally, attendance in a course for at least one semester (or quarter) unit credit in at least one semester (or two quarters) in a calendar year, culminating in a record of enrollment on the student’s official transcript. For the purpose of establishing catalog rights, the course must be at the baccalaureate or graduate level in a California Community College, a California State University, or a University of California campus. Enrollment resulting in a withdrawal (the grading symbols W, WE or WU) does not count as attendance in a course, therefore does not preserve “catalog rights.”

Once “catalog rights” are established, absence related to an approved medical, military or academic leave or for attendance at another accredited institution of higher education will not be considered an interruption of attendance, provided that the absence does not exceed two years (see Educational Leave).

Failure to remain in continuous attendance will mean that the student must meet the regulations current at the time of resuming the degree program or those applicable at the time of graduation. In addition, for graduate students, a failure to maintain continuous attendance means the automatic revocation of “candidacy” for the degree (advancement to candidacy) and of “catalog rights.”

Changes in Rules and Policies

Although every effort has been made to assure the accuracy of the information in this Catalog, students and others who use this Catalog should note that laws, rules, and policies change from time to time and that these changes may alter the information contained in this publication. Changes may come in the form of statutes enacted by the Legislature, rules and policies adopted by the Board of Trustees of the California State University, by the Chancellor or designee of the California State University, or by the President or CSULB designee. It is not possible in a publication of this size to include all of the rules, policies and other information that pertain to students, the institution, and the California State University. More current or complete information may be obtained from the appropriate department, college, or administrative office.

Nothing in this Catalog shall be construed as, operate as or have the effect of an abridgment or a limitation of any rights, powers, or privileges of the Board of Trustees of the California State University, the Chancellor of the California State University, or the President of the campus. The Trustees, the Chancellor, and the President are authorized by law to adopt, amend, or repeal rules and policies that apply to students. This Catalog does not constitute a contract or the terms and conditions of a contract between the student and the campus or the California State University. The relationship of students to the campus and the California State University is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the Presidents and their duly authorized designees.

The Federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at http://www.sss.gov.

Information concerning the academic programs of CSULB may be obtained from the Office of the Provost, BH 303, at (562) 985-4128 and may include:
1. the current degree programs and other educational and training programs;
2. the instructional, laboratory, and other physical plant facilities which relate to the academic program;
3. the faculty and other instructional personnel;
4. data regarding student retention at CSULB and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest; and
5. the names of associations, agencies, or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution’s accreditation, approval, or licensing.
Graduation Rates

Over 70% of students who begin CSULB as freshmen eventually earn baccalaureate degrees and 65% do so within six years. Over 85% of CSULB transfer students eventually earn baccalaureate degrees and over 79% do so within four years of transferring.

CSULB’s current graduation rates are higher than most other public, comprehensive universities of similar large size, funding and student mix. CSULB graduation rates have been improving and the campus continues to work toward still more gains.

Graduation Rates for All Freshmen

<table>
<thead>
<tr>
<th>Starting Fall Cohort Term</th>
<th>6-Year Graduation Percentage</th>
<th>Estimated Eventual Graduation Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>64.9</td>
<td>72.5</td>
</tr>
<tr>
<td>2007</td>
<td>60.0</td>
<td>70.6</td>
</tr>
<tr>
<td>2006</td>
<td>56.6</td>
<td>67.1</td>
</tr>
<tr>
<td>2005</td>
<td>53.3</td>
<td>64.7</td>
</tr>
<tr>
<td>2004</td>
<td>53.2</td>
<td>64.0</td>
</tr>
<tr>
<td>2003</td>
<td>53.5</td>
<td>64.0</td>
</tr>
</tbody>
</table>

Graduation Rates for All Transfer Students

<table>
<thead>
<tr>
<th>Starting Fall Cohort Term</th>
<th>4-Year Graduation Percentage</th>
<th>Estimated Eventual Graduation Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>79.34</td>
<td>86.11</td>
</tr>
<tr>
<td>2009</td>
<td>77.6</td>
<td>85.8</td>
</tr>
<tr>
<td>2008</td>
<td>71.4</td>
<td>81.2</td>
</tr>
<tr>
<td>2007</td>
<td>69.1</td>
<td>78.9</td>
</tr>
<tr>
<td>2006</td>
<td>67.7</td>
<td>77.7</td>
</tr>
<tr>
<td>2005</td>
<td>68.0</td>
<td>77.2</td>
</tr>
</tbody>
</table>

Recent graduates who began as freshmen took an average of 5.19 years to complete baccalaureate degrees (for graduates whose degrees were awarded in the college year 2012-13). Among freshmen, time to degree is quicker for students who arrive well prepared academically, especially in math and English.

Recent graduates who began as junior transfers graduated in an average of 2.74 years (for graduates whose degrees were awarded in the college year 2012-13). Average time to degree is significantly longer for engineering. Among transfers, time to degree is quicker for students who have received good advising in a community college and who have completed proper major preparation courses. Some transfers at CSULB having taken more units than the transfer minimum and with courses that cannot be credited toward degrees.

<table>
<thead>
<tr>
<th>College of Major</th>
<th>Average years to degree completion for students coming as freshmen</th>
<th>Average years to degree completion for students coming as transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Human Services</td>
<td>5.23</td>
<td>2.58</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>4.48</td>
<td>2.42</td>
</tr>
<tr>
<td>Business Administration</td>
<td>5.02</td>
<td>2.84</td>
</tr>
<tr>
<td>Education</td>
<td>5.42</td>
<td>3.43</td>
</tr>
<tr>
<td>Engineering</td>
<td>5.56</td>
<td>3.63</td>
</tr>
<tr>
<td>The Arts</td>
<td>5.39</td>
<td>2.98</td>
</tr>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>5.43</td>
<td>3.48</td>
</tr>
</tbody>
</table>

Completing a baccalaureate degree in a reasonable period of time is an important goal for students and parents. Baccalaureate degrees typically require 120-132 units (about 40-44 courses). Earning a 120-unit degree within four years requires full time attendance (15 or more units per semester) and is a “full-time job” that requires about 45 hours per week attending class and studying. Degrees in engineering, sciences and the arts generally require more courses and timely completion requires attending winter session, summer session and/or attending longer than four years. CSULB continues to work to reduce time to degree for freshmen and for transfer students.

CSULB has an obligation, under the federal Student Right-To-Know law, to provide information regarding graduation rates to prospective and current students. The “six-year freshman cohort graduation rate” describes the percentage of students who began as freshmen and completed degrees within six years at the same campus. Although important, this measure does not provide complete information, because some students take longer than six years to graduate, some come as transfer students, and some attend several undergraduate institutions before receiving baccalaureate degrees. The tables here show 6-year freshman and 4-year transfer cohort rates and estimated total eventual graduation rates for both freshmen and transfer students. Estimated eventual graduation rates are based on a methodology developed by the California State University system that takes into consideration the number of students still enrolled in good academic standing at the six-year point in time.
Accreditation

The University is accredited by the Western Association of Schools and Colleges (985 Atlantic Avenue, Suite 100, Alameda, CA 94501, 510-748-9001), the agency responsible for granting regional accreditation to colleges and universities in California, Hawaii, and Guam. It is accredited by the California State Board of Education and is on the list of approved institutions of the American Association of University Women. Additional information concerning University accreditation may be obtained from the Office of the Provost. Additional information concerning departmental accreditation may be obtained from the department concerned or the Office of the Provost.

• American Language Institute, CCPE – Commission on English Language Program Accreditation, 1725 Duke Street, Suite 500, Alexandria, VA 22314-3457, phone: 703-519-2070

• Art – National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248, Telephone: 703-437-0700, Fax: 703-437-6312, E-mail: info@arts-accredit.org

• Business Administration – ACSB International – The Association to Advance Collegiate Schools of Business (AACSB), 777 South Harbour Island Boulevard, Tampa, FL 33602, Phone: 813-769-6500, Fax: 813-769-6559, E-mail: jerryt@aacsb.edu, Web: www.aacsb.edu

• Biochemistry (undergraduate) – American Society for Biochemistry and Molecular Biology (ASBMB), 11200 Rockville Pike, Suite 302, Rockville, MD 20852, Phone: 240-283-6840, Web www.asbmb.org

• Chemistry (undergraduate) – American Chemical Society, Committee on Professional Training, 1155 16th Street, NW, Washington, DC 20036, Phone: 202-872-4589

• Communicative Disorders (graduate) – American Speech-Language-Hearing Association, (ASHA) Council on Academic Accreditation in Audiology, nd Speech-Language Pathology, 10801 Rockville Pike, Rockville, MD 20852, Phone: 301-897-0140, Fax: 301-571-0481, E-mail: ptlice@asha.org, Web: www.asha.org/about/academia/ accreditation/

• Dance – National Association of Schools of Dance (NASD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, Phone: 703-437-0700, Fax: 703-437-6312, E-mail: info@arts-accredit.org, Web: www.arts-accredit.org

• Design – National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248, Telephone: 703-437-0700, Fax: 703-437-6312, E-mail: info@arts-accredit.org

• Dietetics (didactic program) – Accreditation for Dietetics Education (CADE-ADA), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606, Phone: 312-899-4872, Fax: 312-899-4817, E-mail: bmitchell@eatright.org, Web: www.eatright.org/cade

• Education – National Council for Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue NW, Suite 500, Washington, DC 20036, Phone: 202-466-7496, Fax: 202-296-6620, E-mail: ncate@ncate.org, Web: www.ncate.org

• Engineering (undergraduate): Aerospace, Chemical, Civil, Computer, Electrical, Engineering Technology, Mechanical) – Accreditation Board for Engineering and Technology, Inc. (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202, Phone: 410-347-7700, Fax: 410-625-2238, E-mail: info@abet.org, Web: www.abet.org

• Family and Consumer Sciences – American Association of Family and Consumer Sciences (AACFS), Council for Accreditation (CFA), 400 North Columbus Street, Suite 202, Alexandria, VA 22314, Phone: 703-706-4600, 800-424-8080, Fax: 703-706-4663, E-mail: gmcginnis@aafcs.org, Web: www.aafcs.org

• Health Care Administration – Association of University Programs in Health Administration (AUPHA), 2000 14th Street North Suite 780, Arlington, VA 22201, Phone: 703-894-0960, Fax: 703-894-0941, Web: www.aupha.org; Commission on Accreditation of Healthcare Management Education (CAHME), 2111 Wilson Blvd., Arlington, VA 22201, Phone: 703-351-5010, Fax: 703-991-5989, E-mail: info@cahme.org, Web: www.cahme.org; Commission on Collegiate Nursing Education (CCNE), One Dupont Circle NW, Suite 530, Washington, DC 20036, Phone: 202-887-6791, Fax: 202-887-8476, E-mail: jbutlin@aacn.nche.edu, Web: www.aacn.nche.edu/accreditation

• Health Science (graduate) – Commission on Collegiate Nursing Education (CCNE), One Dupont Circle NW, Suite 530, Washington, DC 20036, Phone: 202-887-6791, Fax: 202-887-8476, E-mail: jbutlin@aacn.nche.edu, Web: www.aacn.nche.edu/accreditation; Council on Education for Public Health (CEPH), 1015 15th Street, NW, Washington, DC 20005, (202) 789-1050

• Journalism and MA Mass Communications–Accrediting Council on Education in Journalism and Mass Communications (ACEJMC) Stauffer-Flint Hall, 1435 Jayhawk Blvd., Lawrence, KS 66045-7575, Phone: 785-864-3973, Fax 785-864-5225, Web: http://www2.ku.edu/~acejmc/

• Music – National Association of Schools of Music (NASM), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, Phone: 703-437-0700, Fax: 703-437-6312, E-mail: info@arts-accredit.org, Web: www.arts-accredit.org

• Nursing – Commission on Accreditation of Healthcare Management Education (CAHME), 2111 Wilson Blvd., Arlington, VA 22201, Phone: 703-351-5010, Fax: 703-991-5989, E-mail: info@cahme.org, Web: www.cahme.org; Commission on Collegiate Nursing Education (CCNE), One Dupont Circle NW, Suite 530, Washington, DC 20036, Phone: 202-887-6791, Fax: 202-887-8476, E-mail: jbutlin@aacn.nche.edu, Web: www.aacn.nche.edu/ accreditation; Council on Education for Public Health (CEPH), 1015 15th Street, NW, Washington, DC 20005, (202) 789-1050

• Physical Therapy – American Physical Therapy Association (APTA), Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314, Phone: 703-706-3245, Fax: 703-838-8910, E-mail: accreditation@apta.org, Web: www.capteonline.org

• Public Policy and Administration – National Association of Schools of Public Affairs and Administration (NASPAA), Commission on Peer Review and Accreditation (COPRA), 1120 G Street NW, Suite 780, Washington, DC 20036, Phone: 202-296-6620, Fax: 202-296-4978, E-mail:
CSULB Principles of Shared Community

CSULB affirms the importance of democratic and transparent decision-making processes as a shared community. The University believes that all members of the University community have not only a right, but also a responsibility, to participate in the governance of this community. Therefore, the University is committed to providing an opportunity for all its members — faculty, students, staff, and administrators — to join in the decision making process either through direct participation or representative governance.

CSULB is committed to creating a community in which a diverse population of students and employees can learn and work while they share in creating an atmosphere of tolerance, civility, and respect for the rights and sensibilities of each individual. (Policy 07-09)

CSULB Statement on Civility and Acts of Violence

California State University, Long Beach, takes pride in its tradition of maintaining a civil and non-violent learning, working, and social environment. Civility and mutual respect toward all members of the University community are intrinsic to the establishment of excellence in teaching and learning. They also contribute to the maintenance of a safe and productive workplace and overall healthy campus climate.

The University espouses and practices zero tolerance for violence against any member of the University community (i.e., students, faculty, staff, administrators, and visitors). Violence and threats of violence not only disrupt the campus environment, they also negatively impact the University’s ability to foster open dialogue and a free exchange of ideas among all campus constituencies.

To fulfill this policy, the University strives: 1) to prevent violence from occurring; and 2) to enforce local, state, and federal laws, as well as University regulations, regarding such conduct. The University also has established procedures for resolving and/or adjudicating circumstances involving violence, as well as threats of violence. A threat of violence is an expression of intention that implies impending physical injury, abuse, or damage to an individual or his/her belongings. All allegations of such incidents (i.e., acts and threats) will be aggressively investigated. Allegations that are sustained may result in disciplinary action up to and including dismissal from employment, expulsion from the University, and/or civil and criminal prosecution.

Members of the campus community are encouraged to promptly report any acts of violence, threats of violence, or other behavior which by intent, act, or outcome harm themselves or others. (Approved October 1997)

Nondiscrimination Policy

Race, Ethnicity, Color, National Origin, Genetic Information, Age, Religion, and Veteran Status

The California State University does not discriminate on the basis of race, color, ethnicity, creed, nationality, disability, medical condition, genetic information, gender/sex (including gender identity and gender expression), marital status, sexual orientation, age, genetic information, religion, as well as Veteran Status in its programs and activities, including admission and access. Federal and state laws, including Title VI of the Civil Rights Act of 1964 and the California Equity in Higher Education Act, prohibit such discrimination. Larisa E. Hamada, the Director of campus Equity & Diversity, has been designated to coordinate the efforts of California State University, Long Beach, to comply with all applicable federal and state laws prohibiting discrimination on these bases. Inquiries concerning compliance may be presented to this person at: larisa.hamada@csulb.edu, 6300 State University Dr. #120, Long Beach, CA 90815, (562) 985-8256. CSU Executive Order 1097 (http://www.calstate.edu/EO/EO-1097-rev-6-23-15.pdf) is the system-wide procedure for all complaints of discrimination, harassment or retaliation made by students against the CSU, a CSU employee, other CSU students or a third party.

Disability

The California State University does not discriminate on the basis of disability in its programs and activities, including admission and access. Federal and state laws, including sections 504 and 508 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, prohibit such discrimination. Larisa E. Hamada, the Director of Equity & Diversity, has been designated to coordinate the efforts of California State University, Long Beach, to comply with all applicable federal and state laws prohibiting discrimination on the basis of disability. Inquiries concerning compliance may be presented to this person at: larisa.hamada@csulb.edu, 6300 State University Dr. #120, Long Beach, CA 90815, (562) 985-8256. CSU Executive Order 1097 (http://www.calstate.edu/EO/EO-1097-rev-6-23-15.pdf) is the systemwide procedure for all complaints of discrimination, harassment or retaliation made by students against the CSU, a CSU employee, other CSU students or a third party.

Sex/Gender/Gender Identity/Gender Expression/Sexual Orientation

The California State University does not discriminate on the basis of sex, gender, gender expression, gender identity or sexual orientation in its programs and activities, including admission and access. Federal and state laws, including Title IX of the Education Amendments of 1972,
prohibit such discrimination. Larisa E. Hamada, the Director of campus Equity and Diversity, has been designated to coordinate the efforts of California State University, Long Beach, to comply with all applicable federal and state laws prohibiting discrimination on these bases. Inquiries concerning compliance may be presented to this person at: larisa.hamada@csulb.edu, 6300 State University Dr. #120, Long Beach, CA 90815, (562) 985-8256.

The California State University is committed to providing equal opportunities to CSU students in all campus programs, including intercollegiate athletics.

Title IX of the Education Amendments of 1972 protects all people regardless of their gender or gender identity from sex discrimination, which includes sexual harassment and misconduct:

- Sexual discrimination means an adverse act of sexual discrimination (including sexual harassment, sexual violence, domestic violence, dating violence, and stalking) that is perpetrated against an individual on a basis prohibited by Title IX of the Education Amendments of 1972, 20 U.S.C. §1681 et seq., and its implementing regulations, 34 C.F.R. Part 106 (Title IX); California Education Code §66250 et seq., and/or California Government Code §11135.

- Sexual harassment, a form of sex discrimination, is unwelcome conduct of a sexual nature that includes, but is not limited to, sexual violence, sexual advances, requests for sexual favors, indecent exposure and other verbal, nonverbal or physical unwelcome conduct of a sexual nature, where such conduct is sufficiently severe, persistent or pervasive that its effect, whether or not intended, could be considered by a reasonable person in the shoes of the individual, and is in fact considered by the individual, as limiting the individual's ability to participate in or benefit from the services, activities or opportunities offered by the university. Sexual harassment includes submission to, or rejection of, where the conduct is explicitly or implicitly used as the basis for any decision affecting an individual's academic status or progress, or access to benefits and services, honors, programs, or activities available at or through the University. Sexual harassment also includes gender-based harassment, which may include acts of verbal, non-verbal or physical aggression, intimidation or hostility based on sex or sex-stereotyping, even if those acts do not involve conduct of a sexual nature.

- Sexual Misconduct: All sexual activity between members of the CSU community must be based on Affirmative Consent. Engaging in any sexual activity without first obtaining. Affirmative Consent to the specific activity is Sexual Misconduct, whether or not the conduct violates any civil or criminal law. Sexual activity includes, but is not limited to, kissing, touching intimate body parts, fondling, intercourse, penetration of any body part, and oral sex. It also includes any unwelcome physical sexual acts, such as unwelcome sexual touching, Sexual Assault, Sexual Battery, Rape, and Dating Violence. When based on Gender, Domestic Violence or Stalking also constitute Sexual Misconduct. Sexual Misconduct may include using physical force, violence, threat, or intimidation, ignoring the objections of the other person, causing the other person's intoxication or incapacitation through the use of drugs or alcohol, or taking advantage of the other person's incapacitation (including voluntary intoxication) to engage in sexual activity. Men as well as women can be victims of these forms of Sexual Misconduct. Sexual activity with a minor is never consensual when the Complainant is under 18 years old, because the minor is considered incapable of giving legal consent due to age.

- Sexual Assault is a form of sexual misconduct and is an attempt, coupled with the ability, to commit a violent injury on the person of another because of that person's gender or sex.

- Sexual Battery is a form of misconduct and is any willful and unlawful use of force or violence upon the person of another because of that person's gender or sex.

- Rape is a form of sexual misconduct and is non-consensual sexual intercourse that may also involve the use of threat of force, violence, or immediate and unlawful bodily injury or threats of future retaliation and duress. Any sexual penetration, however slight, is sufficient to constitute rape. Sexual acts including intercourse are considered non-consensual when a person is incapable of giving consent because s/he is incapacitated from alcohol and/or drugs, is under 18 years old, or if a mental disorder or developmental or physical disability renders the person incapable of giving consent. The accused's relationship to the person (such as family member, spouse, friend, acquaintance or stranger) is irrelevant. (See complete definition of consent below.)

- Acquaintance Rape is a form of sexual misconduct committed by an individual known to the victim. This includes a person the victim may have just met; i.e., at a party, introduced through a friend, or on a social networking website. (See above for definition of rape.)

- Affirmative Consent means an informed, affirmative, conscious decision by each participant to engage in mutually agreed-upon sexual activity.

- Affirmative Consent must be voluntary, and given without coercion, force, threats, or intimidation.

- Consent can be withdrawn or revoked. Consent to one form of sexual activity (or one sexual act) does not constitute consent to other forms of sexual activity (or other sexual acts). Consent to sexual activity given on one occasion does not constitute consent to sexual activity on another occasion. The fact that two people are or were in a dating or sexual relationship does not constitute consent to engage in sexual activity. There must always be mutual and affirmative consent to engage in sexual activity.

- Consent to a sexual act may be withdrawn or revoked at any time, including after penetration. The victim's request for the perpetrator to use a condom or birth control does not, in and of itself, constitute consent. Once consent is withdrawn or revoked, the sexual activity must stop immediately.

- Consent cannot be given by a person who is incapacitated. For example, a person cannot give consent if s/he is unconscious or coming in and out of consciousness. A person is incapacitated if s/he lacks the physical and/or mental ability to make informed, rational judgments. Examples of incapacitation include unconsciousness, sleep and blackouts. Whether an intoxicated person (as a
result of using alcohol or other drugs) is incapacitated depends on the extent to which the alcohol or other drugs impact the person’s decision-making capacity, awareness of consequences, and ability to make fully informed judgments. A person with a medical or mental disability may also lack the capacity to give consent.

- Being intoxicated by drugs or alcohol does not diminish a person’s responsibility to obtain consent from the other party before engaging in sexual activity. Factors to be considered include whether the person knew, or whether a reasonable person in the accused’s position should have known, that the victim did not give, or revoked, consent; was incapacitated; or was otherwise incapable of giving consent.

- Sexual intercourse with a minor is never consensual when the victim is under 18 years old, because the victim is considered incapable of giving legal consent due to age

- Domestic Violence is a form of sexual misconduct and is abuse committed against someone who is a current or former spouse, current or former cohabitant, someone with whom the abuser has a child, someone with whom the abuser has or had a dating or engagement relationship, or a person similarly situated under California domestic or family violence law. Cohabitant means two unrelated persons living together for a substantial period of time, resulting in some permanency of relationship. Factors that may determine whether persons are cohabiting include, but are not limited to (1) sexual relations between the parties while sharing the same living quarters, (2) sharing of income or expenses, (3) joint use or ownership of property, (4) whether the parties hold themselves out as husband and wife, (5) the continuity of the relationship, and (6) the length of the relationship.

- Dating Violence is a form of sexual misconduct and is abuse committed by a person who is or has been in a social or dating relationship of a romantic or intimate nature with the victim. This may include someone the victim just met; i.e., a party, introduced through a friend, or on a social networking website.

- Stalking means a repeated course of conduct directed at a specific person that places that person in reasonable fear for his/her or others’ safety, or to suffer substantial emotional distress.

- See further information in CSULB's sexual misconduct prevention and education statement, Title IX Notice of Nondiscrimination (which includes facts and myths about sexual violence) and Victim's Rights and Options Notice, at http://www.csulb.edu/divisions/aa/catalog/current/general_policies/policy_sexual_assault.html.

Whom to Contact If You Have Complaints, Questions or Concerns

Title IX requires the university to designate a Title IX Coordinator to monitor and oversee overall Title IX compliance. Your campus Title IX Coordinator is available to explain and discuss your right to file a criminal complaint (for example, in cases of sexual misconduct); the university’s complaint process, including the investigation process; how confidentiality is handled; available resources, both on and off campus; and other related matters. If you are in the midst of an emergency, please call the police immediately by dialing 9-1-1.

Campus Title IX Coordinator

- Jeane Caveness
- 1250 Bellflower Boulevard
  University Student Union, Room 217
  Long Beach, California 90840
- Phone: (562) 985-7547
- 8:00 a.m. to 5:00 p.m.

University Police

- University Police Department
- 1250 Bellflower Blvd.
  Long Beach, CA 90840
- (562) 985-4101

U.S. Department of Education, Office for Civil Rights

- (800) 421-3481 or ocr@ed.gov
- If you wish to fill out a complaint form online with the OCR, you may do so at: http://www2.ed.gov/about/offices/list/ocr/complaintintro.html.

Title IX requires the university to adopt and publish complaint procedures that provide for prompt and equitable resolution of sex discrimination complaints, including sexual harassment and misconduct, as well as provide training, education and preventive measures related to sex discrimination. CSU Executive Order 1097 (http://www.calstate.edu/EO/EO-1097.pdf) is the systemwide procedure for all complaints of discrimination, harassment or retaliation made by students against the CSU, a CSU employee, other CSU students or a third party.

Except in the case of a privilege recognized under California law (examples of which include Evidence Code §§1014 (psychotherapist-patient); 1035.8 (sexual assault counselor-victim); and 1037.5 (domestic violence counselor-victim), any member of the University community who knows of or has reason to know of sexual discrimination allegations shall promptly inform the campus Title IX Coordinator. (See confidential reporting options outlined below.)

Regardless of whether an alleged victim of sexual discrimination ultimately files a complaint, if the campus knows or has reason to know about possible sexual discrimination, harassment or misconduct, it must review the matter to determine if an investigation is warranted. The campus must then take appropriate steps to eliminate any sex discrimination/harassment, prevent its recurrence, and remedy its effects.

Safety of the Campus Community is Primary

The university's primary concern is the safety of its campus community members. The use of alcohol or drugs never makes the victim at fault for sexual discrimination, harassment or misconduct; therefore, victims should not be deterred from reporting incidents of sexual violence out of a concern that they might be disciplined for related violations of drug, alcohol or other university policies. Except in extreme circumstances, victims of sexual misconduct shall not be subject to discipline for related violations of the Student Conduct Code.
Information Regarding Campus, Criminal and Civil Consequences of Committing Acts of Sexual Misconduct

Individuals alleged to have committed sexual assault may face criminal prosecution by law enforcement and may incur penalties as a result of civil litigation. In addition, employees and students may face discipline at the university. Employees may face sanctions up to and including dismissal from employment, pursuant to established CSU policies and provisions of applicable collective bargaining unit agreements.

Students who are charged by the university with sexual discrimination, harassment or misconduct will be subject to discipline, pursuant to the California State University Student Conduct Procedures (see Executive Order 1098 at http://www.calstate.edu/eo/EO-1098.pdf or any successor executive order) and will be subject to appropriate sanctions. In addition, during any investigation, the university may implement interim measures in order to maintain a safe and non-discriminatory educational environment. Such measures may include: immediate interim suspension from the university; a required move from university-owned or affiliated housing; adjustments to course schedule; and/or prohibition from contact with parties involved in the alleged incident.

Confidentiality and Sexual Misconduct, Dating Violence, Domestic Violence and Stalking

The University encourages victims of sexual misconduct, dating violence, domestic violence, or stalking (collectively sexual Violence) to talk to someone about what happened – so they can get the support they need, and so the University can respond appropriately. Whether – and the extent to which – a University employee may agree to maintain confidentiality (and not disclose information to the Title IX Coordinator) depends on the employee’s position and responsibilities at the University. The following information is intended to make victims aware of the various reporting and confidential disclosure options available to them – so they can make informed choices about where to turn for help. The University strongly encourages victims to talk to someone identified in one or more of these groups.

Certain University employees, listed below, are required by law to maintain near or complete confidentiality; talking to them is sometimes called a “privileged communication.” University law enforcement employees may maintain the victim’s identity as confidential, if requested by the victim, but will report the facts of the incident to the Title IX Coordinator, including the identity of the perpetrator. Most other University employees are required to report all details of a Sexual Violence incident (including the identities of both the victim and alleged perpetrator) to the Title IX Coordinator so the University can take immediate action to protect the victim, and take steps to correct and eliminate the cause of Sexual Violence.

University Police, the Title IX Coordinator, University-employed physicians, professional counselors, sexual assault and domestic violence counselors and advocates, and certain other University employees are required to explain to victims their rights and options with respect to confidentiality.

Privileged and Confidential Communications

Physicians, Psychotherapists, Professional Counselors and Clergy – Physicians, psychotherapists, professional, licensed counselors, and clergy who work or volunteer on or off campus, and who provide medical or mental health treatment or counseling (including those who act in that role under their supervision) may not report any information about an incident of sexual violence to anyone else at the University, including the Title IX Coordinator, without the victim’s consent. A victim can seek assistance and support from physicians, psychotherapists, professional, licensed counselors, and clergy without triggering a University investigation that could reveal the victim’s identity or the fact of the victim’s disclosure. However, see limited exceptions below regarding when health care practitioners must report to local law enforcement agencies. Health care practitioners should explain these limited exceptions to victims, if applicable.

Sexual Assault and Domestic Violence Counselors and Advocates – Sexual assault and domestic violence counselors and advocates who work or volunteer on or off campus in sexual assault centers, victim advocacy offices, women’s centers, and health centers (including all individuals who work or volunteer in these centers and offices, as well as non-professional counselors or advocates, and those who act in that role under their supervision) may talk to a victim without revealing any information about the victim and the incident of sexual violence to anyone else at the University, including the Title IX Coordinator, without the victim’s consent. A victim can seek assistance and support from these counselors and advocates without triggering a University investigation that could reveal his/her identity or that a victim disclosed an incident to them. However, see limited exceptions below regarding when sexual assault and domestic violence counselors and advocates must report to local law enforcement agencies. Counselors and advocates should explain these limited exceptions to victims, if applicable.

The University will be unable to conduct an investigation into a particular incident or pursue disciplinary action against a perpetrator if a victim chooses to (1) speak only to a physician, professional counselor, clergy member, sexual assault counselor, domestic violence counselor or advocate; and (2) maintain complete confidentiality. Even so, these individuals will assist victims in receiving other necessary protection and support, such as victim advocacy, disability, medical/health or mental health services, or legal services, and will advise victims regarding their right to file a Title IX complaint with the University and a separate complaint with local or University police. If a victim insists on confidentiality, such professionals, counselors and advocates will likely not be able to assist the victim with: University academic support or accommodations; changes to University-based living or working schedules; or adjustments to course schedules. A victim who at first requests confidentiality may later decide to file a complaint with the University or report the incident to the police, and thus have the incident fully investigated. These counselors and advocates can provide victims with that assistance if requested by the victim. These counselors and advocates
will also explain that Title IX includes protections against retaliation, and that the University will not only take steps to prevent retaliation when it knows or reasonably should know of possible retaliation, but will also take strong responsive action if it occurs.

EXCEPTIONS: Under California law, any health practitioner employed in a health facility, clinic, physician’s office, or local or state public health department or clinic is required to make a report to local law enforcement if he or she provides medical services for a physical condition to a patient/victim who he or she knows or reasonably suspects is suffering from (1) a wound or physical injury inflicted by a firearm; or (2) any wound or other physical injury inflicted upon a victim where the injury is the result of assaultive or abusive conduct (including Sexual Violence, Domestic Violence, and Dating Violence). This exception does not apply to sexual assault and domestic violence counselors and advocates. Health care practitioners should explain this limited exception to victims, if applicable.

Additionally, under California law, all professionals described above (physicians, psychotherapists, professional counselors, clergy, and sexual assault and domestic violence counselors and advocates) are mandatory child abuse and neglect reporters, and are required to report incidents involving victims under 18 years of age to local law enforcement. These professionals will explain this limited exception to victims, if applicable.

Finally, some or all of these professionals may also have reporting obligations under California law to (1) local law enforcement in cases involving threats of immediate or imminent harm to self or others where disclosure of the information is necessary to prevent the threatened danger; or (2) to the court if compelled by court order or subpoena in a criminal proceeding related to the Sexual Violence incident. If applicable, these professionals will explain this limited exception to victims.

Reporting to University or Local Police

If a victim reports to local or University Police about sexual misconduct, the police are required to notify victims that their names will become a matter of public record unless confidentiality is requested. If a victim requests that his/her identity be kept confidential, his/her name will not become a matter of public record and the police will not report the victim’s identity to anyone else at the University, including the Title IX Coordinator. University Police will, however, report the facts of the incident itself to the Title IX Coordinator being sure not to reveal to the Title IX Coordinator victim names/identities or compromise their own criminal investigation. The University is required by the federal Clery Act to report certain types of crimes (including certain sex offenses) in statistical reports. However, while the University will report the type of incident in the annual crime statistics report known as the Annual Security Report, victim names/identities will not be revealed.

Reporting to the Title IX Coordinator and Other University Employees

Most University employees have a duty to report sexual misconduct incidents when they are on notice of it. When a victim tells the Title IX Coordinator or another University employee about a sexual misconduct incident, the victim has the right to expect the University to take immediate and appropriate steps to investigate what happened and to resolve the matter promptly and equitably. In all cases, the University strongly encourages victims to report sexual misconduct directly to the campus Title IX Coordinator.

As detailed above in the Privileged and Confidential Communications section of this policy, all University employees except physicians, licensed counselors, sexual assault counselors and advocates, must report to the Title IX Coordinator all relevant details about any sexual misconduct incidents of which they become aware. The University will need to determine what happened – and will need to know the names of the victim(s) and the perpetrator(s), any witnesses, and any other relevant facts, including the date, time and specific location of the incident.

To the extent possible, information reported to the Title IX Coordinator or other University employees will be shared only with individuals responsible for handling the University’s response to the incident. The University will protect the privacy of individuals involved in a sexual misconduct incident except as otherwise required by law or University policy. A Sexual Misconduct report may result in the gathering of extremely sensitive information about individuals in the campus community. While such information is considered confidential, University policy regarding access to public records and disclosure of personal information may require disclosure of certain information concerning a report of sexual misconduct. In such cases, efforts will be made to redact the records, as appropriate, in order to protect the victim’s identity and privacy and the privacy of other involved individuals. Except as detailed in the section on Privileged and Confidential Communications above, no University employee, including the Title IX Coordinator, should disclose the victim’s identity to the police without the victim’s consent or unless the victim has also reported the incident to the police.

If a victim requests of the Title IX Coordinator or another University employee that his/her identity remain completely confidential, the Title IX Coordinator will explain that the University cannot always honor that request and guarantee complete confidentiality. If a victim wishes to remain confidential or request that no investigation be conducted or disciplinary action taken, the University must weigh that request against the University’s obligation to provide a safe, non-discriminatory environment for all students, employees, and third parties, including the victim. Under those circumstances, the Title IX Coordinator will determine whether the victim’s request for complete confidentiality and/or no investigation can be honored under the facts and circumstances of the particular case, including whether the University has a legal obligation to report the incident, conduct an investigation or take other appropriate steps. Without information about a victim’s identity, the University’s ability to meaningfully investigate the incident and pursue disciplinary action against the perpetrator may be severely limited. See Executive Order 1095 for further details around confidential reporting, and other related matters (http://www.calstate.edu/EO/EO-1095-rev-6-23-15.pdf).
Additional Resources

- CSULB’s sexual violence prevention and education statement, which includes facts and myths about sexual violence, at http://www.csulb.edu/divisions/aa/catalog/current/general_policies/nondiscrimination_policy.html.
- U.S. Department of Education, regional office:
  - Office for Civil Rights
    - 50 Beale Street, Suite 7200
    - San Francisco, CA 94105
    - (415) 486-5555
    - TDD (877) 521-2172
- U.S. Department of Education, national office:
  - Office for Civil Rights
    - (800) 872-5327
- Know Your Rights about Title IX
  - http://www2.ed.gov/about/offices/list/ocr/docs/title-ix-rights-201104.html
- California Coalition Against Sexual Assault (http://calcasa.org/)
  - 1215 K. Street, Suite 1850
  - Sacramento, CA 95814
  - (916) 446-2520
- Domestic and Family Violence, Office of Justice Programs, United States Department of Justice
- National Institute of Justice: Intimate Partner Violence, Office of Justice Programs, United States Department of Justice
- National Domestic Violence Hotline: 1-800-799-SAFE (7233)
- Office of Violence against Women, United States Department of Justice
- Centers for Disease Control and Prevention: Intimate Partner Violence
- Defending Childhood, United States Department of Justice

Inquiries Concerning Compliance

Inquiries concerning compliance or the application of these laws to programs and activities of California State University, Long Beach, may be referred to the specific campus officer(s) identified above or to the Regional Director of the Office for Civil Rights, United States Department of Education, 50 Beale Street, Suite 7200, San Francisco, California 94105.

Equal Access and Opportunity, Non-discrimination/Non-harassment

California State University, Long Beach is a comprehensive, urban university. The University has a professional, cultural and ethical commitment to provide a climate that enables each individual to realize his/her potential for excellence and that nurtures academic growth and professional development.

Diversity is both an ideal and an imperative. California State University, Long Beach takes pride in its student body and employees, and affirms that this diversity enriches the work and learning environment of the campus. For this reason, the recognition of diversity in our University community extends beyond the limits established by federal or state laws or regulations.

In addition to fully meeting its obligations of nondiscrimination under federal and state law, CSULB is committed to creating a community in which a diverse population can learn, live, and work in an atmosphere of tolerance, civility, and respect for the rights and sensibilities of each individual, without regard to professional rank, employment status, economic status, ethnic background, political views, sexual orientation, gender identity, or other personal characteristics or beliefs.

CSULB takes seriously its tradition of maintaining civility and mutual respect toward all members of the University community. These qualities are intrinsic to the establishment of excellence in teaching and learning. They also contribute to the maintenance of a productive workplace and an overall positive campus climate. Civility and mutual respect thrive only when equal opportunity and access exist, and when retaliation for exercising rights, privileges and obligations is not feared. (Policy 03-09)

The Director of Equity and Diversity, is the designated campus coordinator for equal employment opportunity, affirmative action, and civil rights.

Policy Promoting Equal Employment and Educational Opportunity

California State University, Long Beach affirms the equal worth of every individual and of distinctive groups of people, and fosters fair and equal treatment and access for all members of the university community. Therefore, the University is committed to the principles of equal opportunity in education and employment, to policies and practices that ensure equal opportunity and consideration, and to the protection of civil rights.

It is the policy of California State University, Long Beach to provide programs, services, and benefits, including employment, without regard to age, disability, gender (including gender identity, gender expression), genetic information, nationality, race or ethnicity, religion, sexual orientation, as well as Veteran Status (Executive Order 1097)

Reasonable accommodation to disability is considered a means of establishing equal opportunity.

Policy Prohibiting Discrimination and Harassment

Pursuant to Executive Order 1096 and 1097, California State University, Long Beach affirms that students, employees, volunteers, members of the public, and recipients of services, and/or benefits provided by CSULB have the right to a University free from discrimination and harassment, including hostile environment, on the basis age, disability, gender, genetic information, nationality, race or ethnicity, religion, sexual orientation, as well as Veteran Status.

This policy is established in compliance with the California Equity in Higher Education Act (Education Code §66250 et seq.), Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, and the Age Discrimination Act of 1975, among other applicable state and federal laws.
Confidentiality

The University is committed to maintaining an environment in which individuals can participate in safe working and learning environments. Information provided to University employees shall be shared with other University employees and law enforcement exclusively on a "need to know" basis. University employees shall endeavor to honor any Complainant's request for confidentiality; however, the University shall also weigh requests for confidentiality against its duty to provide a safe and nondiscriminatory environment for all members of the campus community.

Consensual, Amorous, and/or Sexual Relationships Between Employees and Students

Consensual relationship means a sexual or romantic relationship between two persons who voluntarily enter into such a relationship. While sexual and/or romantic relationships between members of the University community may begin as consensual, they may evolve into situations that lead to Discrimination, Harassment, Retaliation, Sexual Misconduct, Dating or Domestic Violence, or Stalking subject to this policy.

A CSU Employee shall not enter into a consensual relationship with a Student or Employee over whom s/he exercises direct or otherwise significant academic, administrative, supervisory, evaluative, counseling, or extracurricular authority. In the event such a relationship already exists, each Campus shall develop a procedure to reassign such authority to avoid violations of this policy.

This prohibition does not limit the right of an Employee to make a recommendation on personnel matters concerning a family or household member where the right to make recommendations on such personnel matters is explicitly provided for in the applicable collective bargaining agreement or MPP/confidential personnel plan.

Complaint Resolution Procedures

Resolution of discrimination, harassment and retaliation complaints is available to all members of the University community. The procedures vary, but are all intended to resolve complaints in a timely and responsive manner at the earliest possible stage.

Complaint Procedure for Employees and Third Parties:

For employees represented by a collective bargaining agreement, the collective bargaining agreement outlines procedures, process and timelines. Information is available from your campus union representative, or online at http://www.calstate.edu/LaborRel/Contracts.HTML/contracts.shtml

For employees not eligible to file a complaint or grievance under a collective bargaining agreement or whose collective bargaining agreement incorporates CSU system-wide complaint procedure, the complaint procedure is outlined in CSU Executive Order 1096. It is available online at: http://www.calstate.edu/EO/EO-1096-rev-6-23-15.pdf.

Complaint Procedure for Campus Community, Guests, Visitors, Affiliates, and Associates:

For members of the campus community, guests, visitors, affiliates and associates, the Campus Complaint Resolution Procedure will apply. Forms are available in the Office of Equity & Diversity, FND 120. Please note: these complaint procedures are applicable if the alleged respondent is an employee, vendor, contractor, or visitor.

Complaint Procedure for Student Complaint against a Non-Student

The university has developed an early resolution and formal processes for the resolution of discrimination and harassment complaints. Individuals may utilize either of these avenues to resolve a complaint. Both of these processes are designed to resolve complaints in a timely and responsive manner at the earliest possible stage.

A discrimination complaint resolution officer has been appointed by the university president. This individual serves as a resource for any member of the campus community.

The Early Resolution process may be initiated by contacting the discrimination complaint officer (Director of Equity & Diversity). If the proposed remedy is unsatisfactory to the complainant, or if the complaint is not resolved in the informal process, the complaint can proceed to the formal level. All informal complaints reported to other university employees must be referred to the Director of Equity & Diversity.

A formal complaint may be initiated by submitting a completed, signed complaint form to the Office of Equity & Diversity, FND 120. The complainant will be required to provide an account of the alleged incident, to describe what effect it has caused, and to propose what remedy is sought. Formal complaint procedures include notification to the individual charged with prohibited behavior. In the formal process, an investigation will be conducted by the discrimination complaint officer (Director of Equity and Diversity) and his/her findings will be reported to the appropriate division executive. The division executive will take appropriate action.
The full text of these procedures, including timelines, is available from the Office of Equity & Diversity, FND 120, (562) 985-8256. See also http://www.csulb.edu/depts/oed/policies/complaints.html.

Complaint Procedure for a Student Complaint against another Student(s)

Students may seek assistance with resolving a complaint by initiating an informal discussion with Larissa Hamada, Director of Equity & Diversity. If the complaint is not resolved in the informal process, the complaint can proceed to a formal level. See also Executive Order 1097: http://www.calstate.edu/EO/EO-1097.html

A formal complaint may be initiated by a student submitting a written, dated and signed statement to the Director of Equity & Diversity, FND 120. The complaint will be handled in accordance with Executive Order 1097: http://www.calstate.edu/EO/EO-1097-rev-6-23-15.pdf

Note: Students may seek assistance with resolving a complaint against an employee of an auxiliary organization (Associated Students, CSULB Foundation and Forty Niner Shops) by contacting the appropriate office listed below:

- Associated Students human resources manager, USU-232, (562) 985-8875, www.csulb.edu/asi
- CSULB Foundation associate director of Human Resources & Administrative Services, Foundation Building, (562) 985-7950, www.foundation.csulb.edu/departments/hr

Campus Complaint Timeline

Pursuant to Executive Order 1097 a student/applicant for admission (applicant) on any one of the 23 campuses of the California State University may file a complaint related to discrimination, harassment, or retaliation.

Immediately following a discriminatory, harassing, or retaliatory act/action, or as soon as possible thereafter, students/applicants who believe they are or may have been victims of discrimination, harassment or retaliation, may initiate the Informal Resolution process to receive information and advice about the procedures that exist for resolving such matters.

For the purpose of this executive order, day is defined as work day which means Monday through Friday, excluding all official holidays or campus closures at the campus where the complaint originated.

Within twenty (20) work days after the end of the academic term (semester/quarter), in which the most recent alleged discriminatory/harassing/retaliatory act occurred, a student/applicant may file a formal discrimination/harassment/retaliation complaint.

Within ten (10) work days of receipt of a formal complaint, an intake interview shall be conducted with the student/applicant.

Within sixty (60) work days of the initial intake interview of a formal complaint, the investigator shall complete his/her investigation, write and submit the investigative report to the campus designated Management Personnel Plan (MPP) employee responsible for the implementation of, and compliance with, Executive Order 1097. The timeline for the investigation shall not be extended pursuant to Article VI, Section G of Executive Order 1097 for a period longer than an additional sixty (60) days.

Within ten (10) work days of the receipt of the investigative report, the campus designated Management Personnel Plan employee shall review the investigative report and notify the student/applicant in writing of the outcome of the campus investigation. If the same Management Personnel Plan employee is the person who investigated the complaint, he/she shall provide the student/applicant with notification of the outcome of the campus investigation within ten (10) work days of completing the report. A separate notification shall be provided to the accused(s), indicating whether or not the allegations at Formal Level I were substantiated.

Within ten (10) work days of receipt of the Formal Level I decision, the student/applicant may file a written appeal with the Office of the Chancellor.

Within sixty (60) work days of receipt of a written appeal to the Office of the Chancellor (CO), the CO designee shall respond to the complainant. A separate notification shall be provided to the accused(s), indicating whether or not the allegations at Formal Level II were substantiated.

The CSU review of a written complaint filed by a student/applicant under this executive order shall end following a final decision by the CO designee.

The timelines noted above may be extended for the following reasons:

- If the student/applicant, the accused, a witness, the campus investigator/CO designee, or other necessary person involved in the complaint process is unavailable because of any reason deemed to be legitimate by the campus investigator/CO designee, the timelines in this executive order will be automatically adjusted according to the period of absence. The student/applicant will receive written notification of the period of extension.

- Timelines set forth herein may also be extended by mutual agreement. If the student/applicant does not agree or does not respond to the CSU’s request for a timeline extension, the CSU will respond to the complaint/appeal within the timelines set forth in this executive order. In that event, the response will be interim in nature as it will be based upon the information available at the time. The interim response will note that the investigation/review is continuing until the CSU is satisfied its duty to respond appropriately to the allegation(s) has been discharged. The interim response should include a summary of the allegations, a description of the investigative/review process, and should also provide the student/applicant with an anticipated date of completion of the investigation/review, whereupon the final response will be issued.

Pursuant to Executive Order 1097, the timeline shall not be extended for a period longer than an additional 30 work days from the original due date.

Student Complaint Procedure

The California State University takes very seriously complaints and concerns regarding the institution. If you have a complaint regarding the CSU, you may present your complaint as follows:

1. If your complaint concerns CSU’s compliance with academic program quality and accrediting standards, you may present your complaint to the Western Association of
Schools and Colleges (WASC) at http://www.wascsenior.org/comments. WASC is the agency that accredits the CSU's academic program.

(2) If your complaint concerns an alleged violation by CSU of a state law, including laws prohibiting fraud and false advertising, you may present your claim to the campus president or to the Office of Equity & Diversity, FND 120, (562) 985-8256. They will provide guidance on the appropriate campus process for addressing your particular issue.

If you believe that your complaint warrants further attention after you have exhausted all the steps outlined by the president or designee, or by WASC, you may file an appeal with the Associate Vice Chancellor, Academic Affairs at the CSU Chancellor's Office. This procedure should not be construed to limit any right that you may have to take civil or criminal legal action to resolve your complaint.

Don’t Put Your Health at Risk

To become dependent upon chemicals such as illicit drugs and/or alcohol is to put your health at risk. Chemical dependency is a condition in which the use of mood altering substances such as drugs or alcohol is associated with problems in any area of life on a more or less continuing basis.

One does not, however, have to be addicted or chemically dependent to suffer health risks from the use of illicit drugs or alcohol.

Alcohol and illicit drugs (in all the many forms) may, and often do, impair physical coordination and judgment, diminish control over impulsive behavior, and cause many short- and long-term health consequences.

Alcohol-related illnesses now represent the third leading cause of death in the United States exceeded only by cancer and heart disease, and medical research has established very strong evidence that alcohol abuse contributes significantly to cancer and heart disease. There is clear evidence of serious negative effects on babies due to use of illicit drugs and alcohol by the mother during pregnancy.

If You Have an Alcohol/Drug-Related Problem, We Want to Help

The California State University, Long Beach Student Health Services offers substance dependence counseling and resources for students, faculty, and staff. This includes an Athletic Assistance Program for student athletes (offered as a separate program due to NCAA testing and eligibility requirements and conference affiliation rules for competition).

Under the guidelines of the Alcohol Tobacco and Other Drug (ATOD) program, Linda Peña, an experienced specially trained counselor/health educator under the supervision of the Medical Director, serve as the coordinator and counselor of this program and is available for consultation. All contacts with the Student Health Services personnel are strictly confidential.

Information concerning the prevention of drug and alcohol abuse and/ or concerns about symptoms of substance disorders is available by calling/ emailing Linda Peña, (562) 985-1732, linda.pena@csulb.edu. Additionally, to support students diagnosed with substance disorders, there is ATOD's Beach Recovery. This is a Collegiate Recovery Community effort that aims to educate students about addiction and help remove the stigma associated with alcoholism and addiction, while supporting students on campus who are seeking recovery or are in recovery.

Campus Standards of Conduct

Both productivity at work and the learning process are significantly impaired by alcohol abuse and the use of illicit drugs. Substance abuse among college students inhibits their educational development and is of serious nationwide concern.

California State University, Long Beach is dedicated to the elimination of the use of illicit drugs and alcohol abuse. The University is making every effort to create an environment that promotes and reinforces good health. This includes responsible living, respect for community and campus standards and regulations, individual responsibility within the community, and the intellectual, social, emotional, ethical, and physical well-being of all members of the campus community.

On campus property, the solicitation, sale, use or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics, as those terms are used in California statutes, are prohibited.

Consumption of alcohol is prohibited in individual offices, classrooms, laboratories, or generally accessible public or open areas, such as the quad and athletic fields.

Information regarding campus policies on the consumption of alcohol may be obtained by calling the Office of Student Life and Development at 985-8668.

Pursuant to Title 5 of the California Code of Regulations, violations by students of the above regulations, when campus related, may, after due process, result in the student being placed on probation, being suspended, or being expelled. Additionally, violations of laws committed on campus property, or at a campus event, will also be subject to referral and prosecution through off-campus authorities. Penalties by enforcement agencies for violations of the law may include imprisonment, fines, or both; these are in addition to administrative sanctions imposed by the University.

More detailed descriptions of student regulations concerning drugs, or alcohol, may be found elsewhere in the CSULB Catalog, or in the Residence Hall Calendar and Handbook, or the Regulations for Campus Activities, Organizations and the University Community.

Pursuant to Education Code Section 89535, employees may be disciplined, up to and including termination, for the following causes:

1. Conviction of criminal offenses involving the illegal use of drugs.
2. Appearing for work impaired by the use of alcohol and/or controlled substances.
3. Addiction to the use of controlled substances.

More detailed descriptions of employee regulations concerning drugs, or alcohol, may be found in the Administrative Policies and Procedures Handbook and the Faculty and Staff Handbooks.
Security on Campus

Campus Security Act

California State University, Long Beach University Police, obtains its powers to arrest from the California Penal Code and the California Education Code.

Reporting Emergencies on Campus

The on-campus emergency phone number is 9-1-1. The non-emergency phone number is (562) 985-4101. Any problems concerning behavior of members of the campus community, thefts, vandalism, fire, and all related matters should immediately be brought to the attention of the University Police.

Procedures for Reporting Crimes on Campus

Whenever students or employees become victims of a crime while on the campus of CSULB, or whenever they have witnessed a crime or feel that there is a possibility that a crime is about to occur, they should notify University Police as soon as possible by calling 911 from their cell phone or nearest telephone. There are also numerous emergency phones located throughout the campus and parking lots, which are direct lines to the University Police dispatcher. Contact University Police by simply locating the nearest emergency phone or by using the emergency phone that is located in all elevators. Individuals may also contact the mobile police units that patrol the campus on a 24-hour schedule. Parking enforcement officers also patrol the parking lots and have direct radio contact with the police dispatcher and the mobile police units. The University Police is located at the far east end of campus, between parking lot “11” and parking lot “9” on Palo Verde Avenue. The Department is open 24 hours a day to respond to any call for service or to any emergency.

Opening Classrooms

Custodians are responsible for unlocking all outside doors and classrooms which do not contain equipment (audiovisual, computers, etc.) at 7:00 am. University Police personnel are responsible for opening buildings on weekends and holidays. Persons requesting a door opened must have proper authorization. Questions of interpretation and special access matters should be directed to University Police.

Security of Buildings

Personnel who require regular access to specific buildings and rooms may request keys. Requests must be approved by the appropriate department and, for some facilities, by the appropriate administrator. Individuals granted special access to rooms and buildings must assume personal responsibility for facilities and equipment during the time they are using these facilities and equipment and must ensure that the door is locked at the conclusion of work.

University Police will ensure that all buildings are secured every night. An individual desiring to remain in a building after normal closing hours is required to notify University Police.

A faculty or staff member who does not have a key but who requires access to a particular building or room after normal instructional or working hours must present proper identification to University Police before being given access to the building. Graduate Assistants and other students who require entrance to a building during other than normal hours must have proper identification and prior approval in writing from the appropriate administrator. They must be in possession of a copy of written permission and approval from their appropriate administrator.

Anyone who has difficulty in gaining authorized access to an area or who needs assistance in securing a building or room should contact University Police.

Policy Concerning Law Enforcement on Campus

California State University Police Officers are sworn Law Enforcement Officers under California Penal Code, Section 830.2, and in compliance with State Statute meet the peace officer standards and training requirements mandatory for all California law enforcement officers. In addition, California State University Police Officers undergo training specially designed to meet the needs and problems of a contemporary university community.

The primary responsibility of the University Police is the preservation of the public peace and the protection of life and property against all unlawful acts. The department will take all possible measures to prevent crime and accidents, investigate thoroughly all suspicious and criminal activity, and apprehend offenders quickly in all cases where crimes are committed.

Type and Frequency of Programs to Inform Campus Personnel About Security Procedures and Practices

University Police actively invites fraternities and sororities, as well as sports groups and clubs on campus, to participate in the “Acquaintance/Rape” lectures. These classes are scheduled flexibly at no charge to meet the group’s needs. The University Police also conducts new employee, new student, and special groups orientations. Officers routinely address residence hall students on a variety of topics, such as drug and alcohol abuse, and the problem of sexual assaults.

Programs Designed to Prevent Crime

University Police offers an evening escort service for all students and employees. They are picked up and escorted to their vehicles or to the residence halls.

University Police provides employees with information about California law and how to avoid being a victim. Advice is also provided about securing valuables and protecting vehicles.

Statistics on Major Crimes

University Police reports statistics on major crimes monthly to the Office of the President, to the Chancellor’s Office, and to the Department of Justice.

Information concerning CSULB policies, procedures, and facilities for students and others to report criminal actions or other emergencies occurring on campus may be obtained from University Police, (562) 985-4101.

Information concerning the CSULB annual crime statistics reports may be obtained online at the University Police website http://daf.csulb.edu/offices/ppfm/police/ or by contacting University Police directly at (562) 985-4101.
**Firearms on Campus**

Any person who brings or possesses a firearm on the grounds of the University, without the prior written permission of the Chief of University Police, or as otherwise provided by law, is in violation of State law (California Penal Code, Section 626.9), and University Regulations, and is punishable by imprisonment. Any person who brings or possesses a device that expels a metallic projectile, such as a B-B or pellet, through the force of air pressure, CO2 pressure, or spring action, or a spot-marker gun, on the grounds of the University, without the permission of the University Police, is in violation of University Regulations; such action may result in University or legal sanctions.

**Off-Campus Monitoring of Criminal Activity at Campus Events**

The University Police Department has a close working relationship with the City of Long Beach Police Department and other local law enforcement agencies. Reports and information are routinely exchanged and reviewed as needed.

**Policy for the Use of Alcohol and Drugs on Campus**

Alcoholic beverages generally may not be consumed on campus except at sponsored events and with specific approval of the Director of Student Life and Development.

Alcoholic beverages may only be consumed on University premises that have been licensed by the Department of Alcoholic Beverage Control or on other University premises at “approved group sponsored events.” Sponsors of such events must obtain prior written approval from the office of Student Life and Development. Approval normally will be limited to events in such areas as the University Student Union, the Soroptimist House, or the Chart Room.

The solicitation, sale, use or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics, as those terms are used in California statutes, is prohibited on campus property. Excepted are drugs which are lawfully prescribed or lawfully permitted for the purpose of bona fide research, instruction or analysis.

CSULB is dedicated to the elimination of the use of illicit drugs and alcohol abuse. The CSULB Student Health Services offers substance-abuse consultation programs for students, faculty and staff who may need assistance in overcoming the personal problems associated with alcohol or drug abuse. These programs include a Student Assistance Program for students, an Employee Assistance Program for faculty and staff, and an Athletic Assistance Program for student athletes (offered as a separate program due to NCAA requirements). All contacts with the Health Center and its personnel are confidential.

More detailed descriptions of campus regulations concerning alcohol and drugs may be found in the current editions of the CSULB Catalog, the CSULB Schedule of Classes, Regulations for Campus Activities, Organizations, and the University Community, and the Faculty, Staff and Student Handbooks.

**Policy on Sexual Assault**

Students, faculty, and staff who are victims of sexual assault committed at or upon the grounds of the University, or upon off-campus grounds or facilities maintained by affiliated student organizations, are required by law to be advised of specified information, to include treatment, related campus procedures, referral options, and other assistance which may be available [California Education Code, Section 67385]. This policy is designed to provide the written procedures and information required.

Rape, including acquaintance rape, or any other form of sexual assault, will not be tolerated by California State University, Long Beach. Where there is evidence that campus-related sexual assault has been committed, severe campus disciplinary action will be initiated. Such campus disciplinary action may include, after due process, the possibility of dismissal, suspension or disenrollment. Additionally, where the victim initiates criminal action, the perpetrator is subject to criminal penalties which may include fines and imprisonment.

**Sexual Assault**

The term “sexual assault” includes, but is not limited to, rape, acquaintance rape, sexual battery, forced sodomy, forced oral copulation, rape by a foreign object, or threat of sexual assault [California Education Code, Section 67385(d)].

Rape is a criminal offense. “Rape” is generally defined as an act of sexual intercourse accomplished with a person not the spouse of the perpetrator, under specified circumstances. For example, it may involve the use or threat of force, violence, retaliation, or fear of or actual immediate and unlawful bodily injury. Rape also occurs when the victim is incapable of giving legal consent, for example, when: a) the victim has a mental disorder, or is developmentally or physically disabled; or b) the victim is prevented from resisting the assault due to intoxicating substances (e.g. alcohol or drugs); or c) the victim is unconscious of the nature of the act, and such condition was known or reasonably should have been known to the accused [Reference: California Penal Code, Section 261, and the following sections]. Spousal rape is also prohibited under the “Spousal Rape” provisions of the California Penal Code, Section 262.

“Acquaintance Rape” is forced sexual intercourse undertaken by someone the victim knows, against the will of the victim or as a result of threats, force or fear.

“Sexual Battery” is defined as the touching of an intimate part of another person, if the person is unlawfully restrained and if the touching is against the will of the person touched, for the purpose of sexual arousal, sexual gratification, or sexual abuse [Reference: California Penal Code, Section 243.4 (e) (i)].

“Assault with intent to commit a sexual battery” is defined as an unlawful attempt, coupled with the present ability, to commit a violent injury (e.g., rape) or sexual battery on the person of another. (Reference: California Penal Code, Section 220; 240; 261; and following sections).

“Consent” is defined as positive cooperation in an act or attitude pursuant to an exercise of free will. The person must act freely and voluntarily and have knowledge of the nature of the act or transaction involved. A current or previous dating or marital relationship is not sufficient to constitute consent where, under specified conditions, consent is at issue [Reference: California Penal Code,
“Unlawful Sexual Intercourse with a minor” is an act of sexual intercourse accomplished with a person not the spouse of the perpetrator, where the person is under the age of 18 years (California Penal Code, Section 261.5).

Any person who willfully and lewdly commits any lewd or lascivious act upon or with the body or any part of a child under the age of 14 years with the intent of arousing, appealing to, or gratifying the sexual desires or passions of either the child or defendant is guilty of a felony. Any person who commits any act in the previous sentence with a person 14 or 15 years old, and the defendant is at least 10 years older than the child is guilty of a public offense (California Penal Code, Section 288). Any person who intentionally gives, transports, provides, persuades or makes available to another a child under age 16 for lewd or lascivious acts is guilty of a felony, punishable by fine and imprisonment [California Penal Code, Section 266(j)]. Every person who annoys or molests any child under the age of 18 is punishable by fine and imprisonment, or both fine and imprisonment (California Penal Code, Section 647.6).

University Jurisdiction

California State University, Long Beach views seriously its obligation to uphold the laws of the larger community of which it is a part. An association with the University does not exempt a person from local, state, or federal laws, but rather imposes the additional obligation to abide by all of the rules and regulations of the California State University.

A student charged with a sexual abuse or sexual assault or sexual battery violation which is campus related may be subject to prosecution under appropriate California criminal statutes, as well as being subject to student discipline under the Student Conduct Procedures (Reference: Chancellor's Executive Order 1074, “; and Title V, California Code of Regulations, Section 41301 41302, "Student Discipline").

Employees charged with a sexual abuse violation which is campus-related may be subject to prosecution under appropriate California criminal statutes, as well as being subject to discipline under the California Education Code, Sections 89535 89540. Such campus disciplinary action for employees may include demotion, suspension, or dismissal.

Campus Reporting Procedures

Persons involved in, or possessing knowledge of, a campus-related abuse violation are strongly encouraged to notify University Police immediately. University Police may be contacted by:

• using any of the blue lighted telephones
• by depressing the red button on all public pay telephones
• dialing (562) 985-4101 or 9-1-1

An officer will be dispatched and will assist the victim to a medical facility for medical care and collection of evidence. An officer will assist the victim with a police report should the victim desire to make one. An officer will remain available to the victim until a friend or relative can be located.

The University Police Department cannot hold reports of crime in confidence. Confidential reports for purposes of inclusion in the annual disclosure of crime statistics can generally be made to other CSU campus security authorities identified as the following:

• Associate Vice President/Dean of Students University Student Union 219, (562) 985-8670
• Associate Vice President, Faculty Affairs (562) 985-4128, Brotman Hall 303
• Assistant Dean of Students (562) 985-7547, University Student Union, Room 217
• Director, Athletic (562) 985-4655, Pyramid Annex
• Director, Counseling and Psychological Services (562) 985-4001, Brotman Hall 226
• Director, Equity & Diversity (562) 985-8256, University Student Union 301, Title IX Coordinator
• Director, Housing and Residential Life (562) 985-4187, Housing Office
• Director, Office of Student Conduct & Ethical Development (562) 985-5270, USU 224
• Deputy Title IX Coordinator
• Director, Staff Human Resources (562) 985-4031, Brotman Hall 335
• Director, Student Health Services (562) 985-4771, Student Health Center

Alternatively, one may anonymously report a crime to the above listed campus authorities. Each respective unit or person contacted will be responsible for reports, as may require by law, to be filed for their respective unit, e.g. violations under the Child Abuse Reporting Law, Jeanne Clery Act or Meagan’s law.

Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

Access crime statistics for CSULB: These are mandated statistics known as the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Hard copies of this brochure may be obtained from CSULB Police Department’s main station located on the southern end of parking lot 11, 1250 Bellflower Blvd, or from the police substation located in the University Student Union room, 237. This report is also available on the University Police web site at http://daf.csulb.edu/offices/ppfm/police, and can be downloaded in the PDF format. This report is prepared in cooperation with the Police agencies surrounding our main campus and our alternate sites, Housing and Residential Life, the Judicial Affairs Office and the Division of Student Services. Each entity provides updated information on their educational efforts and programs to comply with the Act.

The following are among the options available to a victim and more than one option may be exercised:

1. Criminal Prosecution: University Police - (562) 985-4101
   Emergency: 9-1-1
2. Civil Action: Consult an attorney.
3. University Disciplinary Process, where accused is:
   A. Faculty: Academic Employee Relations (562) 985-5208; BH-300
   B. Staff: Staff Human Resources (562) 985-4128; BH-303
4. Informal Mediation: Office of the University Ombuds (562) 985-5983; FND-140.
5. Alternative Campus Housing Assignments: Director, Housing (562) 985-4187; Housing Office

6. Academic Assistance:
   A. Counseling and Psychological Services (562) 985-4001; BH 226
   B. Women’s and Gender Equity Center (562) 985-8576; LA1-102
   C. Academic Advising Center (562) 985-4837; Horn Center, Room 103

In the event there are requests for information from the press, concerned students, parents, and others, prudence will be exercised, and when required by law, confidentiality will be maintained. When appropriate, only the Department Director (for matters strictly within the Director’s purview), or the University Director of Public Affairs (for inquiries by the media), will respond.

Victims are advised that there could likely be a need to identify both the victim and the assailant in the course of investigation and hearings under University student disciplinary proceedings, as well as under employee disciplinary proceedings, or criminal prosecutions. In the case of student disciplinary actions against an assailant, the victim is required to be promptly notified by the Director. Office of Student Conduct and Ethical Development of the status of the proceedings, and the general terms of the disposition.

Persons are reminded of the importance of preserving such evidence as may be necessary to the proof of criminal sexual assault. With respect to sexual assault involving student discipline, both the accused and the accuser are entitled to have an advisor present during a campus disciplinary proceeding, and to be informed of the outcome of the campus student disciplinary proceeding. Student victims of sexual assault may request changes in academic and living arrangements precipitated by the offense where such changes are reasonably available.

Support Services

Sexual assault violations often result in physical harm, psychological harm, or both. Even if the victim decides not to report the incident to authorities, it is urged that the victim seek medical and counseling assistance for potential emotional trauma and the possibility of sexually transmitted diseases.

- The University Counseling and Psychological Services provides crisis counseling as well as ongoing assistance to students who have experienced sexual assault; BH 226, (562) 985-4001, www.csulb.edu/caps.
- The University Student Health Center offers routine medical examinations, including pregnancy tests and tests for sexually transmitted diseases; (562) 985-4771.
- The University Women’s and Gender Equity Center provides support, resource materials, and referrals to community services women and men, LA1-102, (562) 985-8576, www.csulb.edu/wrc.
- S.A.R.T (Sexual Assault Response Team) The University Police is an active participant of the Long Beach S.A.R.T. process. This process offers individual forensic exams to victims of sexual assault and child molestation. Coordination is with University Police, Long Beach Police Department, District Attorney’s office, a forensic nurse and a rape crisis counselor. The police dispatcher activates the S.A.R.T process after the officers have connected with the victim. The University Police may be reached by calling (562) 985-4101 or 9-1-1. S.A.R.T. is located at Long Beach Community Hospital. A victim may be driven to Long Beach Community Hospital, 1720 Termino Ave., Long Beach, for the S.A.R.T. services. The emergency room staff will contact S.A.R.T. directly. Additionally, referrals are available through the following non-university agencies:
  - YWCA GLA Sexual Assault Crisis Program (877) 943-5778
  - East LA Rape and Battery Hotline (800) 585-6231
  - Rape Crisis Hotlines – Orange County (949) 831-9110 and (714) 957-2737
  - The Rape Treatment Center – Santa Monica Hospital, (310) 319-4000
  - Safe At Home Confidential Address Program (877)322-5227, www.ss.ca.gov/safeathome/

Also, Counseling and Psychological Services office maintain lists of referrals within the community which deal with the issues of rape and sexual assault crisis, including legal, medical, and therapeutic support services. The phone number for the Counseling and Psychological Services office is (562) 985-4001.

Victims of Violent Crime Statute

A person who has sustained physical injury as a direct result of a crime of violence, or is legally dependent for support upon a person who has sustained physical injury or death as a direct result of a crime of violence (or, in the event of a death caused by a crime of violence, has legally assumed or voluntarily paid the medical or burial expenses incurred as a direct result thereof) may qualify for indemnification by the State of California for the out-of-pocket wages, medical and/or burial expenses incurred as a result of the crime (California Government Code, Section 13900, et seq.). Claims must be filed with the State Board of Control for the State of California. The Statute provides that, absent certain extenuating circumstances, a claimant has one year from the date of the crime to file his or her claim with the State Board of Control. For further information regarding this program, contact:

- University Police - CSULB, 1250 Bellflower Blvd., Long Beach, CA 90840, Telephone: (562) 985-4101
- Los Angeles District Attorney - Telephone: (800) 380-3811
  Website: da.co.la.ca.us/wwap/roster.htm
- State of California - Victim Compensation Program, P.O. Box 3036, Sacramento, CA 95812-3036, Telephone: (800) 777-9229, Hearing impaired, please call the California Relay Service at (800) 735-2929, Email: info@vcgcb.ca.gov

Student Educational Records and Privacy Rights (FERPA)

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232 g) and regulations adopted thereunder (34 C.F.R. 99) set out requirements designed to protect students’ privacy in their records maintained by the campus. The statute and regulations govern access to certain student records maintained by the campus and the release of such records. The law provides that the campus must give students access to most records directly related to the
student, and must also provide opportunity for a hearing to challenge the records if the student claims they are inaccurate, misleading, or otherwise inappropriate. The right to a hearing under this law does not include any right to challenge the appropriateness of a grade determined by the instructor. The law generally requires the institution to receive a student’s written consent before releasing personally identifiable data about the student. The institution has adopted a set of policies and procedures governing implementation of the statutes and the regulations. Copies of these policies and procedures may be obtained on the Enrollment Services website. Copies can also be obtained at the Office of Enrollment Services or the Office of Student Conduct and Ethical Development. Among the types of information included in the campus statement of policies and procedures are: (1) the types of student records maintained and the information they contain; (2) the official responsible for maintaining each type of record; (3) the location of access lists indicating persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) student access rights to their records; (6) the procedures for challenging the content of student records; (7) the cost to be charged for reproducing copies of records; and (8) the right of the student to file a complaint with the Department of Education. The Department of Education has established an office and review board to investigate complaints and adjudicate violations. The designated office is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., S.W., Washington, D.C. 20202-5920.

The campus is authorized under the Act to release “directory information” concerning students. CSULB designates the following items authorized by FERPA as Directory Information: student’s name, address (see below for conditions), telephone number (see below for conditions), email address (see below for conditions), major field of study, dates of attendance, grade level, enrollment status, and degrees, honors, and awards received. Addresses, telephone numbers, and email addresses for currently enrolled students will be released to CSULB personnel and units solely for the purpose of conducting legitimate University business. They may not be shared with individuals or organizations outside the University except in accordance with the following provisions. Addresses, telephone numbers, and email addresses may be released for non-commercial use by individuals or organizations outside the University provided the requests for such information have been reviewed and approved by the appropriate University personnel. Requests from the academic offices of accredited educational institutions shall be reviewed by the Provost and Senior Vice President for Academic Affairs or designee. All other requests shall be reviewed by the Vice President for Student Services or designee. Otherwise, the University may disclose any of the items designated as “directory information” above without prior written consent, unless the student provides a request that certain information not be released (non-disclosure). Requests for non-disclosure may be made directly by the student utilizing their self-service account in the student system via the Internet. If the student does not have access to the Internet, their request for non-disclosure must be requested on the “Authorization to Withhold Student Information” form, available in the Office of Enrollment Services. Specifying items as directory information allows the University to disclose this information without prior written consent. It does not require that the University release the information except under court direction. In addition to the above, the Director of Athletics may provide information concerning participation of students in athletic events, including the height and weight of athletes. The University will also respond to requests for information regarding the employment status of students serving as Teaching Associates (TAs), Graduate Assistants (GAs), or Instructional Student Assistants (ISAs) and the departments that employ them. The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons have responsibilities in campus’ academic, administrative, or service functions and have reason for accessing student records associated with their campus or other related academic responsibilities. Student records may also be disclosed to other persons or organizations under certain conditions (e.g., as part of accreditation or program evaluation; in response to a court order or subpoena; in connection with financial aid; for specified health or safety matters; or to other institutions in which the student has enrolled or seeks to enroll).

**Career Placement Information**

The Career Development Center office may furnish, upon request, information about the employment of students who graduate from programs or courses of study preparing students for a particular career field. Any such data provided must be in a form that does not allow for the identification of any individual student. This information includes data concerning the average starting salary and the percentage of previously enrolled students who obtained employment. The information may include data collected from either graduates of the campus or graduates of all campuses in the California State University system.

**Use of Social Security Number**

Pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code (26 U.S.C. 6109), the University uses the social security number to identify students and their records including identification for purposes of financial aid eligibility and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the University to file information returns that include the student's social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. That information is used by the IRS to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes. Taxpayers who claim Hope Scholarship or Lifetime Learning tax credit will be required to provide the campus with their name, address, and Social Security Number.
Student Grievance Policy

The CSULB grievance policy and procedure are designed to provide the campus community with a protocol to accommodate circumstances for which no other policy or procedure exists. This policy does not cover grade appeals, prohibited discrimination, or any other issues that are covered by existing policies. Students are advised to consult appropriate additional campus resources (e.g., the Undergraduate and Graduate Catalog, "The Regs"). The Office of the Dean of Students has staff to help students understand the details of the grievance procedure and may be called upon for assistance.

Student Grievance Procedure

The student grievance procedure at CSULB is intended to provide a formal, standardized means for students to seek redress concerning the actions of faculty members, administrators, or staff members of the university-actions that are unauthorized or unjustified and that adversely affect the status, rights, or privileges of the students. Further, the purpose is to establish due process and safeguards that will be followed by the university in the adjudication of grievances.

A grievance filed under this policy must be initiated within one year of the alleged violation. A grievance may not be filed on the basis of a student’s judgment of an instructor’s or administrator’s competence; such judgments are solely the province of the academic department involved or of the administrator’s supervisor.

The grievance procedure is not designed to replace open communication and understanding, which are vital to the academic process. The student may withdraw the grievance at any stage, at which point the process will immediately terminate. During all stages of the grievance, the burden of proof will be on the student.

The person or entity against whom the complaint is made is referred to in this document as the respondent. The initiator of the grievance is referred to as the grievant. For nonacademic matters, the term dean is also construed to refer to the responsible individual of comparable level—typically an associate vice president or vice president.

In the event that the respondent is at the level of dean or higher, the complaint should be directed to the responsible person at the next higher administrative level. If the chair or program director was directly involved in the original decision or denied the student an opportunity for due-process review at the local level, the student should seek informal resolution through the dean of the college (or designee).

If after ten instructional days beyond the initial informal meeting a satisfactory resolution is not reached, the department chair or program director will meet with the student grievant and the respondent. Within fifteen instructional days of that meeting, the chair or program director will complete an investigation of the allegations and will reach conclusion. The chair or program director shall promptly communicate the decision to the student and the respondent. If the grievant is not satisfied with the results of the informal process, he or she may initiate a formal grievance procedure by contacting the appropriate college dean (or designee) or the responsible person at the next nonacademic level within fifteen instructional days of the decision. (P.S. 07-01)

Formal Grievance Procedure

To initiate the formal grievance procedure, the student is required to submit a written "statement of grievance"—a clear, concise, signed, and dated statement of events from the student's perspective. The statement should provide enough information to present a complete understanding of the situation and of the remedy sought by the student.

A student initiates the formal procedures by submitting the statement of grievance to the appropriate department chair or program director. The chair or director will then submit a copy of the statement of grievance to the appropriate college dean or next appropriate higher administrative level and to the respondent. The respondent is required to submit a written response to the chair or program director with ten instructional days. The chair or program director will then provide a copy of the respondent’s reply to the grievant and to the college dean or next appropriate higher administrative level.

The dean or appropriate administrator has a period of ten instructional days to review the case, during which he or she may opt to seek additional information from the parties involved or from witnesses. By the end of that ten-day period, the dean or administrator will either (1) render a decision or (2) convene a College Hearing Committee to investigate further. The student shall have the right to request that a College Hearing Committee be convened.

College Hearing Committee

If required, a College Hearing Committee will consist of an administrator representing the dean, two faculty members elected from the Faculty Council of the appropriate College, a student representative elected from the Student Council of the appropriate College, a designee of the vice president for student services, and faculty adviser elected by the Academic Advising Council appropriate to the grievance. All meetings of the College Hearing Committee will be closed to the public, and no transcripts will be prepared. If the college hearing committee seeks evidence by means of personal testimony, the meeting at which such evidence is presented shall be conducted in the manner of any other academic committee meeting and is not considered a formal hearing. Both the grievant and respondent shall be given opportunities to present their views. There shall be no cross-examination.

The charge of a College Hearing Committee is to investigate and then to recommend to the dean a proposed resolution. The College Hearing Committee will review the grievance and, if necessary, forward supplemental queries to the respondent and to the department chair and program director involved—along with direction to submit written responses with twenty instructional days. Once the College Hearing Committee has received the written responses, it will review all available evidence, conduct deliberations, and then choose one of the three courses of action:

- Remand the grievance to the dean with a recommendation of immediate corrective action in favor of the grievant—based on sufficient evidence of a violation of (1) university regulation or policy or (2) principle of due process or (3) both.
- Defer a decision to allow for further investigation and gathering of evidence. In the case of such a continuation,
both the grievant and the respondent will be notified in writing of the additional evidence required and whether that evidence should be provided in writing or in personal testimony.

- Dismiss the grievance based on (1) lack of sufficient evidence of a violation of the university regulation or policy and (2) confirmation of adherence to principles of due process.

  The College Hearing Committee will forward the recommendation to the dean. The dean will then make a decision and forward that decision to the respondent and grievant. If neither the respondent nor the grievant requests further review, then the grievance process ends.

  If either party wishes to appeal the decision of the Dean, the appeal, in writing, may be made to the Provost (academic) or appropriate Vice President (non-academic). The appeal must be made within 10 instructional days of the dean’s decision. The Provost or Vice President will notify both parties of the appeal and convene a University Hearing Committee to investigate further.

**University Hearing Committee**

If required, a University Hearing Committee will consist of an administrator representing the Provost, three faculty members selected from the Panel on Professional Responsibility according to the procedures of that policy, and a student elected from the Associated Students, Inc. All meetings of the University Hearing Committee will be closed to the public, and no transcripts will be prepared. If the University Hearing Committee seeks evidence by means of personal testimony, the meeting at which such evidence is presented shall be conducted in the manner of any other academic committee meeting and is not considered a formal hearing. Both the grievant and respondent shall be given opportunities to present their views. There shall be no cross-examination.

The charge of a University Hearing Committee is to investigate and then to recommend to the Provost a proposed resolution. The University Hearing Committee will review the grievance and, if necessary, forward supplemental queries to the respondent and to the Provost — along with direction to submit written responses within 20 instructional days. Once the University Hearing Committee has received the written responses, it will review all available evidence, conduct deliberations, and then choose one of the three courses of action:

- Remand the grievance to the Provost with a recommendation of immediate corrective action in favor of the grievant – based on sufficient evidence of a violation of (1) university regulation or policy or (2) principle of due process or (3) both.
- Defer a decision to allow for further investigation and gathering of evidence. In the case of such a continuation, both the grievant and the respondent will be notified in writing of the additional evidence required and whether that evidence should be provided in writing or in personal testimony.
- Dismiss the grievance based on (1) lack of sufficient evidence of a violation of the university regulation or policy and (2) confirmation of adherence to principles of due process.

The University Hearing Committee will forward the recommendation to the Provost. The Provost will then make a decision and forward that decision to the respondent and grievant. The University Hearing Committee shall function as the final level of this grievance process.

**41301. Standards for Student Conduct**

The University is committed to maintaining a safe and healthy living and learning environment for students, faculty, and staff. Each member of the campus community must choose behaviors that contribute toward this end. Student behavior that is not consistent with the Student Conduct Code is addressed through an educational process that is designed to promote safety and good citizenship and, when necessary, impose appropriate consequences.

(a) **Student Responsibilities**

Students are expected to be good citizens and to engage in responsible behaviors that reflect well upon their university, to be civil to one another and to others in the campus community, and to contribute positively to student and university life.

(b) **Unacceptable Student Behaviors**

The following behavior is subject to disciplinary sanctions:

1. **Dishonesty**, including:
   - (A) Cheating, plagiarism, or other forms of academic dishonesty that are intended to gain unfair academic advantage.
   - (B) Furnishing false information to a University official, faculty member, or campus office.
   - (C) Forgery, alteration, or misuse of a University document, key, or identification instrument.
   - (D) Misrepresenting one’s self to be an authorized agent of the University or one of its auxiliaries.

2. **Unauthorized entry into, presence in, use of, or misuse of University property.**

3. **Willful**, material and substantial disruption or obstruction of a University related activity, or any on-campus activity.

4. **Participating in an activity that substantially and materially disrupts the normal operations of the University, or infringes on the rights of members of the University community.**

5. **Willful**, material and substantial obstruction of the free flow of pedestrian or other traffic, on or leading to campus property or an off-campus University related activity.

6. **Disorderly, lewd, indecent, or obscene behavior at a University related activity, or directed toward a member of the University community.**

7. **Conduct that threatens or endangers the health or safety of any person within or related to the University community, including physical abuse, threats, intimidation, harassment, or sexual misconduct.**

8. **Hazing**, or conspiracy to haze. Hazing is defined as any method of initiation or pre-initiation into a student organization or student body, whether or not the organization or body is officially recognized by an educational institution, which is likely to cause serious bodily injury to any former, current, or prospective student of any school, community college, college, university or other educational institution in this state (Penal Code 245.6), and in addition, any act likely to cause physical...
harm, personal degradation or disgrace resulting in physical or mental harm, to any former, current, or prospective student of any school, community college, college, university or other educational institution. The term "hazing" does not include customary athletic events or school sanctioned events. Neither the express or implied consent of a victim of hazing, nor the lack of active participation in a particular hazing incident is a defense. Apathy or acquiescence in the presence of hazing is not a neutral act, and is also a violation of this section.

(9) Use, possession, manufacture, or distribution of illegal drugs or drug-related paraphernalia, (except as expressly permitted by law and University regulations) or the misuse of legal pharmaceutical drugs.

(10) Use, possession, manufacture, or distribution of alcoholic beverages (except as expressly permitted by law and University regulations), or public intoxication while on campus or at a University related activity.

(11) Theft of property or services from the University community, or misappropriation of University resources.

(12) Unauthorized destruction, or damage to University property or other property in the University community.

(13) Possession or misuse of firearms or guns, replicas, ammunition, explosives, fireworks, knives, other weapons, or dangerous chemicals (without the prior authorization of the campus president) on campus or at a University related activity.

(14) Unauthorized recording, dissemination, or publication of academic presentations (including handwritten notes) for a commercial purpose.

(15) Misuse of computer facilities or resources, including:
   (A) Unauthorized entry into a file, for any purpose.
   (B) Unauthorized transfer of a file.
   (C) Use of another's identification or password.
   (D) Use of computing facilities, campus network, or other resources to interfere with the work of another member of the University community.
   (E) Use of computing facilities and resources to send obscene or intimidating and abusive messages.
   (F) Use of computing facilities and resources to interfere with normal University operations.
   (G) Use of computing facilities and resources in violation of copyright laws.
   (H) Violation of a campus computer use policy.

(16) Violation of any published University policy, rule, regulation or presidential order.

(17) Failure to comply with directions or, or interference with, any University official or any public safety officer while acting in the performance of his/her duties.

(18) Any act chargeable as a violation of a federal, state, or local law that poses a substantial threat to the safety or well being of members of the University community, to property within the University community or poses a significant threat of disruption or interference with University operations.

(19) Violation of the Student Conduct Procedures, including:
   (A) Falsification, distortion, or misrepresentation of information related to a student discipline matter.
   (B) Disruption or interference with the orderly progress of a student discipline proceeding.
   (C) Initiation of a student discipline proceeding in bad faith.
   (D) Attempting to discourage another from participating in the student discipline matter.
   (E) Attempting to influence the impartiality of any participant in a student discipline matter.
   (F) Verbal or physical harassment or intimidation of any participant in a student discipline matter.
   (G) Failure to comply with the sanction(s) imposed under a student discipline proceeding.
   (20) Encouraging, permitting, or assisting another to do any act that could subject him or her to discipline.

(c) Procedures for Enforcing This Code

The Chancellor shall adopt procedures to ensure students are afforded appropriate notice and an opportunity to be heard before the University imposes any sanction for a violation of the Student Conduct Code.

(d) Application of This Code

Sanctions for the conduct listed above can be imposed on applicants, enrolled students, students between academic terms, graduates awaiting degrees, and students who withdraw from school while a disciplinary matter is pending. Conduct that threatens the safety or security of the campus community, or substantially disrupts the functions or operation of the University is within the jurisdiction of this Article regardless of whether it occurs on or off campus. Nothing in this Code may conflict with Education Code Section 66301 that prohibits disciplinary action against students based on behavior protected by the First Amendment.

41302. Disposition of Fees; Campus Emergency; Interim Suspension

The President of the campus may place on probation, suspend or expel students for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such students for the semester, quarter, or summer session in which they are suspended or expelled will be refunded. If the students are readmitted before the close of the quarter, or summer session in which they are suspended, no additional tuition or fees will be required on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, or measures deemed necessary or appropriate to meet the emergency, to safeguard persons and property, and to maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension will be given prompt notice of charges and the opportunity for a hearing within ten days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the
President or designated representative, enter any campus of The California State University other than to attend the hearing. Violation of any condition of interim suspension will be grounds for expulsion.

41303. Conduct by Applicants for Admission

Notwithstanding any provision to the contrary, admission or readmission may be qualified or denied to any persons who, while not enrolled as students, commit acts which, were they enrolled as students, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any persons who, while students, commit acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases will be determined under procedures adopted pursuant to Section 41304.

41304. Student Disciplinary Procedures for The California State University

The Chancellor will prescribe, and may from time to time revise, a code of student disciplinary procedures for The California State University. Subject to other applicable law, this code will provide for determinations of fact and sanctions to be applied for conduct which is a ground of discipline under Sections 41301 or 41302, and for qualified admissions or denial of admission under Section 41303; the authority of the campus President in such matters; conduct-related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a Hearing Officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The Chancellor will report to the Board actions taken under this section.

The current University regulation on alcoholic beverages is stated in the CSULB Policies, Information and Regulations Handbook published by the Office of Student Affairs.

Additional detailed information relating to student discipline is available in the Office of Student Affairs, and from the Office of the Vice President for Student Services.

Civil and Criminal Penalties for Violation of Federal Copyrights Law

Anyone who is found to be liable for copyright infringement may be ordered to pay either actual damages suffered as a result of the infringement along with any profits of the infringer attributable to the infringement that are not already taken into account in computing the actual damages, or “statutory” damages between $750 and $30,000 per work infringed. In the case of a “willful” infringement, a court may award up to $150,000 per work infringed. (See 17 U.S.C. §504.) Courts also have discretion to award costs and attorneys’ fees to the prevailing party. (See 17 U.S.C. §§504 & 505.) Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense. Criminal penalties may vary depending on the nature of the offense and whether the infringer has previously been convicted of criminal copyright infringement under 18 U.S.C. §2319. (See 17 U.S.C. §506 & 18 U.S.C. §2319.)

Administrative Action

Procedures and sanctions of the Office of Student Conduct and Ethical Development are under the administration of the Vice President for Student Affairs and are conducted pursuant to the authority provided in Section 41301 of Title 5 of the California Code of Regulations. Copies of Section 41301 of Title 5 may be found in the University Catalog and the Campus Regulations available in the Office of Student Conduct and Ethical Development. Copies of Chancellor’s Executive Order 970, “Student Conduct Procedures” are also available upon request.

The Vice President for Student Services will report annually to the President and the Chair of the Academic Senate a summary of the charges concerning cheating and plagiarism brought before the Office of Student Conduct and Ethical Development.

Office of Student Conduct and Ethical Development

The Office of Student Conduct and Ethical Development (USU 224) provides assistance with the interpretation and enforcement of campus regulations. Complete copies of the CSULB “Campus Regs,” including a listing of infractions which may result in student disciplinary action under Title 5, Section 41301, of the California Code of Regulations, “Probation, Suspension and Expulsion of Students,” are available in this office; also available are copies of Executive Order 970, “Student Conduct Procedures.” General assistance and aid in directing individuals to the proper procedures, departments and personnel may be obtained in this office.

Alleged violations are investigated primarily through informal office conferences with the involved students. The conferences which are held as a result of impending disciplinary action are:
1. To clarify the referral, the charges, or the circumstances involved;
2. To prevent the incidence of, or further occurrences of, violations; and
3. To educate as a preventive experience and to indicate the possible consequences as a result of committing a violation. Discussion is centered on the cause-and-effect relationship of various courses of action and, when possible, alternate paths or solutions are explored.

Fee Establishment and Policies

Average Support Cost per Full-Time Equivalent Student and Sources of Funds

The total support cost per full-time equivalent student (FTES) includes the expenditures for current operations, including payments made to students in the form of financial aid, and all fully reimbursed programs contained in state appropriations. The average support cost is determined by dividing the total cost by the number of FTES. The total CSU 2014/15 budget amounts were $2,399,439,000 from state General Fund (GF) appropriations (not including GF debt service) and before adding $71.1 million CalPERS retirement adjustment, $1,592,256,000 from tuition fee revenue and after tuition fee discounts (forgone revenue), and $453,018,000 from other fee revenues for a total
of $4,444,713,000. The 2014/15 resident FTES target is 346,050 and the nonresident FTES based on past-year actual is 15,568 for a total of 361,618 FTES. The GF appropriation is applicable to resident students only whereas fee revenues are collected from resident and nonresident students. FTES is determined by dividing the total academic student load (e.g. 15 units per semester) (the figure used here to define a full-time student’s academic load).

The 2014/15 average support cost per FTES based on GF appropriation and net tuition fee revenue only is $11,324 and when including all sources as indicated below is $13,396, which includes all fee revenue (e.g. tuition fees, application fees, and other campus mandatory fees) and debt service in the CSU Operating Fund. Of this amount, the average net tuition and other fee revenue per FTES is $5,643.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount</th>
<th>FTES</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Approp. (GF)</td>
<td>2,399,439,000</td>
<td>6,934</td>
<td>51.8%</td>
</tr>
<tr>
<td>General Fund Debt Service</td>
<td>296,316,000</td>
<td>819</td>
<td>6.1%</td>
</tr>
<tr>
<td>Net Tuition Fee Revenue</td>
<td>1,592,256,000</td>
<td>4,390</td>
<td>32.8%</td>
</tr>
<tr>
<td>Other Fee Revenues</td>
<td>453,018,000</td>
<td>1,253</td>
<td>9.3%</td>
</tr>
<tr>
<td><strong>Total Support Cost</strong></td>
<td><strong>4,741,029,000</strong></td>
<td><strong>13,396</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Procedure for the Establishment or Abolishment of Campus-Based Fees

The law governing the California State University provides that specific campus fees defined as mandatory, such as a student body association fee and a student body center fee, may be established. A student body association fee must be established upon a favorable vote of two-thirds of the students voting in an election held for this purpose (Education Code, Section 89300). The campus President may adjust the student body association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose (Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus President containing the signatures of 10 percent of the regularly enrolled students at the University. Once bonds are issued, authority to set and adjust student body center fees is governed by provisions of the State University Revenue Bond Act of 1947, including, but not limited to, Education Code sections 90012, 90027, and 90068.

A student body center fee may be established only after a fee referendum is held which approves by a two-thirds favorable vote the establishment of the fee (Education Code, Section 89304). The student body fee was established at CSULB by student referendum in April 7, 2000. The campus President may adjust the student body association fee only after the fee adjustment has been approved by a majority of students voting in a referendum established for that purpose (Education Code, Section 89300). The required fee shall be subject to referendum at any time upon the presentation of a petition to the campus President containing the signatures of 10 percent of the regularly enrolled students at the University. Once bonds are issued, authority to set and adjust student body center fees is governed by provisions of the State University Revenue Bond Act of 1947, including, but not limited to, Education Code, sections 90012, 90027, and 90068. Student body association fees support a variety of cultural and recreational programs, childcare centers, and special student support programs.

The process to establish and adjust other campus-based mandatory fees requires consideration by the campus fee advisory committee and a student referendum as established by Executive Order 1054, Section III. The campus President may use alternate consultation mechanisms if he/she determines that a referendum is not the best mechanism to achieve appropriate and meaningful consultation. Results of the referendum and the fee committee review are advisory to the campus President. The President may adjust campus-based mandatory fees, but must request the Chancellor establish a new mandatory fee. The President shall provide to the fee advisory committee a report of all campus-based mandatory fees. The campus shall report annually to the Chancellor a complete inventory of all campus-based mandatory fees.

For more information or questions, please contact the Budget Office in the CSU Chancellor’s Office at (562) 951-4560.

Tax Credits for Higher Education

The Taxpayer Relief Act of 1997 encourages postsecondary and continuing education by providing tax benefits to students and their families. Taxpayers can claim one, or in some cases, two of these new tax credits for expenses they pay for postsecondary education for themselves and their dependent children. These tax credits can directly reduce the amount of federal income tax for returns filed.

The Hope Scholarship Credit is available on a per-
student basis for the first two years of postsecondary education. The maximum credit is $1,500 per student. It will be offered to students or parents who pay tuition and related expenses for attendance at least half-time in a degree-granting program.

The Lifetime Learning Credit provides a tax credit to parents and/or students of up to $2,000 of total annual educational expenses, per return.

Education expenses that are paid with tax-free grants, scholarships, are not eligible for either tax credit. Education expenses paid with loans are eligible for these tax credits. Interest paid on qualified student loans may also be deductible from taxpayer income. Interest can be taken as a deduction during the first 60 months (5 years) of repayment on student loan.

To assist you in taking advantage of these tax credits, the University will provide you with the following information:

- Form 1098T (Tuition Payments Statement) - This form must be submitted along with your federal tax return to claim these credits.
- Form W-9S (Request for Student's or Borrower's Social Security Number and Certification). This form should be completed and returned to the University, if your social security number is incorrect.
- Telephone inquiries at (562)985-8280
- Online at MyCSULB.edu
- In-person inquiries at Brotman Hall 155
- IRS Publication 970, Tax Benefits for Education www.irs.gov

Either your lender or loan servicer will provide interest deduction information to you. Those eligible will be provided with a 1098E form, which must be submitted along with your federal tax return to claim this deduction.

NOTE: The information described above, and the information available via mysculb or phone regarding the new tax benefits, is in general terms. Your ability to claim these tax benefits depends on your individual circumstances. We recommend that you consult a tax advisor to determine your personal eligibility.
Emeriti Faculty
(Number in parentheses indicates year of appointment)

Ingrid Aall (1969) Professor Emerita, 2002
Art
Herbert L. Aarons (1965) Associate Professor Emeritus, 1991
Sociology
Social Work
Chemistry and Biochemistry
History
History
Eugene Albert (1967) Associate Professor Emeritus, 1992
Mathematics
Occupational Studies
Civil Engineering
Advanced Studies in Education and Counseling
Civil Engineering
Frank J. Alfieri (1967) Professor Emeritus, 1994
Biological Sciences
Mathematics
History
Music
Dance
Biological Sciences
Academic Affairs
Shane Andre (1967) Professor Emeritus, 1994
Philosophy
Chemistry and Biochemistry
Carl R. Anselmo (1964) Professor Emeritus, 1994
Biological Sciences
Mary Anwar (1977) Lecturer Emerita, 2009
Educational Psychology, Administration, and Counseling
Muhammad Z. Anwar (1965) Professor Emeritus 2010
Physics and Astronomy
Biological Sciences
Alfonso L. Archuleta (1965) Associate Professor Emeritus, 1983
Spanish/Portuguese
Chicano and Latino Studies
Teacher Education/Linguistics
Mathematics
Physics and Astronomy
Mathematics
Patricia A. Bachelor (1985) Professor Emerita, 2005
Psychology
Mathematics and Statistics
Jerry Bailor (1968) Associate Professor Emeritus, 1990
Theatre Arts

Peter Baine (1968) Professor Emeritus, 2001
Chemistry and Biochemistry
Radio, Television, and Film
Biological Sciences
Comparative World Literature and Classics
Anthropology
Management and Human Resources Management
Religious Studies
Roger D. Bauer (1959) Dean, Professor Emeritus, 1992
Chemistry
Alwin L. Baum (1989) Professor Emeritus, 2010
Comparative World Literature and Classics
Randall C. Beattie (1972) Professor Emeritus, 2010
Communicative Disorders
Marion S. Beaumont (1967) Professor Emerita, 1996
Economics
Psychology
Mathematics
Finance, Real Estate and Law
Donald A. Beegle (1963) Professor Emeritus, 1988
Health Science
Virginia M. Belt (1963) Professor Emerita, 1983
Finance
Educational Psychology, Administration, and Counseling
Marilyn J. Bergin (1971) Senior Assistant Librarian Emerita, 1997
History
History
Stewart Berkshire (1974) Associate Professor Emeritus, 1988
Accountancy
Educational Psychology, Administration, and Counseling
Public Policy and Administration
David A. Bernstein (1967) Professor Emeritus, 1999
History
Arnold J. Berry (1973) Professor Emeritus, 1992
Chemistry and Biochemistry
Chemistry and Biochemistry
California Institute for the Preservation of Jazz
Romance, German, Russian Languages and Literatures
Mark C. Biedebach (1967) Professor Emeritus, 1996
Biological Sciences
Finance
Virginia L. Binder (1967) Professor Emerita, 2004
Psychology
Albert G. Black (1962) Associate Professor Emeritus, 1988
English
Social Work
Paul V. Black (1969) Professor Emeritus, 2005
History
Stuart E. Black (1962) Associate Professor Emeritus, 1991
Computer Engineering and Computer Science
Public Policy and Administration
Accountancy

2016-2017 CSULB Catalog • Emeriti Faculty • 897
Emeriti Faculty

Marketing

Educational Psychology and Administration

Teacher Education

Physical Therapy

Theatre Arts

Psychology

Earl R. Carlson (1961) Professor Emeritus, 1990
Biological Sciences

David Carlberg (1966) Professor Emeritus, 1999
Computer Engineering and Computer Science

Joel W. Carissimo (1969) Professor Emeritus, 2004
Counseling and Psychological Services

Romance, German, Russian Languages and Literatures

Harold L. Cannon (1968) Professor Emeritus, 2000
English

Keith R. Colman (1970) Professor Emeritus, 2004
History

Civil Engineering

Chunduri V. Chelapati (1965) Professor Emeritus, 1996
Civil Engineering

Women's, Gender and Sexuality Studies/Sociology

Management and Human Resources Management

Francis L. Christ (1972) Counselor Emeritus, 1989

Hsiao-Ling Chu (1972) Professor Emeritus, 2006
Civil Engineering and Construction Engineering Management

Cheryl Clark (1969) Associate Professor Emerita, 2000
Philosophy

Patricia J. Clark (1990) Professor Emerita, 2002
Art

Sandra J. Cynar (1986) Professor Emerita, 2005
Music

Wendy A. Culotta (1973) Librarian Emerita, 2004

Simeon J. Crowther (1968) Professor Emeritus, 2003
Economics

Jeffrey A. Cohlberg (1975) Professor Emeritus, 2011
Chemistry and Biochemistry

Economics

Charles T. Collins (1968) Professor Emeritus, 2001
Biological Sciences

History

Keith R. Colman (1970) Professor Emeritus, 2004
Psychology

Michael E. Connor (1971) Professor Emeritus, 2004
Psychology

Jean L. Conroy (1961) Associate Professor Emerita, 1994
Mathematics

Art

English

Margaret D. Costa (1974) Professor Emerita, 2010
Kinesiology


School of Nursing

Peter A. Cowan (1981) Professor Emeritus, 2004
Accountancy

Joan Cobin (1973) Professor Emerita, 1988
Nursing


Janet Campbell (1965) Senior Assistant Librarian, Emerita, 1998

Margaret D. Costa (1974) Professor Emerita, 2010

Hsiao-Ling Chu (1972) Professor Emeritus, 2006

Cheryl Clark (1969) Associate Professor Emerita, 2000

Philosophy

Patricia J. Clark (1990) Professor Emerita, 2002
Art

Sandra J. Cynar (1986) Professor Emerita, 2005

Music

Domenic Cretara (1986) Professor Emeritus, 2010

Randy A. Cirelli (1989) Professor Emeritus, 1999


Marketing


History
Murray D. Dailey (1966) Professor Emeritus, 1992
Biological Sciences
Donald L. Dame (1965) Professor Emeritus, 1992
Art
Richard Danay (1985) Professor Emeritus, 2005
American Indian Studies
Barry M. Dank (1968) Professor Emeritus, 2000
Sociology
Carl M. Danson (1965) Professor Emeritus, 2000
Psychology
Electrical Engineering
Kinesiology
Molly Debyasingh (1972) Professor Emerita, 1997
Geography
School of Nursing
Martha J. Dede (1999) Associate Professor Emerita, 2010
Graduate Center for Public Policy and Administration
Mathematics and Statistics
Doris C. DeHardt (1961) Professor Emerita, 1988
Psychology
John de Heras (1967) Professor Emeritus, 1997
Art
Kathryn V. Deitch (1997) Associate Professor Emerita, 2010
School of Nursing
Beverly DeLong-Tonelli (1966) Professor Emerita, 1993
Romance, German, Russian Languages and Literature
Political Science
Zohrab Demirdjian (1979) Professor Emeritus, 2005
Marketing
George D. Demos (1962) Professor Emeritus, 1983
Educational Psychology
Christopher D. Dennis (1985) Professor Emeritus, 2013
Political Science
Mechanical and Aerospace Engineering
Robert J. DeVoe (1968) Associate Professor Emeritus, 1992
Management/Human Resources Management
Chemistry and Biochemistry
Computer Engineering and Computer Science
Finance, Real Estate and Law
Home Economics
Gene L. Dinelli (1968) Professor Emeritus, 2010
English
Keith A. Dixon (1958) Professor Emeritus, 1992
Anthropology
Carl H. Dorn (1968) Professor Emeritus, 2013
Mathematics and Statistics
Information Systems
University Library
Stacy E. Dukes (1964) Associate Professor Emerita, 1988
Design
Dowell, David A. (1977) Interim Provost and Senior Vice President Academic Affairs
Professor, Emerita, 2016
Psychology
Stephanie L. Eaton (1998) Associate Professor Emerita, 2010
Health Science
Educational Psychology, Administration, and Counseling
Betty V. Edmondson (1964) Professor Emerita, 1999
Kinesiology and Physical Education
Economics
Robert F. Eggers (1964) Professor Emeritus, 1994
Theatre Arts
Robert H. Eisenman (1973) Professor Emeritus, 2002
Religious Studies
Lowell J. Eliason (1965) Professor Emeritus, 2002
Physics and Astronomy
Social Work
Counseling and Psychological Services
Civil Engineering
Health Science
Computer Engineering and Computer Science
Health Care Administration
Stuart Farber (1960) Assistant Dean of Students and Professor Emeritus, 2003
Student Services
Economics
Frank J. Fata (1986) Associate Dean Emeritus and Professor Emeritus, 2004
College of Liberal Arts/Comparative World Literature and Classics
Mamdou M. Fayek (1989) Professor Emeritus, 2005
Design
Film and Electronic Arts
English
Patricia Finot (1977) Professor Emerita, 1999
Dance
Psychology
Kinesiology
Romance, German, Russian Languages and Literatures
Gerald Ford (1969) Associate Professor Emeritus, 1994
Management/Human Resources Management
Kristine K. Forney (1978) Professor Emerita, 2011
Music - Bob Cole Conservatory of Music
Barbara Franklin (1967) Professor Emerita, 2000
Kinesiology and Physical Education
Geological Sciences
Health Care Administration
Elliot Fried (1970) Emeritus, 2004
English
Health Science
History
Alice A. Gabrielson (1961) Senior Assistant Librarian Emerita, 1987
Charles P. Galt (1973) Professor Emeritus, 2004
Biological Sciences
John J. Garhammer (1985) Professor Emeritus, 2005
Kinesiology
Journalism
Barbara C. George (1961) Professor Emerita, 2001
Finance, Real Estate and Law
Physics and Astronomy
Information Systems
Norma B. Gibbs (1966) Associate Professor Emerita, 1992
Educational Psychology and Administration
Paul R. Gilon (1968) Professor Emeritus, 1992
Information Systems
Mechanical and Aerospace Engineering
Jeanette W. Gildorf (1989) Professor Emerita, 2004
Information Systems
Computer Engineering and Computer Science
Constance W. Glenn (1973) Professor Emerita, 2004
Art
Agatshi Glezakos (1975) Lecturer Emerita, 2013
Social Work
Constantine Glezakos (1968) Professor Emeritus, 2003
Economics
Kathryn E. Goddard (1969) Director Emeritus, 2004
Center for Collaboration in Education
Information Systems
Yvonne V. Gold (1972) Professor Emerita, 1998
Teacher Education
Dorothy M. Goldish (1958) Professor Emerita, 2003
Chemistry and Biochemistry
Kinesiology and Physical Education
Catherine C. Goodman (1985) Professor Emerita, 2011
School of Social Work
Theatre Arts
History
Franklin E. Gossette (1987) Professor Emeritus, 2005
Geography
Accountancy
Jean M. Granger (1972) Professor Emerita, 2002
Social Work
Geological Sciences
School of Art
Kenneth F. Green (1968) Professor Emeritus, 2014
Psychology
History
Advanced Studies in Education and Counseling
Anthropology
Kenneth M. Gregory (1973) Professor Emeritus, 2001
Biological Sciences
Art
Women’s Studies
Betty Rose Griffith (1968) Professor Emerita, 1988
Physical Education
Dixie A. Grimmett (1965) Professor Emerita, 2006
Kinesiology
Calvin D. Gross (1962) Professor Emeritus, 1992
Art
Physics and Astronomy
Mechanical and Aerospace Engineering
Philosophy
Nezih Gunal (1989) Assistant Professor Emeritus, 2005
Civil Engineering and Construction Engineering Management
Information Systems
History
Kinesiology
Holly Harbinger, (1986) Associate Vice President
Academic Affairs, Faculty Affairs
Professor, Emerita, 2014
Theatre Arts
David A. Hadlock (1985) Professor Emeritus, 2010
Art
Elaine J. Haglund (1972) Professor Emerita, 2004
Educational Psychology, Administration, and Counseling
Judith A. Hails (1972) Professor Emeritus, 2000
Criminal Justice
Kinesiology
Kathleen J. Halberg (1988) Associate Professor Emerita, 2001
Recreation and Leisure Studies
Religious Studies
Darwin C. Hall (1986) Professor Emeritus, 2010
Economics
Thomas E. Hall (1981) Professor Emeritus, 2005
Art
Michael J. Halliwell (1968) Professor Emeritus, 2004
Sociology
Arlene D. Hamilton (1966) Associate Professor Emerita, 1983
Home Economics
Management/Human Resources Management
Forrest E. Harding (1971) Professor Emeritus, 2000
Marketing
Charles V. Harlow (1968) Professor Emeritus, 1994
Finance, Real Estate and Law
Sociology
Anthropology
Alice M. Harris (1969) Professor Emerita, 1998
Educational Psychology, Administration, and Counseling
Edwin R. Harris (1959) Professor Emeritus, 1997
Chemistry and Biochemistry
Psychology
Art
Computer Engineering and Computer Science
Luster E. Hauth (1964) Professor Emeritus, 1992
Speech Communication
Political Science
Engineering Technology
Health Science
Management/Human Resources Management
Linguistics/English
Truman O. Hickerson, Jr. (1965) Professor Emeritus, 1992
Accountancy
William J. Hickman (1989) Associate Professor Emeritus, 2011
Theatre Arts
John E. Higgins (1964) Professor Emeritus, 1980
History
Lloyd R. Hile (1968) Professor Emeritus, 2004
Chemical Engineering
English
Howard G. Hitchcock (1958) Professor Emeritus, 1990
Art
Ju-Shey Ho (1970) Professor Emeritus, 1999
Biological Sciences
English
Rose Marie Hoffman (1997) Professor Emerita, 2010
Advanced Studies in Education and Counseling

Donald Hohl (1968) Lecturer Emeritus, 2013
English
Marketing

Advanced Studies in Education and Counseling

Adolore L. Houde (1965) Professor Emeritus, 1985
Electrical Engineering

Chi-yu Yang Hu (1963) Professor Emerita, 2005
Physics and Astronomy

Harold G. Hubbard (1970) Professor Emeritus, 1999
Sociology

David G. Huckaby (1973) Associate Professor Emeritus, 2013
Biological Sciences

Philosophy

Edward J. Hughes (1990) Associate Professor Emeritus, 2014
Religious Studies

Educational Psychology and Administration

Health Care Administration

Ralph B. Hupka (1969) Professor Emeritus, 2005
Psychology

Lloyd T. Inui (1965) Professor Emeritus, 1992
Asian and Asian American Studies

Tomotaka Ishimine (1967) Professor Emeritus, 2006
Economics

Cathern M. Irwin (1961) Associate Professor Emerita, 1983
Health Science

Biological Sciences

Hazel O. Jackson (1994) Professor Emerita, 2004
Family and Consumer Sciences

Mary Jacob (1980) Professor Emerita, 2004
Family and Consumer Sciences

Min-Ten Jahn (1966) Professor Emeritus, 2010
Mechanical and Aerospace Engineering

Recreation and Leisure Studies

Kenneth (James, 1982) Professor, Emeritus, 2015
Electrical Engineering/Computer Engineering and Computer Science

Mathematics and Computer Science

Emanuel Jarasunas (1976) Professor Emeritus, 2002
Engineering Technology

Biological Sciences

Marilyn Jensen (1965) Associate Vice President, Dean of University Academic Programs and Professor Emerita, 2000
Recreation and Leisure Studies

Owen O. Jenson (1966) Professor Emeritus, 1994
Speech Communication

Comparative World Literature and Classics

Teacher Education

University Library and Learning Resources

Leayn Johnson (1981) Professor Emerita, 2005
Nursing

Richard J. Johnson (1959) Professor Emeritus, 1992
Instructional Systems Technology

William M. Johnson (1965) Associate Professor Emeritus, 2004
Philosophy

Irene Jones (1989) Professor Emerita, 2004
Romance, German, Russian Language and Literatures

Kristi S. Jones (1968) Professor Emerita, 2001
Art

Rita H. Jones (1964) Professor Emerita, 1996
Teacher Education

Thimios J. Jordanides (1964) Professor Emeritus, 2004

Electrical Engineering

Dale O. Jorgenson (1972) Professor Emeritus, 2009
Psychology

John R. Jung (1968) Professor Emeritus, 2002
Psychology

Romance, German, Russian Languages and Literatures

Stanley Kahan (1961) Professor Emeritus, 1994
Theatre Arts

Asian and Asian American Studies/History

Thomas J. Kampwirth (1971) Professor Emeritus, 1999
Educational Psychology, Administration, and Counseling

Asian and Asian American Studies


Geography

Elizabeth S. Kaufman (1963) Professor Emerita, 1989
Nursing

Chemical Engineering

Michael L. Kearney (1960) Professor Emeritus, 1996
Finance, Real Estate and Law

Communication Studies

Kathleen L. Keller (1983) Professor Emerita, 2000
Nursing

Nursing

Journalism

Physics and Astronomy

Art

Rowland E. Kerr (1968) Director Emeritus, 1995
Student Life and Development

French-Italian

Information Systems

Biological Sciences

Fareed Khoiny (1990) Associate Professor Emerita, 2008
Nursing

Biological Sciences

Geography

Ronald L. King (1964) Professor Emeritus, 1991
Information Systems

Social Work

Biological Sciences and Gerontology

English

Teacher Education

Theatre Arts

Margaret L. Korostoff (1969) Professor Emerita, 1988
Nursing

Charles J. Kokaska (1969) Professor Emeritus, 1999
Educational Psychology, Administration, and Counseling

Mary J. Korostoff (1996) Professor Emerita, 2010
Advanced Studies in Education and Counseling

Lloyd Kramer (1973) Associate Director Library Emeritus, 1986


Art

Biological Sciences

2016-2017 CSULB Catalog • Emeriti Faculty • 901
Emeriti Faculty
George M. Scott (1990) Associate Professor Emeritus, 2011
Anthropology

Elbert W. Segelhorst (1964) Professor Emeritus, 1992
Economics

Nail M. Senozan (1968) Professor Emeritus, 2002
Chemistry and Biochemistry

Thomas M. Serrett (1963) Assistant Librarian Emeritus, 1980
Mathematics

Tyntje Shapil (1983) Professor Emerita, 2000
Dance

Art

Public Policy and Administration

Carol Shaw-Sutton (1989) Professor Emerita, 2010
Art

English

Physics and Astronomy

Accountancy

Theatre Arts

Family and Consumer Sciences

Biological Sciences

Martha A. Siegel (1975) Professor Emerita, 1994
Nursing

Economics

Sidney B. Sims, Jr. (1960) Senior Assistant Librarian Emeritus, 1994
University Library

Lorelei P. Sinclair (1966) Assistant Librarian Emerita, 1991
University Library

Kinesiology and Physical Education

Davinder Singh (1983) Professor Emeritus, 2009
Economics

Theatre Arts

Iva L. Skov (1972) Professor Emerita, 1998
Economics

Sociology

Elbert L. Sleeper (1957) Professor Emeritus, 1992
Biological Sciences

University Library

Alton H. Smith (1957) Professor Emeritus, 1992
Mathematics

Communication Studies/Film and Electronic Arts

Management and Human Resources Management

Judy E. Smith (1980) Professor Emerita, 2010
School of Nursing

Donald H. Smith (1960) Professor Emeritus, 1986
Industrial Education

Peggy J. Smith (1968) Professor Emerita, 1992
Sociology

Management/Human Resources Management

Theatre Arts

Sara W. Smith (1969) Professor Emerita, 2004
Psychology/Linguistics

John C. Snidecor (1969) Professor Emeritus, 2005
Art

English

University Library

Communicative Disorders

Political Science

Lydia Sondhi (1985) Associate Professor Emerita, 2009
Family and Consumer Sciences

George A. Spangler (1971) Professor Emeritus, 2004
Philosophy

Colleen Sparks (1978) Professor Emerita, 1997
Nursing

Judith Sparks (1985) Lecturer Emerita, 2010
Management and Human Resources Management

Richard D. Spiese (1967) Associate Professor Emeritus, 1997
English

Marketing

Geography

History

Bede Ssensalo (1977) Professor Emeritus, 2010
Africana Studies

Sue M. Stanley (1986) Associate Dean, Emerita, 2014
College of Health and Human Services

Associate Professor
Family and Consumer Sciences

Management and Human Resources Management

Raymond T. Stefani (1971) Professor Emeritus, 2004
Electrical Engineering

Mathematics and Statistics

Journalism

Barry H. Steiner (1968) Professor Emeritus, 2012
Political Science

A. Jay Stevens (1968) Professor Emeritus, 2002
Political Science

Thomas G. Stevens (1973) Psychologist Emeritus, 2004
Counseling and Psychological Services

Information Systems

Herbert Stone (1958) Professor Emeritus, 1995
Management/Human Resources Management

History

Family and Consumer Sciences

Roy A. Sugimoto (1969) Associate Professor Emeritus, 1988
Teacher Education

English

Dee Bruce Sun (1990) Professor Emeritus, 2007
Information Systems

Frank E. Swatek (1956) Professor Emeritus, 1992
Biological Sciences

Frederick M. Swensen (1961) Professor Emeritus, 1990
French/Italian

Library

Teacher Education

Physics and Astronomy
Emeriti Faculty

Mary Christine Talmadge (1993) Professor Emerita, 2001
Nursing

Peng-Hock Philip Tan, (2001) Associate Professor
School of Social Work

Lindsay A. Tartre, (1985) Professor, Emeritus, 2015
Mathematics and Statistics

Norma Bernstein Tarrow (1968) Professor Emeritus, 1997
Teacher Education
Management/Human Resources Management
Joan C. Templeton (1957) Professor Emerita, 1994
Design

Finance

Teacher Education
Psychology

Lindsay Thomas, Jr. (1961) Professor Emeritus, 1992
French and Italian

Communicative Disorders

Accountancy

Djoe T. Tjioe (1970) Associate Professor Emeritus, 2000
Biological Sciences

Kinesiology and Physical Education
Mechanical Engineering

Criminal Justice

Technology Education

Chan-Feng Tsai (1982) Professor Emeritus, 2009
Civil Engineering and Construction Engineering Management

Chemical Engineering

Ching H. Tsao (1965) Professor Emeritus, 1986
Mechanical Engineering

Asian and Asian American Studies

Health Care Administration

Efraim Turban (1991) Professor Emeritus, 1999
Information Systems

Sociology

College of Education / Teacher Education

M. Barbara Turner (1966) Professor Emerita, 1999
Mathematics

Geography

African Studies

Paul S. Ullman (1958) Professor Emeritus, 1994
Sociology

Music - Bob Cole Conservatory of Music
Julie Van Camp (1990) Professor Emerita, 2010
Philosophy

Art

Katherine Van Giffen (1987) Associate Professor Emerita, 2010
Human Development/Advanced Studies in Education and Counseling

History

Maria L. Viera (1989) Professor Emerita, 2010
Theatre Arts

Mary Ellen Vogt (1989) Professor Emerita, 2004
Teacher Education

Computer Engineering and Computer Science

Mechanical and Aerospace Engineering

Geological Sciences

(Milton) Glenn Walker (1964) Professor Emeritus, 1988
Sociology

Eugene C. Wallin (1956) Professor Emeritus, 1990
Art

Communicative Disorders/Linguistics

Mathematics

Stuart L. Warter (1965) Professor Emeritus, 1997
Biological Sciences

Arthur K. Wayman (1976) Professor Emeritus, 2005
Mathematics and Statistics

History


Mathematics and Statistics

Electrical Engineering


University Library

Philosophy and Asian and Asian American Studies

Donald J. Weinstock (1969) Professor Emeritus, 2000
English

Kaye E. West (1989) Associate Professor Emerita, 2000
Teacher Education

Geography

Paul M. Whisenand (1965) Professor Emeritus, 2000
Criminal Justice

Elaine E. White (1974) Professor Emerita, 2002
Nursing

Sociology

Betty Williams (1989) Professor Emerita, 1996
Nursing

Computer Engineering and Computer Science/Mathematics

Geological Sciences

Occupational Studies

Stanley Wolf (1979) Professor Emeritus, 1997
Electrical Engineering

Information Systems

Physics and Astronomy

Claudia R. Wright (1988) Professor Emerita, 2004
Educational Psychology, Administration, and Counseling

David J. Wurzer (1972) Professor Emeritus, 2001
Kinesiology and Physical Education

Chemistry and Biochemistry

Asian and Asian American Studies

Alf F. Yano (1963) Professor Emeritus, 1992
Physics and Astronomy
Design
Jo Ann R. Yates (1968) Professor Emerita, 1986
Communicative Disorders
Mechanical and Aerospace Engineering
Bing C. Yen (1964) Professor Emeritus, 1992
Civil Engineering
Civil Engineering
Fathi S. Yousef (1972) Professor Emeritus, 1997
Speech Communication
George J. Zebot (2005) Professor Emeritus, 2010
Art
Abbuhi, Rebekah (2005)  .................................................................Associate Professor
Linguistics
B.A., Beloit College, Wisconsin; M.A., Ohio State University; Ph.D., Georgetown University.

Abrams, David J. (1985) .............................................................Professor
Management/Human Resources Management
B.A., University of California, Santa Cruz; M.A., Ph.D. University of Michigan.

Abrams, Jessica (2006) ...............................................................Professor
Communication Studies
B.A., M.A., California State University, Long Beach; Ph.D., University of California, Santa Barbara.

Acey, Roger A. (1983) .................................................................Professor
Chemistry and Biochemistry
B.S., Ph.D. Wayne State University, Emeritus, 2012.

Achola, Edwin (2013) .................................................................Assistant Professor
Advanced Studies in Education and Counseling
B.Ed., Maseno University, Kenya; M.Ed., Indiana University, Pennsylvania; Ph.D., Virginia Commonwealth University.

Acosta-Deprez, Veronica M. (1996) ........................................Professor
Health Science
B.S., St. Louis University, Philippines; M.S., Ph.D., University of Wisconsin, Madison.

Adams, Stephen T. (2000) ..........................................................Professor
Advanced Studies in Education and Counseling
B.A., Grinnell College; M.A., Ph.D., University of California, Berkeley.

Aghekyan, Marine (2009) .........................................................Associate Professor
Family and Consumer Sciences
B.S., Yerevan State Engineering University, Armenia; M.A., Ph.D., Auburn University.

Ahland, Michael (2015) .............................................................Assistant Professor
Linguistics
B.S., University of Missouri, Columbia; M.A., University of Texas, Arlington; Ph.D., University of Oregon.

Ahrens, Courtney E. (2002) .......................................................Professor
Psychology
B.A., Smith College; M.A., Ph.D., University of Illinois, Chicago.

Ai, Ruixi (2009) .................................................................Assistant Professor
Asian and Asian American Studies
B.A., M.A., Guangzhou Institute of Foreign Languages, China; Ph.D., Harvard University.

Allencar, Michelle (2015) .........................................................Assistant Professor
Kinesiology
B.S., University of California, Davis; M.S., Ph.D., University of New Mexico.

Aliasgari, Mehrdad (2013) .......................................................Assistant Professor
Computer Engineering and Computer Science
B.S., Sharif University of Technology, Iran; M.S., Ph.D., University of Notre Dame.

Allimohamed-Wilson, Sabrina (2012) .................................Assistant Professor
Sociology/ Women's Gender, and Sexuality Studies
B.A., M.A., M.A., California State University, Berkeley; Ph.D., University of California, Riverside.

Allen, Bengt (2007) ...............................................................Associate Professor
Biological Sciences
B.A., Pomona College; M.S., San Diego State University; Ph.D., Stony Brook University.

Allen, Terre (1990) .................................................................Interim Senior Director
Faculty Center for Professional Development

Alimohamed-Wilson, Sabrina (2012) .................................Assistant Professor
Sociology/ Women's Gender, and Sexuality Studies
B.A., M.A., M.A., California State University, Berkeley; Ph.D., University of California, Riverside.

Amirkhan, James H. (1988) ....................................................Professor
Psychology
B.A., Reed College; M.A., California State University, Northridge; Ph.D., California, Los Angeles.

Ammermann, Peter A. (1999) ..................................................Associate Professor
Finance
B.B.A., Roanoke College; M.B.A., Ph.D., Virginia Polytechnic Institute and State University.

An, Shuhua (2000) ...............................................................Professor
Teacher Education
B.A., Nanjing Normal University, China; M.B.A., Texas A&M International University; Ph.D., Texas A&M University.

Andersen, Leslie N. (2002) ......................................................Librarian
University Library
B.M., University of Southern California; M.M., M.L.S., Florida State University, Tallahassee.

Anderson, John (2006) .............................................................Professor
Film and Electronic Arts
B.A., Ph.D., Cornell University.
B.A., University of California, Los Angeles; M.A., Ph.D., University of California, Santa Barbara.

Ban, Hyowon (2009) ........................................... Associate Professor
Geography
B.A., M.A., Ewha Woman's University, Seoul, Korea; Ph.D., Ohio State University.

Banuett, Flora (2002) ............................................. Professor
Biological Sciences
B.A., Ph.D., University of Oregon.

Baralt, Lori B. (2000) ............................................. Associate Professor
Women's, Gender, and Sexuality Studies
B.A., University of Florida; Ph.D., Michigan State University.

Barcellona, John (1989) ........................................... Professor
Music - Bob Cole Conservatory of Music
B.M., University of Hartford; M.A., California State University, Long Beach; D.M.A., University of Southern California.

Barjasteh, Ehsan (2015) ........................................... Assistant Professor
Mechanical and Aerospace Engineering and Chemical Engineering
B.Sc., Sharif University of Technology, Iran; M.Sc., Ph.D., University of Southern California.

Barkey, Heather R. (2012) ........................................... Assistant Professor
Design
B.Arch, University of Cincinnati; M.Arch, Southern California Institute of Architecture, Los Angeles.

Barnes, Nielan (2005) ............................................ Associate Professor
Sociology
B.A., San Diego State University; M.A., Ph.D., University of California, San Diego.

Barrack-Gardner, Michelle T. (2014) ............................. Professor
Family and Consumer Sciences
B.A., University of California, Los Angeles; M.S., San Diego State University; Ph.D., University of California, Davis.

Bavarian, Niloofar (2014) ........................................... Assistant Professor
Health Science
B.S., University of California, Santa Barbara; M.P.H., Ph.D., Oregon State University.

Becker, James (2013) ............................................. Assistant Professor
Kinesiology
B.A., Middlebury College; M.S., Ph.D., University of Oregon.

Becker, Matthew W. (2008) ............................................ Professor
Geological Sciences
B.S., Michigan State University; M.S., Ph.D., University of Texas, Austin.

Behl, Richard J. (1995) ............................................. Professor
Geological Sciences
B.A., University of California, San Diego; Ph.D., University of California, Santa Cruz.

Behzad, Banafsheh (2014) ........................................... Assistant Professor
Information Systems
B.S., Sharif University of Technology, Iran; M.S., Northern Illinois University, DeKalb; Ph.D., University of Illinois, Urbana.

Beneck, George J. (2011) ............................................ Associate Professor
Physical Therapy
B.S., Temple University, Philadelphia; M.S., Michigan State University; Ph.D., University of Southern California.

Benitez, Juan M. (2001) ........................................... Executive Director
Center for Community Engagement (CCE)

Blazey, Michael A. (1990) ............................................ Interim Director of Academic Facilities

Blazey, Michael A. (1990) ............................................ Interim Director of Academic Facilities
Blumberg, Jeffrey C. (2004) .............................. Associate Professor
History
B.A., University of California, Berkeley; M.A., Ph.D., University of California, Los Angeles.

Blumenthal, Sharyn C. (1988) ............................................. Professor
Film and Electronic Arts
B.S., Southern Illinois University.

Bloomquist, Thomas (2007) ............................................. Associate Professor
Film and Electronic Arts
B.A., University of Southern California; M.A., Oregon State University; M.B.A., California State University, Long Beach; Ph.D., University of Southern California.

Blumenthal, Sharyn C. (1988) ............................................. Professor
Film and Electronic Arts

Bojarsky, David (1983) ............................................. Professor
Accountancy
B.S., California State University, Los Angeles; M.A., Ph.D., University of Northern Colorado. Emeritus, 2012.
Bordeaux, Valerie (1986) ................................................................. Director
University Outreach/School Relations
B.A., California State University, Fullerton.

Botkin, Marie M. (2012) ................................................................. Assistant Professor
Family and Consumer Sciences
B.A., M.A., Ph.D., University of Minnesota, St. Paul.

Boyd-Batstone, Paul S. (2005) ......................................................... Professor
Teacher Education
B.A., M.A., California State University, Long Beach; Ph.D., Claremont Graduate University.

Brackens, Diedrick (2015) ............................................................... Assistant Professor
School of Art
B.A., University of North Texas; M.F.A., California College of the Arts.

Bradechich, Abigail A. (2013) ......................................................... Professor
Counseling and Psychological Services
B.A., University of Wisconsin, Madison; Psy.D., Chicago School of Professional Psychology

Brady, Margaret A. (1976) ............................................................... Professor
School of Nursing
B.S.N., Marquette University; M.S., University of Colorado; Ph.D. University of California, Los Angeles.

Brazier, Christopher R. (2001) ....................................................... Professor
Chemistry and Biochemistry
B.S., Ph.D., University of Southampton.

Bremer, Carolyn R. (2003) ............................................................... Professor
Music - Bob Cole Conservatory of Music
B.F.A., California Institute of the Arts; M.A., Ph.D., University of California, Santa Barbara.

Brevik, John (2004) ................................................................. Associate Professor
Mathematics and Statistics
B.S., Michigan State University; M.S., University of Washington; Ph.D., University of California, Berkeley.

Briggs, Roy A. (2003) ................................................................. Associate Professor
Music - Bob Cole Conservatory of Music
B.A., University of Memphis; M.A. University of Redlands, CA; Ph.D., University of California, Los Angeles.

Brocato, Jolae (2008) ................................................................. Associate Professor
School of Social Work
B.A., M.A.W., Ph.D., Florida International.

Brown, Kendahl H. (1999) ........................................................... Associate Professor
School of Art
B.A., M.A., University of California, Berkeley; Ph.D., Yale University.

Brown, Lori (2007) ................................................................. Assistant Professor
Information Systems
B.A., California State University, Long Beach; M.A., Ph.D., Northwestern University, Illinois.

Brusslan, Judith A. (1994) ............................................................. Professor
Biological Sciences
B.A., Middlebury College, Vermont; Ph.D., University of Chicago.

Bryant, Rebecca G. (2014) ............................................................ Assistant Professor
Dance
B.A., University of California, San Diego; M.F.A., University of California, Los Angeles.

Bu, Xianhui (2003) ................................................................. Professor
Chemistry and Biochemistry
B.S., Fudan University, Shanghai, P.R. China; Ph.D., State University of New York, Buffalo.

Buonora, Paul T. (2000) ................................................................. Professor
Chemistry and Biochemistry
B.S., M.S., Indiana University of Pennsylvania; Ph.D., University of Virginia.

Burnett, Raymond C. (2001) ........................................................ Professor
Journalism and Mass Communication
B.A., Ohio Wesleyan University; M.A., Ohio State University; M.A., George Washington University; Ph.D., Colorado State University.

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Public Policy and Administration
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School of Art
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Mathematics and Statistics
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Theatre Arts
B.A., University of South Florida; M.F.A., University of California, Irvine.

Campbell, Carole A. (1989) ........................................................ Professor
Sociology
B.A., University of Albuquerque; M.A., Ph.D., University of Colorado.

Campbell, Joyce M. (1988) ......................................................... Professor
Physical Therapy
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Canizales, Claudia (2007) .......................................................... Assistant Professor
Advanced Studies in Education and Counseling
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Caputi, Mary A. (1995) ............................................................... Professor
Political Science
B.A., Cornell University; M.A., Chicago; Ph.D., Cornell University.

Carbuto, Michael N. (2001) ......................................................... Chief of Medical Staff
Student Health Services
B.S., New Mexico State University; M.P.H., University of Southern California; D.O., Western University.

Cargile, Aaron C. (1996) ............................................................... Professor
Communication Studies
B.A., Ph.D. University of California, Santa Barbara; M.A., Purdue University

Carlile, Susan L. (2001) .............................................................. Professor
English
B.A., Taylor University; M.A., Ph.D., Arizona State University.

Carnahan, John A. (1990) ......................................................... Professor
Music - Bob Cole Conservatory of Music
B.S., Duquesne University, Pittsburgh; M.A., University of San Francisco.

Caron, Timothy P. (1998) ............................................................ Professor
English
B.A., Louisiana College; M.A., Ph.D., Louisiana State University.

Carreira, Maria M. (1995) ............................................................ Professor
Romance, German, Russian Languages and Literatures
B.S., Loyola University of Chicago; Ph.D., University of Illinois.

Carter, Ashley (2008) ................................................................. Associate Professor
Biological Sciences
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Division of Student Services
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Celoa, Laura (2006) ................................................................. Associate Professor
Romance, German Russian Languages and Literatures
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Celsi, Mary F. (1990) ................................................................. Professor
Marketing
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Chambers, Ruth (2006) .............................................................. Associate Professor
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Civil Engineering and Construction Engineering Management
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Chang, Chin (2007) ................................................................. Professor
Electrical Engineering
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Computer Engineering and Computer Science / Electrical Engineering
Engineering Diploma, National Technical University, Greece; M.S., Purdue; M.S., Ph.D., University of Southern California.

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Cheffer, Natalie D. (2001) .......................................................... Associate Professor
School of Nursing
B.S.N., B.H.S., California State University, Long Beach; M.N., University of California, Los Angeles.

Chen, Chien-Hui (2000) ............................................................. Associate Professor
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Chen, Hsin-Piao (1986) ................................................................. Professor  Mechanical and Aerospace Engineering  B.S., National Cheng Kung University, Taiwan; M.S., National Tsing Hua University, Taiwan; Ph.D., Georgia Institute of Technology.

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Chen, Ming (2011) ................................................................. Assistant Professor  Management and Human Resources Management  B.S., M.S., Tsinghua University, China; M.S., Ph.D., University of Maryland, College Park.

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Chen, Yutan (2007) ................................................................. Associate Professor  Economics  B.A., Renmin University, China; M.A., Ph.D., State University of New York at Stony Brook.

Chesler, Joshua D. (2009) ............................................................. Associate Professor  Mathematics and Statistics  B.S., M.S., Ph.D., University of Arizona.

Chew, Kathryn S. (2003) ............................................................ Professor  Comparative World Literature and Classics  B.A., University of California, Irvine; Ph.D., University of California, Los Angeles.

Chi, Young-Hee (1998) ............................................................... Professor  Psychology  B.A., Pusan National University, Korea; M.A., Ph.D., University of California, Irvine.

Chong, Philip S. (1986) ............................................................... Professor  Management/Human Resources Management  B.E., University of Singapore; M.S., Ph.D., University of Massachusetts, Amherst; Emeritus, 2013.


Chun, Chi-Ah (2000) ................................................................. Professor  Psychology  B.A., University of California, Berkeley; M.A., Korea University; Ph.D., University of California, Los Angeles.

Chung, Hyesoo (2014) .............................................................. Associate Professor  Accountancy  B.S., University of California, Davis; M.B.A., Ph.D., Purdue University.


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Chemistry and Biochemistry
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Philosophy
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Psychology
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Linguistics
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Finney, Stanley C. (1986) ........................................................Professor
Geological Sciences
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Forouzesh, Mohamad R. (1987) ..................................................Professor
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Forrest, Laura U. (1999) .............................................................Associate Professor
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Frates, Janice E. (1997) ............................................................Professor
Health Care Administration
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Music - Bob Cole Conservatory of Music
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Kinesiology
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Freshman, Brenda (2007) .........................................................Associate Professor
Health Care Administration
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Frey, Elaine F. (2008) .............................................................Associate Professor
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Kinesiology
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Psychology
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Gao, Tangan (1999) .................................................................Professor
Mathematics and Statistics
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Gao, Qingbin (2015) .................................................................Assistant Professor
Mechanical and Aerospace Engineering
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Gao, Qingbin (2015) .................................................................Assistant Professor
Speech-Language Pathology
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Chicano Latino Studies
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Gasior, Bonnie L. (2001) ..........................................................Professor
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Gatlin, Laurie (2010) ...............................................................Assistant Professor
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B.A.E., M.A.E., Indiana University.

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Mathematics and Statistics
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Healthcare Administration
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Political Science
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Ghafoori, Bita (2005) ..............................................................Professor
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Gharakhanian, Editte (1990) ...................................................Professor
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Gibson, J. William (1991) ........................................................Professor
Sociology
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Gilmore, Paul D. (2002) ..........................................................Professor
English
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English
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Goitom, Tesfai (1983) .............................................................. Director
Center for Excellence in Construction

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Goldstein, Cora S. (2002) .......................................................... Professor
Political Science
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Goldstein, Lisa M. (1989) ............................................................ Professor
English

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Kinesiology
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Gonzalez, Araceli (2014) ............................................................ Assistant Professor
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Grenot-Scheyer, Marquita (1988) ................................................ Dean
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College of Education

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Gunatilake, Sarath (1987) ......................................................... Professor
Health Science
B.S., Medicine and Surgery, University of Colombo, Sri Lanka; M.P.H., D.P.H., University of Hawaii, Manoa.

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Finance
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Haas, Liesl (2001) ................................................................. Professor
Political Science
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Holik, Gregory (2000) ...................................................... Associate Professor
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B.S., Arizona State University; M.S., Ph.D., California Institute of Technology.

Homer, Pamela M. (1991) ................................................... Professor
Marketing
B.A., Michigan State University; M.A., B.A., University of Colorado, Boulder; Ph.D.; University of Oregon.

Hong, Jin Gi (2015) ........................................................... Assistant Professor
Civil Engineering and Construction Engineering Management
B.S., Hong-Ik University, Korea; M.S., Cornell University; Ph.D., Georgia Institute of Technology, Atlanta.

Hood, David C. (1966) .......................................................... Professor
History
B.A., University of California, Santa Barbara; Ph.D., University of Southern California.

Hotchkiss, Wilhelmina L. (1990) ............................................. Associate Professor
English
B.A., California State University, Fullerton; Ph.D., University of California, Los Angeles.

Hou, Jack W. (1989) .......................................................... Professor
Economics
B.A., National Taiwan University; M.A., Ph.D., Yale University.

Hovind, Tor A. (1995) ......................................................... Professor
School of Art
B.F.A., California State University, Long Beach; M.F.A., Syracuse University.

Howell, Jayne (1994) .......................................................... Professor
Anthropology
B.A., State University of New York, Geneseo; M.A., Ph.D., State University of New York, Stony Brook.

Heieh, Betina Y. (2012) ..................................................... Assistant Professor
Teacher Education
B.A., M.A., Ph.D., University of California, Berkeley.

Hu, Helen Chau (1994) ..................................................... Professor
English
B.A., Berea College, KY; M.A., University of Wisconsin; Ph.D., University of London.

Huang, Xuan (2011) .......................................................... Assistant Professor
Accountancy
B.A., Soochow University, China; MA, University of Wisconsin, Milwaukee; Ph.D., University of California, Irvine.

Hubbard, Larese (2005) .................................................... Associate Professor
African Studies
B.S., M.S., California State University, Los Angeles; M.A., Ph.D., Temple University, Pennsylvania.

Huckabay, Louise (1964) .................................................... Professor
School of Nursing
B.S., M.S., Ph.D., University of California, Los Angeles.

Huckabay, David G. (1973) .................................................. Associate Professor
Biological Sciences

Hughes, Edward J. (1990) .................................................... Associate Professor
Religious Studies

Hultgren, Neil (2007) ....................................................... Associate Professor
English
B.A., Augustana College, Illinois; M.A., Ph.D., University of Virginia.

Hung, Pei-Fang (2013) ...................................................... Assistant Professor
Communicative Disorders
B.S., Chung Shan Medical University, Taiwan; M.S., Ph.D., University of Oregon.

Hytrek, Gary (2002) .......................................................... Professor
Sociology
B.A., California State University, Bakersfield, M.A., Ph.D., University of California, Los Angeles.

Igmen, Ali (2006) .............................................................. Associate Professor
History
B.A., Uludag University, Turkey; M.A., Ph.D., University of Pittsburgh.

Ireland, Connie M. S. (2003) ................................................ Professor
School of Criminology, Criminal Justice, and Emergency Management
B.A., M.A., Ph.D., University of California, Irvine.

Jacques, David Martin (1998) ............................................. Professor
Theatre Arts
B.F.A., University of Miami; M.F.A., Southern Methodist University.

Jadalla, Ahlam A. (2008) ...................................................... Associate Professor
School of Nursing
B.S.N., University of Jordan, Amman; M.S.N., Georgetown University; Ph.D., Loma Linda University.

Jaffe, Alexandra M. (2001) .................................................. Professor
Linguistics / Anthropology
B.A., University of Delaware; M.A., Indiana University Bloomington.

Jakumar, Prashanth (2009) ................................................ Associate Professor
Physics and Astronomy
B.S., Delhi University, India; M.S., Indian Institute of Technology, India; Ph.D., Stony Brook University.

Jang, Long-Kuan (1984) ...................................................... Professor
Chemical Engineering
B.S., M.S., National Taiwan University; Ph.D., University of Southern California.

Janousek, Kelly S. (1988) ..................................................... Librarian
B.A., Western Michigan University; M.L.S., University of Pittsburgh.

Jarvis, Jeffrey (2005) .......................................................... Associate Professor
Music - Bob Cole Conservatory of Music
B.A., Bucknell University; M.A., University of Michigan; Ph.D.; Stanford University.

Jennings, Lisa K. (2009) ..................................................... Associate Professor
School of Social Work
B.A., Faulkner University; M.S.W., Ph.D., University of Alabama.

Jersey, Brian (2016) ........................................................ Academic Affairs
Provost and Senior Vice President

Jeynes, William H. (2001) .............................................. Professor
Teacher Education
B.A., University of Wisconsin, Madison; M.Ed., Harvard University; Ph.D., University of Chicago.

2016-2017 CSULB Catalog • Faculty and Administration • 915
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<tr>
<th>Name</th>
<th>Title</th>
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<td>Ji, Hongyu (1999)</td>
<td>Professor</td>
<td>School of Art</td>
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<td>B.A., Central Academy of Fine Arts, Beijing, China; M.F.A., State University of New York, New Paltz</td>
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<td>Jocoy, Christine (2004)</td>
<td>Associate Professor</td>
<td>Geography</td>
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<td>B.A., Vassar College, NY; M.S., Ph.D., Pennsylvania State University</td>
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<td>Johnson, Ann M. (2003)</td>
<td>Associate Professor</td>
<td>Communication Studies</td>
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<td>B.S., University of Utah; M.A., University of New Mexico; Ph.D., University of Massachusetts</td>
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<td>Johnson, Darren (2013)</td>
<td>Assistant Professor</td>
<td>Biological Sciences</td>
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<td>B.S., University of Victoria, Canada; M.A., University of California, Santa Cruz; Ph.D., Oregon State University</td>
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<td>Johnson, Keith R. (1997)</td>
<td>Professor</td>
<td>Dance</td>
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<td>B.S., Brigham Young University; M.F.A., University of Utah</td>
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<td>Johnson, Lorin (2005)</td>
<td>Associate Professor</td>
<td>Counseling and Psychological Services</td>
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<td>B.A., Missouri Southern State College; M.S., University of Kansas; Ed.D, Indiana University, Bloomington</td>
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<td>B.A., Yale University; B.A., M.A., Oxford University; Dr.Theology, Universitaet Goettingen, Federal Republic of Germany</td>
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<td>Joshee, Jeet (2008)</td>
<td>Dean</td>
<td>College of Continuing and Professional Education</td>
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<td>Ed.D., University of Massachusetts, Amherst</td>
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<td>Kaminsky, Arnold P. (1986)</td>
<td>Professor</td>
<td>Asian and American Studies/History</td>
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<td>B.A., M.A., Ph.D., University of California, Los Angeles. Emeritus, 2013</td>
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<td>Marketing</td>
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<td>Karadjov, Christopher (2005)</td>
<td>Associate Professor</td>
<td>Journalism and Mass Communication</td>
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<td>M.A., Sofia University, Bulgaria; Ph.D., University of Florida</td>
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<td>Karenga, Maulana N. (1989)</td>
<td>Professor</td>
<td>Africana Studies</td>
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<td>B.A., University of California, Los Angeles; Ph.D., United States International University; Ph.D., University of Southern California</td>
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<td>Professor</td>
<td>Communication Studies</td>
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<td>B.S., Illinois State University; M.A., University of Oklahoma, Norman; Ed.D, West Virginia University, Emerita, 2013</td>
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<td>Keely, Beth R. (1995)</td>
<td>Professor</td>
<td>School of Nursing</td>
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<td>Kelleher, Marie A. (2003)</td>
<td>Professor</td>
<td>History</td>
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<td>B.A., Lewis and Clark College, Portland; M.A., Ph.D., University of Kansas</td>
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<td>Director</td>
<td>Student Transition and Retention Services</td>
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<td>Geological Sciences/Science Education</td>
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<td>Kermode, Lloyd E. (2000)</td>
<td>Professor</td>
<td>English</td>
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<td>B.A., Sheffield University, Sheffield, England; M.Phil., Shakespeare Institute, University of Birmingham, England; M.A., Johns Hopkins University; Ph.D., Rice University</td>
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<td>B.S.N., Jordan University of Science and Technology, Irbid; M.S.N., Al-Quds University, Israel; Ph.D., University of San Diego</td>
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<td>Khatra, Balwant S. (1987)</td>
<td>Professor</td>
<td>Biological Sciences</td>
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<td>B.V.Sc., Veterinary College, Hisar, India; B.S., M.S., Punjab University, India Ph.D., University of Leeds, England. Emeritus, 2013</td>
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<td>Asian and American Studies/History</td>
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<td>Kim, Eun Heul (2001)</td>
<td>Professor</td>
<td>Mathematics and Statistics</td>
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<td>Civil Engineering and Construction Engineering Management</td>
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<td>Economics</td>
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<td>School of Social Work</td>
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<td>B.A., M.S., Virginia Polytechnic Institute and State University</td>
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<td>Kim, Yong Hoe (1998)</td>
<td>Professor</td>
<td>Mathematics and Statistics</td>
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<td>B.A., Inha University, Korea; M.S., Western Illinois University; Ph.D., University of California, Davis</td>
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<td>Kingsford, Laura (1980)</td>
<td>Dean</td>
<td>College of Natural Sciences and Mathematics</td>
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<td>B.S., B.S., Boise State University; Ph.D., University of Utah</td>
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<td>Kisiel, James F. (2003)</td>
<td>Professor</td>
<td>Science Education</td>
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<td>B.S., Case Western Reserve University, Ohio; M.S., University of California, Los Angeles; Ph.D., University of Southern California</td>
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<td>Klaus, Jeffrey J. (1997)</td>
<td>Associate Vice President</td>
<td>Biological Sciences</td>
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<td>B.S., Case Western Reserve University, Ohio; M.S., University of California, Los Angeles; Ph.D., University of Southern California</td>
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<td>Klein, Alexander M. (2009)</td>
<td>Associate Professor</td>
<td>Philosophy</td>
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<td>B.A., Westminster College; M.A., Ph.D., University of Kentucky; Ph.D., University of Southern California</td>
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<td>Kim, Simon S. (2000)</td>
<td>Interim Associate Vice President</td>
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<td>B.A., Boise State University; Idaho; M.P.A., California State University, Long Beach</td>
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<td>Klein, Alexander M. (2009)</td>
<td>Associate Professor</td>
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Klein, Kenji L. (2014) ................................................................. Assistant Professor
Management and Human Resource Management
B.A., Pomona College, Claremont; M.A., University of Hawaii, Manoa; M.B.A., Ph.D., University of California, Irvine.

Klein, Wendy L. (2009) ......................................................... Associate Professor
Linguistics/Anthropology
B.A., Middlebury College; M.A., Stanford University; Ph.D., University of California, Los Angeles.

Kleinfield, Karen L. (1993) .................................................. Professor
School of Art
B.A., M.A., Ph.D., University of Michigan.

Kleinfelder, Christine B. (1999) ........................................... Professor
School of Social Work
B.A., University of California, Irvine; M.S.W., University of Southern California; Psy.D., Pepperdine University.

Kleinfeld, John (2009) .......................................................... Associate Professor
Design
B.A., Louisiana Tech University; M.F.A., California State University, Fullerton.

Klig, Lisa S. (1990) .............................................................. Professor
Biological Sciences
B.A., University of Massachusetts, Amherst; M.S., Oberlin College; Ph.D., Albert Einstein College of Medicine.

Klink, Eileen S. (1990) .......................................................... Professor
English
B.A., University of California, Los Angeles; M.A., California State University, Long Beach; Ph.D., University of Southern California.

Ko, Yu-Fu (2009) ................................................................. Associate Professor
Civil Engineering and Construction Engineering Management
B.S., National Taipei University of Technology, Taiwan; M.S., Ph.D., University of California, Los Angeles.

Kochan, Roman V. (1969) ..................................................... Dean
Library Services
B.A., M.A., University of Manitoba; M.L.S., University of British Columbia.

Korogodsky, Danila Z. (1996) .............................................. Associate Professor
Theatre Arts
M.F.A., Leningrad Institute of Theatre; Emeritus 2014.

Korosteleva, Olga (2002) ....................................................... Professor
Mathematics and Statistics
B.S., Wayne State University, Detroit; M.S., Purdue University.

Koval, James E. (1985) ....................................................... Interim Dean
College of Health and Human Services

Koval, John E. (2014) .......................................................... Dean
Library Services
B.A., University of Massachusetts, Amherst; M.S., Oberlin College; Ph.D., Albert Einstein College of Medicine.

Kress, Jeffrey L. (2001) ......................................................... Associate Professor
Kinesiology
B.S., M.S., California State University, Fullerton; Ph.D., University of Kansas.

Kreyas, Peter G. (2002) ......................................................... Associate Professor
Family and Consumer Sciences
B.S., M.A., University of Maryland, College Park; Ph.D., University of Southern California.

Krishnan, Sudha (2007) ....................................................... Professor
Accountancy
B.Com., M.Com., Bombay University, India; Ph.D., University of Southern California.

Krishnan, Venkatesan (2013) .............................................. Associate Professor
Physical Therapy
SPT, Pondicherry University, India; MIT, Manipal University, India; Ph.D., University of Delaware.

Krupp, Thomas J. (1986) ...................................................... Professor
School of Art
B.F.A., San Francisco Art Institute; M.F.A., California State University, Long Beach.

Kukalis, Sal M. (2000) ......................................................... Professor
School of Art
B.F.A., San Francisco Art Institute; M.F.A., California State University, Long Beach.

Kumar, Rajendra (1983) ...................................................... Professor
Electrical Engineering

Kumrow, David E. (2000) ................................................. Associate Professor
Bioengineering
B.S., Gannon University; Pennsylvania; B.S.N., Niagara University, New York; M.S.N., State University of New York, Buffalo; Ed.D., University of Southern California.

Kuo, Margaret (2007) ......................................................... Associate Professor
History
B.A., M.A., Ph.D., University of California, Los Angeles; J.D., Georgetown University, Washington, D.C.

Kwon, Chuhhee (1999) ......................................................... Professor
Physics and Astronomy
B.S., Seoul National University; Korea; M.S., Pohang Institute of Science and Technology, Korea; Ph.D., University of Maryland, College Park.

Lacey, John M. (1989) ......................................................... Professor
Accountancy
B.S., M.B.A., University of Southern California; Ph.D., University of California, Los Angeles.

Lacey, Kathleen A. (2000) ................................................. Professor
College of Business Administration
B.A., San Diego State University; M.B.A., J.D., University of Southern California.

Lam, Brian T. (2003) ......................................................... Professor
School of Social Work
B.A., California State University, Fullerton; M.S.W., California State University, Long Beach; Ph.D., Columbia University, New York.

Lam, Shui F. (1985) .......................................................... Professor
Computer Engineering and Computer Science
B.S., Chinese University of Hong Kong; M.S., Ph.D., Pennsylvania State University.

Landon, Lora R. (2005) ....................................................... Associate Professor
Geological Sciences
B.A., Pomona College, Claremont, CA; Ph.D., University of Minnesota, Twin Cities.

Lanza, Haydee Isabelia (2014) ........................................... Assistant Professor
Human Development
B.A., Williams College; M.A., Pepperdine University; Ph.D., Temple University.

Lars, Paul S. (2002) ......................................................... Professor
Geography
B.S., University of California, Los Angeles; M.S., San Jose State University; M.A., Ph.D., Clark University, Massachusetts.

Lascano, Marcy (2006) ..................................................... Associate Professor
Philosophy
B.A., University of Washington; M.A., Ph.D., University of Massachusetts, Amherst.

Lax, Melvin (1977) .......................................................... Professor
Mathematics and Statistics
B.S., M.S., Ph.D., Rensselaer Polytechnic Institute.

Le, Son V. (1986) .............................................................. Professor
Finance
B.S., M.S., Ph.D., Iowa State University.

LeBank, Ezra (2011) .......................................................... Assistant Professor
Theatre Arts
B.A., State University of New York; M.F.A., Smith College, Massachusetts.

Lee, Cheryl D. (2000) ....................................................... Professor
School of Social Work
B.A., George Washington University; M.S.W., Arizona State University; Ph.D., Arizona State University.

Lee, Chia-Hsuei (Sophie) (1998) ........................................... Professor
Information Systems
B.S., National Chiao-Tung University, Taiwan; M.B.A., Ph.D., University of Texas, Austin.

Lee, Christopher T. (2000) .............................................. Professor
Geography
B.S., Northern Arizona State University, Flagstaff; M.A., California State University, Fullerton; Ph.D., University of Arizona.

Lee, Chung-min (2007) ....................................................... Associate Professor
Mathematics and Statistics
B.S., M.S., National Taiwan University; Ph.D., Indiana University.

Lee, Diane W. (1999) ......................................................... Professor
Psychology
B.A., California State University, Long Beach; Ph.D., University of California, Berkeley.

Lee-Fruman, Kay K. (1999) ............................................... Professor
Biological Sciences
B.A., University of California, Berkeley; Ph.D., Harvard University.

LeMaster, Barbara C. (1997) .............................................. Professor
Anthropology/Linguistics
B.A., University of California, Berkeley; M.A., Ph.D., University of California, Los Angeles.

Lemme, Rebecca K. (2014) .............................................. Assistant Professor
Dance
B.A., Princeton University; M.F.A., California Institute of the Arts.

Lewis, Trinidad J. (2003) .................................................. Associate Professor
Teacher Education
B.A., University of California, Los Angeles; M.Ed., Bridgewater State College, MA; Ed.D., Boston University.

Li, Guotong (2007) .......................................................... Associate Professor
History
B.A., Peking University, China; M.A., National University of Singapore; Ph.D., University of California, Davis.

Li, Lijuan (1998) ............................................................ Professor
Chemistry and Biochemistry
B.Sc., Jilin University, P.R. China; Ms.Sc./Ph.D., Jilin University, P.R. China; Ph.D., McMaster University, Ontario, Canada.
Li, Linna (2013) ..................................................Assistant Professor
Geography
B.S., Peking University, China; M.S., University of South Carolina; Ph.D., University of California, Santa Barbara.

Li, Xin (2001) .................................................. Professor
Teacher Education
B.A., Southwest China Teacher's University; M.A., Ph.D., University of Toronto.

Li, Xuhui (2007) .................................................. Associate Professor
Mathematics and Statistics
B.S, M.S., East China Normal University; Ph.D., University of Texas, Austin.

Li, Yan (2014) .................................................. Assistant Professor
Mechanical and Aerospace Engineering
B.S.M.E., Yanshan University, China; M.S., Shanghai Jiao Tong University, China; Ph.D., Georgia Institute of Technology, Atlanta.

Lin, Ping (2006) .................................................. Associate Professor
Accountancy
B.S., Beijing Institute of Technology; M.S., Central University of Banking and Finance; Ph.D., University of California, Irvine.

Lindsay, Cecile (2004) ............................................ Vice Provost and Dean of Graduate Studies
Academic Affairs

Romance, German, Russian Languages and Literatures
B.A., California State University, Fullerton; M.A., Ph.D., University of California, Irvine.

Lipo, Carl P. (2002) .................................................. Professor
Anthropology
B.S., M.A., University of Wisconsin, Madison; Ph.D., University of Washington, Seattle.

Liu, Ping (1999) .................................................. Professor
Teacher Education
B.A., Guangzhou Teachers University, China; M.A., University of International Relations, China; Ph.D., Texas A&M University.

Liu, XueMei (2003) .................................................. Professor
Economics
B.A., Central University of Finance and Banking, Beijing; M.A., California State University, Long Beach; Ph.D., University of California, Berkeley.

Liu, Ying (2007) .................................................. Associate Professor
Information Systems
B.S., Xi'an Jiaotong University, China; M.S., South China University of Technology; M.S., University of Southern California, Ph.D., University of Arizona.

Livingston, Brian T. (2000) .................................. Professor
Biological Sciences
B.S., University of California, Santa Barbara; Ph.D., University of California, Berkeley.

Lo, Chih-Cheng (2009) ........................................... Associate Professor
Chemical Engineering
B.S., National Chung Hsing University, Taiwan; M.E., Ph.D., Texas A&M University.

Locks, Angela M. (2008) ...................................... Associate Professor
Advanced Studies in Education and Counseling
B.A., M.A., Ph.D., University of Michigan, Ann Arbor.

Loewe, Ronald (2006) ........................................... Professor
Anthropology
B.A., Earlham College; M.A., University of Illinois, Chicago; Ph.D., University of Chicago.

Lopez, Dennis (2011) ........................................... Assistant Professor
English
B.A., California State University, Fullerton; M.A., California State University, Northridge; Ph.D., University of California, Irvine.

Lopez, Kristina (2013) ........................................... Assistant Professor
Social Work
B.A., M.A., California State University, Northridge; MSW, Ph.D., University of Michigan.

Lopez, Marco A. (1987) ........................................ Professor
Chemistry and Biochemistry
B.S., California State University, Los Angeles; M.S., Ph.D., University of California, San Diego.

Lopez-Zetina, Javier (2000) ................................... Associate Professor
Health Sciences
B.A., University of Veracruz, Mexico; M.A., University of Houston; Ph.D., University of Texas, Houston.

Losquadro, Michael (2006) ................................. Associate Vice President
Development and Campaign Operations
B.A., California State University, Fullerton.

Lowe, Christopher G. (1998) ............................. Professor
Biological Sciences
B.A., Barrington College; M.S., California State University, Long Beach; Ph.D., University of Hawaii, Manoa.

Lowenfrost, Peter M. (1984) .............................. Professor
Religious Studies
B.A., University of California, Riverside; Ph.D., University of Southern California.

Lu, Bei (2005) .................................................. Associate Professor
Mechanical and Aerospace Engineering
B.S., M.S., Shanghai Jiaotong University, China; Ph.D., North Carolina State University.

Luevano, Susan C. (1995) ................................. Librarian
University Library
B.A., California State College, Stanislaus; M.L.S., University of Oregon.

Luehr, Eileen (2006) .......................................... Associate Professor
History
B.A., M.A., Williams College; Ph.D., University of California, Irvine.

Ma, Yulong (1997) ........................................... Professor
Finance
B.S., Xi'an University of Electronic Science and Technology, China; M.B.A., University of Hawaii; Ph.D., University of Houston.

Macaulay, Craig D. (2014) ............................... Assistant Professor
Management and Human Resource Management
B.S., Ph.D., University of Texas, Dallas.

Madding, Carolyn Conway (1989) ..................... Professor
Communicative Disorders
B.S., Ohio State University; M.A., California State University, Fullerton; Ph.D., Claremont Graduate University.

Mahoney, Charles (2013) ............................... Assistant Professor
Political Science
B.A., Williams College; M.A., Ph.D., University of California, Los Angeles.

Malizia, Thomas W. (2005) .............................. Director
Office of Student Conducted & Ethical Development
B.A., California State University, Long Beach; J.D., Western State University, College of Law.

Malm, Alli (2006) ............................................ Associate Professor
School of Criminology, Criminal Justice, and Emergency Management
B.A., M.A., Ph.D., Simon Fraser University, Canada.

Malotte, C. Kevin (1999) ................................. Professor
Health Science
B.A., Chapman College; M.A., Claremont Graduate School; P.H., University of California, Los Angeles. Emeritus 2014.

Mangir, Tulin E. (1994) ................................. Assistant Professor
Electrical Engineering
B.S., University of Southern California; B.S., University of California, Los Angeles. Emerita, 2013.

Manke, Beth (2002) ........................................... Professor
Human Development
B.S., University of Arizona; M.S., Pennsylvania State University.

Manley, Steven L. (1988) ................................. Professor
Biological Sciences
B.A., California State University, Northridge; Ph.D., University of California, Los Angeles.

Mao, Yuping (2015) ......................................... Assistant Professor
Communication Studies
B.A., Nankai University, China; M.A., Bowling Green State University; Ph.D., Ohio University.

Maples, Tracy B. (1992) ................................. Interim Associate Dean of Academic Programs
College of Engineering

Marcus, Richard (2006) ................................. Professor
International Studies
B.A., New York University; M.A., University of California, Los Angeles; Ph.D., University of Florida.

Markos, Rhonda (1976) ................................. Director
Isabel Patterson Child Development Center
B.A., California State University, Long Beach.

Marroquin, Panadda (2007) ........................... Associate Professor
Mechanical and Aerospace Engineering
B.S., Florida Institute of Technology; M.S., Ph.D., Johns Hopkins University.

Marx, Richard (2006) ........................................ Professor
Biological Sciences
B.A., University of California, Riverside; Ph.D., University of California, Irvine.

Maram, Linda N. (1997) ................................. Professor
Asian and Asian American Studies
B.A., M.A., California State University, Fullerton; M.A., Ph.D., University of California, Los Angeles.

Marayong, Panadda (2007) ........................... Associate Professor
Mechanical and Aerospace Engineering
B.S., Florida Institute of Technology; M.S., Ph.D., Johns Hopkins University.

Marcus, Richard (2006) ................................. Professor
International Studies
B.A., New York University; M.A., University of California, Los Angeles; Ph.D., University of Florida.

Markos, Rhonda (1976) ................................. Director
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Marroquin, Panadda (2007) ........................... Associate Professor
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Martin, Claire E. (1988) ................................. Professor
Romance, German, Russian Languages and Literatures
B.A., M.A., University of Massachusetts, Amherst; Ph.D., Yale University.
Martin, Edward (2005) ................................................................. Professor
Public Policy and Administration
B.A., Loyola Marymount University; M.A., University of San Francisco; Ph.D., Arizona State University.

Martin, Ingrid M. (2001) ................................................................. Professor
Marketing
B.S., University of New Mexico; M.S., Michigan State University; Ph.D., University of Southern California.

Martin, Nancy (2007) ................................................................. Associate Professor
Sociology
B.S., Cornell University; M.A., University of Nevada, Las Vegas; Ph.D., University of Arizona.

Martin, Wade E. (2002) ................................................................. Professor
Economics
B.S., Southern Oregon State College; Ph.D., University of New Mexico, Albuquerque.

Martin-Hansen, Lisa (2013) ................................................................. Professor
Science Education
B.A., University of Northern Iowa; M.S., Ph.D., University of Iowa.

Martinez, Corinne (2006) ................................................................. Associate Professor
Teacher Education
B.A., M.A., Ph.D., University of California, Los Angeles.

Martinez, Larry F. (1989) ................................................................. Professor
Political Science
B.A., M.A., Ph.D., University of California, Santa Barbara.

Masunaga, Hiromi (2002) ................................................................. Professor
Advanced Studies in Education and Counseling
B.A., Saitama University, Japan; M.S., Ph.D., University of Southern California.

Maxfield, Lisa M. (1995) ................................................................. Professor
Psychology
B.S., M.S., Ph.D., Syracuse University.

Mayfield, Tracey L. (1999) ................................................................. Associate Dean
University Library
B.A., M.L.I.S., University of California, Los Angeles.

McAbee, Douglas (1997) ................................................................. Professor
Chemistry and Biochemistry
B.A., Point Loma College; Ph.D., University of Texas Southwestern Medical School.

McCroskey, Lynda L. (1999) ................................................................. Associate Professor
Communication Studies
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McDaniel, Dana M. (2011) ................................................................. Assistant Professor
Management and Human Resources Management
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McGuire, Anthony W. (2011) ................................................................. Assistant Professor
School of Nursing
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McKay, Valerie C. (1988) ................................................................. Professor
Communication Studies
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Mccicken, Betty (2006) ................................................................. Associate Professor
Communicative Disorders
B.A., M.A., Ph.D., University of Southern California.

McPherson, Mary Beth (2001) ................................................................. Associate Professor
Communication Studies
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Mendez, Sergio (2009) ................................................................. Professor
Chemical Engineering
B.S., University of California, Berkeley; Ph.D., University of New Mexico.

Medoff, Marshall H. (1979) ................................................................. Professor
Economics
B.S., Illinois Institute of Technology; M.S., University of Illinois, Champaign; Ph.D., University of California, Berkeley. Emeritus, 2011.

Medora, Nilufar P. (1989) ................................................................. Professor
Family and Consumer Sciences
B.A., St. Xavier’s College, India; M.S., Maharaja Sayajirao University, India; M.S., University of Arkansas; Ph.D., University of Nebraska.

Men, Robert A. (1988) ................................................................. Professor
Mathematics and Statistics
B.S., M.S., Ph.D., University of Houston.

Merryfield, Kent G. (1988) ................................................................. Professor
Mathematics and Statistics
B.A., Rice University; M.S., Ph.D., University of Chicago.

Meyer-Adams, Nancy (2005) ................................................................. Associate Professor
School of Social Work
B.S.W., M.S.W., Florida International University, Miami; Ph.D., University of Tennessee.

Mezey, Stephen P. (2001) ................................................................. Professor
Chemistry and Biochemistry
B.Sc., Ph.D., University of Melbourne.

Michelon, Mark (2006) ................................................................. Associate Professor
School of Art
B.A., M.A., California State University, Long Beach.

Miles, Christopher N. (2003) ................................................................. Professor
School of Art
B.A., University of California, Santa Barbara; M.F.A., University of Southern California.

Miles, James D. (2011) ................................................................. Assistant Professor
Psychology
B.A., M.A., Ph.D., University of Virginia, Charlottesville.

Miller, Christopher (2013) ................................................................. Assistant Professor
Art
BFA, Pennsylvania State University; MFA, School of the Art Institute of Chicago.

Min, Sungwook (2001) ................................................................. Professor
Marketing
B.B.A., Korea University; M.B.A., Korea University; Ph.D., Purdue University.

Minae, Babak (2013) ................................................................. Professor
Mechanical and Aerospace Engineering
B.S., Sharif University of Technology, Iran; M.S., Iowa State University; Ph.D., University of Minnesota, Minneapolis.

Mintz, Aubry (2007) ................................................................. Professor
School of Art
Technical Degree, Sheridan College Institute of Technology, Ontario, Canada.

Mitchell, Deborah, H. (1994) ................................................................. Professor
Music - Bob Cole Conservatory of Music

Mitchell-Smith, Iban (2009) ................................................................. Associate Professor
English
B.A., University of California, Davis; M.A., Fordham University; Ph.D., Texas A&M University.

Miyoshi, Kimiko (2005) ................................................................. Associate Professor
School of Art
B.A., California State University, Long Beach; MFA, University of New Mexico.

Mizelle, D. Brett (2001) ................................................................. Professor
History
B.A., Georgetown University; M.A., Ph.D., University of Minnesota.

Mohamed, Olfat S. (1998) ................................................................. Professor
Physical Therapy
B.A., M.S., Cairo University; Ph.D., University of Southern California.

Mohr, William (2006) ................................................................. Associate Professor
English
B.A., University of California, Los Angeles; M.A., Ph.D., University of California, San Diego.

Moisés, Risto (2007) ................................................................. Associate Professor
Marketing
B.A., Satakunta Polytechnic, Finland; M.S., University of Southern Denmark; Ph.D., University of Nebraska.

Moldor, Christian E. (2011) ................................................................. Professor
School of Social Work
B.A., University of Dallas, Irving; M.S.W., Loyola University, Chicago; Ph.D., University of Illinois, Chicago.

Monge, Alvaro E. (1999) ................................................................. Professor
Computer Engineering and Computer Science
B.S., University of California, Riverside; M.S., Ph.D., University of California, San Diego.

Moon, Hojin (2007) ................................................................. Professor
Mathematics and Statistics
B.S., M.S., HanYang University, Korea; M.S., Florida Institute of Technology; Ph.D., State University of New York, Stony Brook.

Moore, William S. (2000) ................................................................. Associate Professor
Graduate Center for Public Policy and Administration
B.A., Washington and Jefferson College; M.P.A., University of Pittsburgh; M.A., Ph.D., Syracuse University.

Moreno, Jose F. (2004) ................................................................. Associate Professor
Chicano and Latino Studies
B.A., University of California, Irvine; M.Ed., Ed.D., Harvard University.

Moreno-Alcaraz, Rosa O. (1998) ................................................................. Psychologist
Counseling and Psychological Services
B.A., Loyola Marymount University; M.A., Ph.D., California School of Professional Psychology.

Morales-Ponce, Oscar (2015) ................................................................. Assistant Professor
Computer Engineering and Computer Science
B.S., M.S., National Autonomous University of Mexico; Ph.D., Carleton University, Canada.

Moshier, Jerry (2006) ................................................................. Associate Professor
Film and Electronic Arts
B.A., M.A., Ph.D., University of California, Los Angeles.

Moshtivarz, Khosrow (1990) ................................................................. Professor
Information Systems
B.S., Arya Mehr Technical University, Iran; M.S., Stanford University; Ph.D., University of California, Los Angeles.
Mozumdar, Mohammad M. (2012)  ............................................ Assistant Professor
Electrical Engineering
B.Sc., Bangladesh University of Engineering and Technology; M.Sc., Aeheim Technical
University, Germany; Ph.D., Politehnica University of Turin, Italy.

Mueller-Stoch, Johannes (2007)  ............................................ Associate Professor
Music - Bob Cole Conservatory of Music
B.M., Columbus State University; M.M., University of Cincinnati; DMA, University of
Rochester.

 Mueller, Markus E. (2001)  .................................................. Associate Professor
Romanic, German, Russian Languages and Literatures
B.A., University of Tübingen; M.A., University of Kansas; Ph.D., University of California,
Los Angeles.

Mun, Jung Mee (2015)  ....................................................... Assistant Professor
Family and Consumer Sciences
B.A., Catholic University of Korea; M.A., EWHA Woman's University, Korea; Ph.D.,
University of Minnesota, Minneapolis.

Murdock, Caitlin E. (2003)  .................................................... Professor
History
B.A., Swarthmore College, PA; M.A., Emory University; Ph.D., Stanford University.

Murgolo, Frank D. (2003)  ..................................................... Professor
Computer Engineering and Computer Science
B.A., California State University, Fullerton; M.S., Ph.D., University of California, Irvine.

Murray, John (2007)  ............................................................ Professor
Advanced Studies in Education and Counseling
B.A., State University of New York, Brockport; M.A., Arizona State University; Ed.S.,
Wright State University; Ph.D., Ohio State University.

Murray, William L. (2001)  .................................................... Professor
Mathematics and Statistics
B.S., Georgetown University; Ph.D., University of California, Berkeley.

Nagai, Chikako (2007)  .......................................................... Associate Professor
School of Social Work
B.A., Seattle Pacific University; M.S.W., University of Washington; Ph.D., Smith College.

Nakai, Karen Kawai (1999)  .................................................... Executive Assistant to the President
Office of the President

Nakagawa, Kazuki (2009)  ....................................................... Professor
Kinesiology
B.S., International Christian University, Tokyo; M.S., California State University, Long
Beach; Ed.D., University of Southern California.

Nakayama, Kansaku (1987)  .................................................... Professor
Chemistry and Biochemistry
B.S., Ph.D., University of California, Los Angeles.

Narayanaswami, Vasanth (2008)  .......................................... Associate Professor
Chemistry and Biochemistry
B.S., University of Madras, India; M.S., University of Mysore, India; Ph.D., Indian Institute of
Technology.

Nash, Rebecca (2013)  .......................................................... Assistant Professor
Criminal Justice
B.S., California State University, Los Angeles; M.S., California State University, Long
Beach; Ph.D., Simon Fraser University, British Columbia.

Nasar, Elhami B. (2002)  ....................................................... Professor
Civil Engineering and Construction Engineering Management
B.S., M.S., California State University, Long Beach; Ph.D., University of Colorado.

Nayak, Aparna (2006)  .......................................................... Associate Professor
Romance, German, Russian Languages and Literatures
B.A., University of Bombay, India; M.A., Ph.D., University of Pittsburgh.

Nazari, Masoud (2015)  .......................................................... Assistant Professor
Electrical Engineering
B.S., K.N. Toosi University of Technology, Iran; M.S., Ph.D., Carnegie Mellon University.

Neff, Hector (2002)  ............................................................. Professor
Anthropology
B.A., Stanford University; M.A., Ph.D., University of California, Santa Barbara.

Nelms, Barbara J. (1974)  ....................................................... Professor
School of Nursing
B.S.N., University of Iowa; M.N., Ph.D., University of California, Los Angeles.
B.A., Rutgers University, M.S., Ph.D., University of Miami. Emerita, 2012.

Newberger, Florence A. (2001)  ........................................... Professor
Mathematics and Statistics
B.A., B.S., University of California, Santa Cruz; Ph.D., University of Maryland, College
Park.

Ng, Chen Feng (2008)  ......................................................... Associate Professor
Economics
B.A., Princeton University; M.A., Ph.D., University of California, Irvine.

Nguyen, Hieu (2007)  ............................................................ Associate Professor
Marketing
B.A., Hanoi Foreign Studies University, Vietnam; M.A., Texas Christian University; Ph.D.,
University of Texas at Arlington.

Nguyen, Huong Tran (2005)  ............................................... Associate Professor
Teacher Education
B.A., San Diego State University; M.A., Point Loma University; Ph.D., University of California,
Riverside.

Nguyen, T. Hung (2006)  ...................................................... Associate Professor
Civil Engineering and Construction Engineering Management
B.S., M.S., Concordia University, Canada; Ph.D., Pennsylvania State University.

Nguyen, Thang N. (1999)  ..................................................... Associate Professor
Information Systems
B.S., Laval University, Quebec; M.S., Georgia Institute of Technology; Ph.D., George Mason University.

Nguyen, Thu-Duc An (2008)  .............................................. Assistant Professor
Marketing
B.E., Ho Chi Minh University, M.B.A., Asian Institute of Technology, Thailand; Ph.D.,
University of Utah.

Nguyen-Rodriguez, Selena Thi (2012)  ................................... Assistant Professor
Health Science
B.A., California State University, Long Beach; M.P.H., Ph.D., University of Southern California.

Noble, Charles (1987)  ....................................................... Professor
Political Science
B.A., Cornell University; M.A., University of California, Los Angeles; Ph.D., University of California,

Ngouema, Norma A. (2001)  .............................................. Associate Professor
Mathematics and Statistics
B.A., Universidad Nacional, Heredia; M.Ed., Ph.D., Ohio University.

Nolan, Lawrence P. (1997)  .................................................. Professor
Philosophy
B.A., M.A., Ph.D., University of California, Irvine.

Nou, Leakhena (2005)  ......................................................... Associate Professor
Sociology
B.A., California State University-Fullerton; M.A., University of Hawaii at Manoa; M.S.W.
Columbia University, NVPD, University of Hawaii at Manoa.

Nutter El Ouuardani, Christine (2014)  ................................ Assistant Professor
Human Development
B.A., Michigan State University; M.A., Ph.D., University of Chicago.

O’Brian, Jonathan J. (2014)  .................................................. Assistant Professor
Educational Leadership
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Ocampo, Alaine (2015)  ........................................................ Assistant Professor
Speech-Language Pathology
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O’Connor, Daniel (1999)  ..................................................... Interim Associate Dean
College of Liberal Arts

O’Brien, Jonathan J. (2014)  .................................................. Assistant Professor
Educational Leadership
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O’Donnell, Julie A. (1994)  ..................................................... Professor
School of Social Work
B.A., University of Wisconsin; M.A., Eastern Washington College; Ph.D., University of Washington.

O’Gorman, Hugh (2002)  ....................................................... Professor
Theatre Arts
B.A., Cornell University; M.F.A., University of Washington, Seattle.

Ojeda-Aristizabal, Claudia (2015)  ....................................... Assistant Professor
Physics and Astronomy
Universidad de los Andes, Colombia; M.S., Ecole Normale Superieure, France; Ph.D., University of Paris, France.

O’Lawrence, Henry (2001)  ................................................... Professor
Health Care Administration
B.S., Winston-Salem State University; M.S., University of North Carolina at Greensboro;
Ph.D., Pennsylvania State University.

Onderdonk, Nathan (2007)  .................................................. Associate Professor
Geological Sciences
B.S., Principia College; M.S., Ph.D., University of California, Santa Barbara.

Orozco, Cynthia Marie (2014)  .......................................... Senior Assistant
Information
University Library
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Ortiz, Anna M. (2003)  .......................................................... Professor
Advanced Studies in Education and Counseling
B.S., University of California, Davis; M.A., Ohio State University, Columbus; Ph.D.,
University of California, Los Angeles.
B.A., Valparaiso University; M.A., Naval Post-graduate School, Monterey.

Ostergren, Jennifer A. (2009) .......................................... Associate Professor
Communicative Disorders

B.S., M.S., California State University, Long Beach; Ph.D., Claremont Graduate University.

Ostrowski, John W. (1988) ............................................ Professor
Public Policy and Administration

B.A., Youngstown State University; M.A., Ph.D., Kent State University.

Ottoila, Dorothy J. (2001) ....................................................... Professor
Design

B.F.A., California State University, Long Beach; M.Arch., California Polytechnic State
University, Pomona.

Osuna, Steven (2015) .................................................. Assistant Professor
Sociology

B.A., California State University, Los Angeles; M.A., Ph.D., University of California, Santa
Barbara.

Pace, Douglas A. (2013) .................................................. Assistant Professor
Biological Sciences

B.S., Long Island University; Ph.D., University of Southern California.

Pedersen, William (2002) ........................................... Assistant Professor
Psychology

B.A., Seattle University; M.A., Ph.D., University of Southern California.

Perez, Eduardo L. (2007) ..................................................... Associate Professor
Design

B.Arch., California State Polytechnic University, Pomona; M.Arch., Southern California
Institute of Architecture.

Penzenstadler, Birgit S. (2014) .................................................. Assistant Professor
Computer Engineering and Computer Science

Ph.D., Technical University of Munich, Germany.

Perez Huber, Lindsay (2012) .................................................. Assistant Professor
Advanced Studies in Education and Counseling

B.A., University of California, Irvine; M.A., Ph.D., University of California, Los Angeles.

Perez, Manuel (2005) .................................................. Director
Career Development Center

B.A., San Jose State University; M.A., San Jose State University.

Peretz, Bruno (2004) .................................................. Professor
Biological Sciences

B.A., University of California, Santa Cruz; Ph.D., University of Washington, Seattle.

Perrone, Dina M. (2010) .................................................. Associate Professor
School of Criminology, Criminal Justice, and Emergency Management

B.A., State University of New York; M.A., Ph.D., Rutgers University.

Perruss-Brown, Carol (2008) ............................................ Senior Associate Librarian
University Library

B.S., M.A., University of Maryland; M.L.I.S., University of California, Los Angeles.

Peterson, Michael R. (2011) .................................................. Assistant Professor
Physics and Astronomy

B.Sc., University of Utah, Salt Lake City; Ph.D., Pennsylvania State University, University
Park.

Phengpis, Chanwit (2006) .................................................. Professor
Finance

B.A., Chulalongkorn University, Thailand; M.A., San Francisco State University; Ph.D.,
University of Texas, Arlington.

Philippose, Elizabeth (2002) .............................................. Associate Professor
Women’s, Gender, and Sexuality Studies

B.A., University of Victoria; M.A., York University; Ph.D., York University, Toronto.

Piekarz, Carlos (1990) .................................................. Professor
Religious Studies

B.S., Biola College; M.Div., Th.M., Talbot Theological Seminary; Ph.D., University of
Southern California.

Pickett, Galen T. (1999) .................................................. Professor
Physics and Astronomy

B.S., Massachusetts Institute of Technology; Ph.D., University of Chicago.

Pike, Ruth (2006) .......................................................... Associate Professor
Teacher Education

B.A.; M.A., San Jose State University; M.A., University of Michigan.

Pillai, Shanti (2015) .......................................................... Assistant Professor
Theatre Arts

B.A., Stanford University; M.A., University of California, Berkeley; Ph.D.; New York
University.

Platt, Susan (1997) ..................................................... Executive Director
Testing and Evaluation Services

B.A., Radford College; M.A., University of Southern California; Ph.D.; University of
California, Los Angeles.

Ponce de Leon, Charles L. (2009) .................................................. Professor
History

B.A., University of California, Santa Barbara; Ph.D., Rutgers University.

Portoni, Laura (2007) .................................................. Associate Professor
Advanced Studies in Education and Counseling

B.A., University of Michigan, Ann Arbor; M.A., Indiana University; M.A., University of
the Western Cape, South Africa; Ph.D., University of California, Los Angeles.

Potts, Marilyn K. (1989) .................................................. Professor
School of Social Work

B.S., Purdue University; M.S.W., Indiana University, Indianapolis; Ph.D., Purdue
University.

Pounds, Michael C. (1989) .................................................. Professor
Film and Electronic Arts

B.A., University of Maryland, Baltimore; M.A., Ph.D., New York University. Emeritus 2014.

Powell, David C. (2001) .................................................. Professor
Public Policy and Administration

B.A., Baldwin-Wallace College; M.A., Ohio University; Ph.D., Miami University.

Powers, Kristen M. (2000) .................................................. Professor
Advanced Studies in Education and Counseling

B.S., University of Wisconsin, Madison; M.A., Ph.D., University of Minnesota, Minneapolis.

Prince, Judy L. (2002) .................................................. Psychologist
Counseling and Psychological Services

B.A., University of California, Los Angeles; M.A., Loyola Marymount University; M.A.,
Psychology, California School of Professional Psychology, Alhambra.

Proctor-Tiffany, Mariah (2013) .................................................. Assistant Professor
Art

B.A., M.A., Brigham Young University; Ph.D., Brown University.

Pprombut, Wirom (2012) .................................................. Assistant Professor
Finance

B.Eng., King Mongkut’s Institute of Technology, Thailand; M.S., National Institute of
Development Administration, Thailand; Ph.D., University of Texas at Arlington.
Qi, Yanling (2015) .................................................... Assistant Professor
Healthcare Administration
B.A., Nankai University, China; M.A., Ph.D., Georgia State University.

Qiu, Tianjiao (2007) ..................................................... Associate Professor
Marketing
B.A., Zhejiang University, China; M.Ed., Ph.D., University of Illinois at Urbana-Champaign.

Quam-Wickham, Nancy L. (1994) ......................................................... Professor
History
B.A., San Francisco State University; M.A., Ph.D., University of California, Berkeley.

Quintilliani, Karen (2003) ...................................................... Professor
Anthropology
B.A., Loyola Marymount University; M.A., California State University, Long Beach; Ph.D., University of California, Los Angeles.

Rae-Espinoza, Heather (2007) ......................................................... Associate Professor
Human Development
B.A., Hamilton College; M.A., University of California, San Diego.

Rahai, Hamid R. (1989) ......................................................... Associate Dean for Research
College of Engineering

Raisley, Jason (2007) ......................................................... Associate Professor
Philosophy
B.A., DePauw University; M.A., Ph.D., University of Massachusetts, Amherst.

Rajput, Subhash (1990) ......................................................... Professor
Physics and Astronomy
B.Sc., Ph.D., Imperial College, London.

Ramachandran, Hemalatha (2007) ......................................................... Librarian
University Library

Ramirez, Genevieve M. (1974) ......................................................... Professor
Chicano and Latino Studies

Ranney, Martha J. (2001) ......................................................... Associate Professor
School of Social Work
B.S., M.S.W., California State University, Long Beach; Ph.D., University of Southern California.

Ransom, Brittany (2015) ......................................................... Assistant Professor
School of Art
B.F.A., Ohio State University; M.F.A., University of Illinois, Chicago.

Rasmussen, Amy Carol (2006) ......................................................... Associate Professor
Political Science
B.A., M.A., California State University, Long Beach; Ph.D., Yale University.

Ratanasiripong, Paul (2008) ......................................................... Professor
Management and Human Resources Management
B.A., University of California, Berkeley; M.A., Ph.D., Wright Institute, Graduate School of Psychology.

Reddy, Sabine B. (2001) ......................................................... Associate Professor
Management and Human Resources Management
M.A., Western Michigan University; Ph.D., University of Illinois at Urbana-Champaign.

Redouane, Najib (1999) ......................................................... Professor
Romance, German, Russian Languages and Literatures
B.A., FACUP, Paris, France; M.A., Universite Laval, Quebec, Canada; M.A., Ph.D., University of Toronto, Canada.

Reed, Jennifer (2006) ......................................................... Professor
Women’s, Gender, and Sexuality Studies
B.A., Loyola Marymount University; M.A., Ph.D., University of California, Irvine.

Reese, Leslie (2001) ......................................................... Professor
Teacher Education
B.A., Stanford University; M.A., California State University, Long Beach; Ph.D., University of California, Los Angeles.

Reiboldt, Wendy L. (1992) ......................................................... Professor
Family and Consumer Sciences
B.S., Miami University, Ohio; M.S. and Ph.D., Ohio State University.

Reynolds, Grace (2007) ......................................................... Associate Professor
Health Care Administration
B.A., Macalester College; M.A., University of Alaska Anchorage; Ph.D., University of Southern California.

Rezai, Ali (2002) ......................................................... Professor
Advanced Studies in Education and Counseling
B.S., M.S., Shiraz University, Iran; Ph.D., University of Calgary, Canada.

Rhee, Thomas A. (1988) ......................................................... Professor
Finance
B.A., Hankuk University of Foreign Seoul, Korea; M.A., Kent State University; M.A., University of Chicago; Ph.D., Wayne State University. Emeritus 2014.

Rich, Marc D. (2001) ......................................................... Professor
Communication Studies
B.A., M.A., California State University, Northridge; Ph.D., Southern Illinois University.
Russo, Albert C. (1988)  ..................................................................................... Professor
Communication Studies
B.A., M.S., University of California, Los Angeles; Ph.D., Auburn University. Emeritus, 2013.

Rubio, Olga G. (1997) .................................................................................. Professor
Teacher Education
B.S., Texas A & I University; M.S., University of Texas at San Antonio; Ph.D., University of Pennsylvania.

Russell, Jessica (2013) .................................................................................... Assistant Professor
Communication Studies
B.A., M.A., California State University, Sacramento; Ph.D., Michigan State University.

Russo, Albert C. (1988)  ..................................................................................... Professor
Communication Studies
B.A., M.S., University of California, Los Angeles; Ph.D., Auburn University. Emeritus, 2013.

Ruwe, Mark A. (2002) .................................................................................... Professor
School of Art
B.F.A., Kutztown University of Pennsylvania; M.F.A., Université Concordia.

Saadeh, Shadi (2007) ..................................................................................... Associate Professor
Civil Engineering and Construction Engineering Management
B.S., University of Jordan, Amman, Jordan; M.S., Washington State University; Ph.D., Texas A&M University.

Sachdeva, Darshan (1973) ................................................................................... Professor
Finance
B.A., Panjab University; M.S., Florida State University; Ph.D., University of California.

Sanfilippo, David (1978) ..................................................................................... Director
Disabled Student Services
B.A., University of California, Santa Barbara; M.A., Ph.D., University of California, Santa Cruz.

Sanfilippo, David (1978) ..................................................................................... Director
Disabled Student Services
B.A., University of California, Santa Barbara; M.A., Ph.D., University of California, Santa Cruz.

Sanfilippo, David (1978) ..................................................................................... Director
Disabled Student Services
B.A., University of California, Santa Barbara; M.A., Ph.D., University of California, Santa Cruz.

Scheffski, Harold K. (1988) .................................................................................... Professor
Romance, German, Russian Languages and Literatures
B.A., University of California, Davis; M.A., Ph.D., Stanford University. Emeritus, 2013.

Scherwin, Vicki M. (2009) .................................................................................... Assistant Professor
Management and Human Resources Management
B.A., University of California, Berkeley; Ph.D., University of California, Los Angeles.

Schramm, Michael (2007) .................................................................................... Associate Professor
Chemistry and Biochemistry
B.S., State University of New York, Syracuse; M.S., Ph.D., University of Chicago.

Schrank, Sarah L. (2002) .................................................................................... Professor
Music
Baccalauréat de Francais, Lycee Marcelin Berthelot, France; B.A., McGill University, Canada; Ph.D., University of California, San Diego.

Schrock, Rebecca (2007) .................................................................................... Associate Professor
School of Art
B.A., University of Nebraska-Lincoln; M.F.A., Massachusetts College of Art.

Scherer, Norbert E. (2003) .................................................................................... Professor
English
B.A., Hochschule der Künste, Berlin; M.A., Free Université, Berlin; Ph.D., Duke University.

Schwans, Jason P. (2012) .................................................................................... Assistant Professor
Chemistry and Biochemistry
B.A., Augustana College, South Dakota; M.S., Ph.D., University of Chicago.

Sciortino, Antonella (2004) .................................................................................... Professor
Civil Engineering and Construction Engineering Management
B.S., Politecnico di Bari, Italy; M.S., University of California, Los Angeles.

Scott-Hayward, Christine S. (2013) ....................................................................... Assistant Professor
School of Art
B.F.A., University of Iowa; M.F.A., State University of New York.

Seyburn, Patricia (2006) .................................................................................... Associate Professor
English
B.S., M.S., Northwestern University; Ph.D., University of Houston

Shaffer, David A. (2002) .................................................................................... Professor
History
B.A., University of California, Los Angeles; J.D., Loyola Law School; Ph.D., University of London, England.

Shaffer, Gwen L. (2012) .................................................................................... Assistant Professor
Journalism and Mass Communication
B.A., University of Michigan, Ann Arbor; M.A., Ph.D., Temple University, Philadelphia.

Shahian, Bahram (1983) .................................................................................... Professor
Journalism and Mass Communication
B.S., University of Texas, Austin; M.S., Stanford University; Ph.D., University of California, Los Angeles.

Shaked, Nizan (2006) .................................................................................... Associate Professor
School of Art
P.P.C., Beit Beet College, Midrash School of Art, Israel; M.A., University of California, Los Angeles; M.F.A., Otis College of Art and Design.

Shankar, Praveen (2011) .................................................................................... Assistant Professor
Mechanical and Aerospace Engineering
B.S.M.E., Bangalore University, India; M.S., Ph.D., Ohio State University, Columbus.

Shohat, Eldeen, Tariq (2004) .................................................................................... Professor
Civil Engineering and Construction Engineering Management
B.A., M.S., King Fahd University of Petroleum and Minerals, Saudi Arabia; Ph.D., Concordia University, Quebec, Canada.

Shelley, Nancy S. (2001) .................................................................................... Professor
English
B.A., Murray State University; M.A., University of Illinois at Urbana-Champaign; Ph.D., University of Kansas. Emeritus, 2013.

Schick, Evan (2015) .................................................................................... Assistant Professor
School of Art
B.F.A., Chung Ang University, Seoul Korea; M.F.A., California Institute of the Arts.
Shin, Fay H. (2001) ................................................................. Professor
Teacher Education
B.A., University of California, Los Angeles; M.S., Ph.D., University of Southern California.

Shon, Young-Seok (2006) .................................................. Professor
Chemistry and Biochemistry
B.S., M.S., Istanbul Technical University, Turkey; Ph.D., Saint Louis University.

B.A., University of California, Santa Cruz; M.A., University of Rochester, NY; Ph.D., School of Art

Simms, Matthew T. (2003) .................................................. Professor
School of Art
B.F.A., Tyler School of Art, Temple University; M.F.A., Yale University.

Siqueira, Carlos A. (1997) ................................................... Professor
School of Art
B.S., Universidade Federal do Rio Grande do Sul; M.F.A., Northern Illinois University; Ph.D., Texas Tech University.

Simeonov, Simeon (2014) .................................................... Assistant Professor
Music – Bob Cole Conservatory of Music
B.M., Eastman School of Music; Artist Diploma, Violin; M.M., Yale University.

Simms, Matthew T. (2003) .................................................. Professor
School of Art
B.A., University of California, Santa Cruz; M.A., University of Rochester, NY; Ph.D., Harvard University.

Siny, Tony (2003) ................................................................. Professor
Health Care Administration
B.S., M.S., Istanbul Technical University, Turkey; Ph.D., Saint Louis University.

Sinchak, Kevin (2006) ......................................................... Associate Professor
Biological Sciences
B.S., Ph.D., Michigan State University.

Singh, Praveen (2009) .......................................................... Professor
Accountancy
B.A., M.A., Lucknow University, India; Ph.D., Carnegie Mellon University.

Slater, Charles (2006) .......................................................... Professor
Advanced Studies in Education and Counseling
B.A., University of Minnesota; M.A., Occidental College; Ph.D., University of Wisconsin-Madison.

Slowinska, Katarzyna (2004) .................................................. Professor
Chemistry and Biochemistry
M.S., Warsaw University, Poland; Ph.D., University of California, Berkeley.

Slowinski, Krzysztof (2001) .................................................... Interim Associate Dean for Instruction and Curriculum
College of Natural Sciences and Mathematics

--- ................................................................. Professor
Chemistry and Biochemistry
M.S., Ph.D., Warsaw University, Warsaw, Poland.

Smith, Rodney (2006) .......................................................... Professor
Accountancy
B.S., University of Oregon; M.S., Naval Postgraduate School; Ph.D., University of California, Irvine.

Sodagari, Shabnam (2015) ................................................... Assistant Professor
Electrical Engineering
B.S., Sharif University of Technology, Iran; M.S., University of Ottawa, Canada; Ph.D., Pennsylvania State University.

Sohn, Myunghee (2014) ....................................................... Assistant Professor
Family and Consumer Sciences
B.A., Hanyang University, Korea; M.A., Ph.D., University of Minnesota, St. Paul.

Solt, Michael (2008) ............................................................ Dean
College of Business Administration

--- ................................................................. Professor
Finance
B.S., Ohio State University; M.B.A., D.B.A., Indiana University.

Son, Myungook (2015) ....................................................... Assistant Professor
Marketing
B.A., M.A., Seoul National University, Korea; M.B.A., University of Rochester; Ph.D., Texas A&M University, College Station
Sultana, Rebeka (2011) ...........................................Assistant Professor
Civil Engineering and Construction Engineering Management
B.S., Bangladesh University of Engineering and Technology, India; M.C.E., Purdue University, Lafayette; Ph.D., University of California, Irvine.

Sun, Lei (2011) ...........................................................Assistant Professor
Communicative Disorders
B.A., National Taipei University, Taiwan; M.A., Shih Hsin University, Taiwan; M.S., Ph.D., University of Oregon, Eugene.

Symcox, Linda S. (2000) ..........................................Professor
Teacher Education
B.A., University of California, Los Angeles; M.A., University of California, Santa Barbara; Ph.D., University of California, Los Angeles. Emerita 2014.

Taber, Ryan (2013) ....................................................Assistant Professor
Art
B.F.A., University of Hartford; M.F.A., California Institute of the Arts.

Takemoto, Mary Ann M. (2005) ................................Associate Vice President
Student Services & Interim Director of Student Health and Services
B.A., Columbia University; Ph.D., Indiana University.

Takeuchi, Michiko (2009) ..............................................Professor
History
B.A., M.A., California State University, Long Beach; Ph.D., University of California, Los Angeles.

Talberg, Jonathan (2000) ..............................................Professor
Civil Engineering and Construction Engineering Management
B.S.M.E., University of Kansas, Lawrence; M.S., California State University, Long Beach.

Taylor, Andrea (2006) ................................................Assistant Professor
University Relations and Development
B.A., University of Oklahoma; M.A., University of California, Berkeley.

Taylor, Carmen (2014) ..................................................Assistant Professor
Student Services
Ph.D., M.S., University of California, Los Angeles; B.S., Northern Illinois University.

Teng, Robert K. F. (1989) .................................................Professor
Electrical Engineering
B.S., Mississippi State University; M.S., Ph.D., Purdue.

Terzic, Vesna (2014) ......................................................Assistant Professor
Civil Engineering and Construction Engineering Management
B.S., University of Belgrade, Serbia; M.S., Saints Cyril and Methodius University of Skopje, Macedonia; Ph.D., University of California, Berkeley.

Teubner, David C. (2005) ..............................................Associate Professor
School of Art
B.A., University of California, Long Beach; M.A., University of California, Fullerton.

Thibault, Marie C. (1988) ..............................................Professor
School of Art
B.F.A., Rhode Island School of Design; M.A., San Francisco State University; M.F.A., University of California, Berkeley.

Thien, Deborah (2006) ....................................................Professor
Geography
B.A., University of Victoria, Canada; M.S. University of Northern British Columbia, Canada; Ph.D., University of Edinburgh, United Kingdom.

Thomas, Dustín B. (2008) ..............................................Associate Professor
Psychology
B.A., Middle Tennessee State University; M.A., Ph.D., University of Utah.

Thomas, Marshall W. (2001) ...........................................Director
Veteran Affairs Services
B.A., M.A., Ed.D., California State University, Long Beach.

Tian, Fangyuan (2015) ..................................................Assistant Professor
Chemistry and Biochemistry
B.B.A., Jinlin University, China; Ph.D., University of Delaware, Newark.

Tojil, Dean S. (1999) ....................................................Assistant Professor
Chemical and Materials Engineering
B.S., University of Technology, Iran; M.S., Ph.D., University of California, Berkeley.

Torabzadeh, Jalal (1986) ....................................................Professor
Mechanical and Aerospace Engineering
B.S., Abadan Institute of Technology, Iran; M.S., Ph.D., University of Southern California.

Toress-Santos, Raymond (2011) .....................................Professor
Bob Cole Conservatory of Music
B.A., Puerto Rico Conservatory of Music; M.A., Ph.D., University of California, Los Angeles.

Tortorici-Luna, Joanne (2000) ......................................Professor
Advanced Studies in Education and Counseling
B.A., California State University, Los Angeles; M.A., University of California, Los Angeles; Ph.D., University of Southern California.

Travis, Tiffla A. (1999) ..................................................Librarian
University Library
B.A., University of California, Berkeley; M.L.I.S., University of California, Los Angeles.

Tredway, Thomas (2015) ............................................Assistant Professor
Design
B.A., Oberlin College; M.A., M.PhiL, Bard College, New York.

Tsai, Houngh-Wei (2009) ..............................................Associate Professor
Biological Sciences
B.S., M.S., National Taiwan University, Taiwan; M.S., University of California, Los Angeles; Ph.D., University of Kentucky.

Tsang, Chi-Lung (1988) ..................................................Professor
Electrical Engineering
B.S., Louisiana State University; M.S., Ohio State University; Ph.D., University of Southern California.

Tuveson, Richard V. (1983) ............................................Associate Professor
Family and Consumer Sciences
B.S., M.S., Iowa State University, Ames.

Underwood, Dessie L. (1999) ...........................................Professor
Biological Sciences
B.A., California State University, Fresno; M.S., Ph.D., University of California, Davis.

Urizar, Jr., Guido (2006) ...............................................Associate Professor
Psychology
B.S., University of Miami; Ph.D., University of Florida.

Uteley, Ebony (2006) ....................................................Associate Professor
Communication Studies
B.A., Indiana University; M.A., Ph.D., Northwestern University.

Vaca, Andrew B. (2002) ...............................................Professor
Dance
B.A., California State University, Sacramento; M.F.A., University of California, Los Angeles.

Vail, Leland S. (1995) ....................................................Professor
Music - Bob Cole Conservatory of Music

Valentini, Robert C. (1989) ...........................................Professor
Mathematics and Statistics
B.A., Carnegie-Mellon; M.S., Ph.D., Ohio State University.

van Elk, Marie A. (2000) .............................................Professor
English
M.A., University of Amsterdam; M.A., Ph.D., Rice University.

Van Otterloo, Lucy (2013) .............................................Assistant Professor
School of Nursing
B.S.N., California State University, Los Angeles; M.S.N., Azusa Pacific University; Ph.D., University of San Diego.

Vargas, Tiffany M. (2012) ...............................................Associate Professor
Kinesiology
B.A., University of Texas at Austin; M.A., Ph.D., Michigan State University.

Veloz, Vlatka (2001) ....................................................Professor
Comparative World Literature and Classics
B.A., University of Padua, Padua, Italy; M.A., Ph.D., University of Oregon.

Vettore, Enrico (2007) ....................................................Associate Professor
Romance, German, Russian Languages and Literatures
B.A., University of Padua, Padua, Italy; M.A., Ph.D., University of Oregon.

Vickovic, Samuel (2015) ............................................Assistant Professor
School of Criminology
B.A., University of California, Irvine; M.S., California State University, Long Beach; Ph.D., Arizona State University.

Viet, Ngo N. P. (1989) ....................................................Professor
Mathematics and Statistics
B.S., University of Minnesota; Ph.D., University of California, Berkeley.

Vignon, Diane L. (1988) ....................................................Professor
English
B.S., McGill University, Montreal; M.A., Concordia University, Montreal; Ph.D., York University, Toronto.

Vogel, Brenda L. (2001) ...............................................Professor
School of Criminology, Criminal Justice, and Emergency Management
B.S., M.S., University of North Carolina at Charlotte; Ph.D., University of California, Irvine.

von Bretch, James H. (2014) ............................................Assistant Professor
Mathematics and Statistics
B.S., M.S., Ph.D., University of California, Los Angeles.
Vu, Kim-Phuong (2005) ................................................................. Professor
Psychology
B.A., California State University, Long Beach; M.S., Ph.D., Purdue University.

Wagdy, Mahmoud F. (1989) ............................................................... Professor
Electrical Engineering
B.S., M.S., Cairo University; Ph.D., Kansas State University.

Wallace, David (2012) ................................................................. Dean
College of Liberal Arts

................................................................. Professor
English

Wallach, Geraldine P. (2000) ............................................................ Professor
Communicative Disorders
B.A., Long Island University, Brooklyn, New York; M.A., New York University; Ph.D., Gradute School and University Center of the City University of New York.

Wallis, Charles (2000) ................................................................. Professor
Philosophy
B.A., Metropolitan State College, Denver, Colorado; Ph.D., University of Minnesota.

Walton, Kevin (2008) .............................................................. Associate Professor
Political Science
B.A., University of California, Irvine; M.A., Ph.D., University of California, Berkeley.

Walter, C.J. (1993) ................................................................. Professor
Information Systems
B.A., M.S., Ph.D., University of Iowa.

Walters, Kimberly (2015) ............................................................. Assistant Professor
International Studies
B.A., Brigham Young University; M.A., Ph.D., University of Chicago.

Wang, Fei (2007) ................................................................. Associate Professor
Electrical Engineering
B.S., Peking University; M.S., Ph.D., University of Cincinnati.

Wang, John Z. (1999) ................................................................. Professor
School of Criminology, Criminal Justice, and Emergency Management
B.A., Liaoning Teachers’ University, China; M.A., Liaoning Provincial University, China; M.P.A., Northern Michigan University; Ph.D., Indiana University of Pennsylvania.

Wang, Long (2013) ................................................................. Assistant Professor
Family and Consumer Sciences
B.Med., M.Med., Hebei Medical University, China; Ph.D., Purdue University.

Wang, Oliver (2006) ................................................................. Associate Professor
Sociology
B.A., M.A., Ph.D., University of California, Berkeley.

Wang, Yu (2015) ................................................................. Associate Professor
Marketing
B.Eng., M.A., Shanghai Jiao Tong University, China; M.A., Ph.D., University of Michigan, Ann Arbor.

Wang, Yu-Ming (1999) ................................................................. Professor
Information Systems
B.S., National Taiwan University; M.B.A., National Chengchi University, Taiwan; Ph.D., New York University.

Warren, Christopher (2006) ................................................................. Associate Professor
Psychology
B.A., University of South Florida; M.S., Ph.D., Tulane University.

Washburn, Mark W. (2009) ................................................................. Associate Professor
Management and Human Resources Management
B.A., University of California, Los Angeles; M.B.A., California State University, Long Beach; Ph.D., University of California, Irvine.

Washington, Thomas Alex (2008) ................................................................. Professor
School of Social Work
B.A., LeMoyne-Owen College; M.A., University of Memphis; M.S.S.W., Ph.D., University of Tennessee.

Waterfield, Brett L. (1992) ................................................................. Director
Student Life and Development
B.S., California State University, Long Beach.

Watson, Saleem H. (1986) ................................................................. Professor
Mathematics and Statistics
B.S., Andrews University; M.S., Ph.D., McMaster University, Canada.

Wax, Amy (2015) ................................................................. Assistant Professor
Psychology
B.A., Occidental College; M.S., Ph.D., Georgia Institute of Technology.

Webb, Charles H. (1987) ................................................................. Professor
English
B.A., Rice University; M.A., University of Washington, Seattle; M.F.A., Ph.D., University of Southern California.

Wechsler, Suzanne P. (2000) ................................................................. Associate Professor
Geography
B.A., Tufts University; M.S., State University of New York at Syracuse; Ph.D., State University of New York.

Weers, Paul M. M. (2003) ................................................................. Professor
Chemistry and Biochemistry
M.S., Ph.D., Utrecht University, Netherlands.

Wegener, Frederick (1998) ................................................................. Professor
English
B.A., Columbia University; M.A., Ph.D., Harvard University.

Whisler, Daniel (2015) ............................................................. Assistant Professor
Mechanical and Aerospace Engineering
B.S., M.S., Ph.D., University of California, San Diego.

Whitcraft, Christine (2007) ............................................................. Associate Professor
Biological Sciences
B.A., M.A., Williams College, Williamstown, Massachusetts; Ph.D., University of California, San Diego.

White, Barbara (1990) ............................................................. Director
Center for Successful Aging

................................................................. Associate Professor
School of Nursing
B.S.N., Loyola University, Chicago; M.S., California State University, Long Beach.

Whitehead, Jason (2007) ........................................................... Associate Professor
Political Science
B.A., California State University, Long Beach; M.A., Ph.D., University of Southern California; J.D., Willamette University.

Whitlow, Michael L. (2002) .......................................................... Professor
School of Art
B.S., M.S., University of Illinois, Urbana-Champaign.

Whitney David J. (1995) ................................................................. Professor
Psychology
B.S., Union College; M.A., Ph.D., Michigan State University.

Wieland, Nellie (2007) ............................................................. Associate Professor
Philosophy
B.A., California State University, Humboldt; M.A., Ph.D., University of California, San Diego.

Wiley, Mark L. (1994) .......................................................... Associate Vice President Academic Affairs
Faculty Affairs

................................................................. Professor
English
B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California.

Wilford, Francis Hugh (2006) .......................................................... Professor
History
B.A., Bristol University, United Kingdom; Ph.D., Exeter University, United Kingdom.

Williams, Emry W. (1996) .......................................................... Professor
Kinesiology
B.A., Cardiff Institute of Higher Education, Wales, UK; M.A., California State University, Long Beach; Ph.D., Ohio State University.

Williams, Mark T. (1999) .......................................................... Associate Professor
English
B.S., Utah State University; M.A., University of Texas at El Paso; Ph.D., University of Arizona.

Wilson, Aaron (2006) .......................................................... Assistant Professor
Africana Studies
B.A., M.A., Rhode Island School of Design; Ph.D., Temple University.

Wilson, Jake B. (2008) .......................................................... Associate Professor
Sociology
B.S., University of California, Berkeley; M.A., Ph.D., University of California, Riverside.

Wilson, Raymond R. Jr. (1999) .......................................................... Professor
Biological Sciences
B.A., University of California, San Diego.

Wilson, Robert Scott (2003) .......................................................... Associate Professor
Anthropology
B.A., University of North Carolina, Charlotte; M.A., Stanford University.

Wilson, Steve R. (2004) .......................................................... Associate Professor
School of Social Work
B.A., M.S.W., California State University, Long Beach; Ph.D., University of Southern California.

Witkowski, Terence H. (1982) .......................................................... Professor
Marketing
B.A., Northwestern University, Illinois; M.S., University of California, Los Angeles; Ph.D., University of California, Berkeley.

Woelfel, Wesley (2009) .......................................................... Associate Professor
Design
B.S., M.A., California State University, Long Beach.

Woodward, Kerry C. (2008) .......................................................... Associate Professor
Sociology
B.A., Smith College; M.A., New School for Social Research, New York; Ph.D., University of California, Berkeley.
Wray, Howard E. (1998) .........................................................Executive Director
Educational Equity Services
B.S., M.A., Indiana University of Pennsylvania; J.D., Georgetown University.

Wright, Cory D. (2008) .....................................................Associate Professor
Philosophy
B.A., Wabash College, M.A., University of Mississippi; Ph.D., University of California, San Diego.

Wright, Teresa A. (1996) ....................................................Professor
Political Science
B.A., Santa Clara University; M.A., University of California, Berkeley.

Wright, Wayne (2005) ......................................................Professor
Philosophy
B.A., Hofstra University; M.A., University of Florida; Ph.D., Temple University.

Wu, Haiping (2015) ............................................................Assistant Professor
Asian and Asian American Studies
B.A., Tsinghua University, China; M.A., University of California, Santa Barbara; Ph.D., University of California, Los Angeles.

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Science Education
B.A., University of California, Berkeley; M.A., Whittier College; Ph.D., University of Southern California.
Option in Accountancy ... 93
Option in Finance ... 463–464
Option in Human Resources Management ... 620
Option in International Business ... 554
Option in Management ... 620
Option in Management Information Systems ... 550
Chemical Engineering ... 245
Chemistry ... 251
Civil Engineering ... 276
Computer Engineering ... 310–311
Computer Engineering Technology ... 411–414
Computer Science ... 312–313
Construction Engineering Management ... 280
Criminology and Criminal Justice ... 333
Dietetics and Food Administration ... 710
Dietetic Option in Food Science ... 465
Dietetics and Food Administration ... 711
Earth Science ... 487
Electrical Engineering ... 384–385
Electronics Engineering Technology ... 413–414
Engineering Option in Biomedical and Clinical Engineering ... 386–387
Environmental Science and Policy ... 437–438
Geology ... 498–487
Health Care Administrator ... 511
Health Science ... 518
Health Science, Option in Community Health Education ... 518
Health Science, Option in Radiation Therapy ... 519–519
Health Science, Option in School Health Education ... 519–520
Hospitality Management ... 541–542
Industrial Design ... 357
Kinesiology ... 577
Kinesiology, Option in Exercise Science ... 577
Kinesiology, Option in Fitness ... 578
Marine Biology ... 206
Mathematics ... 626–627
Mathematics, Option in Applied Mathematics ... 627
Mathematics, Option in Mathematics Education ... 629
Mathematics, Option in Statistics ... 629
Mechanical Engineering ... 644
Microbiology ... 690
Basic ... 690
Registered Nurse ... 691
Option Molecular Cell Biology and Physiology ... 204
Organismal Biology ... 202
Physics ... 731–732
Basic Tuition Fees ... 31
Beach Fund ... 82
Beckman Scholars Program ... 686
BIA Grants ... 40
Bickerstaff Academic Center for Student-Athlete Services ... 42
Biochemistry and Chemistry ... 250–259
Honors ... 255
Biol Courses ... 214–224
Biological Sciences ... 198–222
Courses ... 214–226
Graduate Programs ... 211–215
Undergraduate Programs ... 199–206
Biology Education
Option in ... 201
Preliminary Credential ... 201
Biomedical and Clinical Engineering ... 386–387
Biomedical Art Certificate ... 149, 210
Biotechnology Certificate ... 210
Bisexual Student Resource Center ... 47
BLAW Courses ... 237
Bob Cole Conservatory of Music ... 663–681
Bridges to the Baccalaureate Program ... 686
Buildings ... 886
Bureau of Indian Affairs (BIA) Grants ... 40
Business Administration
Graduate Courses ... 235
Master of ... 231–234
Business Administration, College of ... 227–238
Business Economics ... 363
Business Law
Courses ... 237
C
CAFF Courses ... 328
Cal Grant A ... 39
Cal Grant B ... 39
California Desert Studies Consortium ... 687
California National Guard ... 40
California Social Work Education Center ... 789
California State University
Chancellor ... 4
Information ... 4
Trustees ... 4
Cajun Student Waiver Program ... 687
Cambodian ... 195
CAMP ... 43
Campus Emergency ... 893
Campus Life ... 42–47
Campus Security Act ... 886
Campus Services ... 46–48
Child Development Center, Isabel Patterson ... 46
Counseling and Psychological Services ... 46
Immunization Requirement Clearance ... 46
Isabel Patterson, Child Development Center ... 46
Library ... 46
Medical Insurance ... 46
Psychological Services ... 46
Student Health Services (SHS) ... 46
University Ombuds ... 46
University Library ... 46
U.S. Passport Application Acceptance Office ... 46
Veterans Affairs Services ... 46
Cancellation of Registration or Withdrawal From CSULB ... 72
Cap and Gown ... 81
Career Development Center ... 43
Careers and Disabilities ... 43
Career Technical Education Courses ... 843–844
Career Technical Education Track (CTE) ... 841
Catalog Rights ... 92, 874
CBA Courses ... 234
CBEST ... 27
CCM ... 687
CCPE ... 330–332
CD Courses ... 827–830
CE Courses ... 282–286
Center for International Education ... 332
Center for International Trade and Transportation (CITT) ... 332
CEPA ... 687
Ceramics
Option in ... 143–144
Certificate
Africana Studies ... 122
Asian Studies ... 185
Biomedical Art ... 149, 210
Biotechnology ... 210
Geographic Information ... 475
Gerontology ... 500
Health Care Administration ... 512
International Business ... 554
Latin American Studies ... 596
Medieval and Renaissance Studies ... 659
Museum Studies ... 153
Nurse Practitioner ... 696
Peace and Social Justice Studies ... 717
Public Management Analysis ... 764
Public Sector Employer-Employee Relations and Personnel Management ... 764
Public Sector Financial Management ... 764
Reading ... 835
Religious Studies ... 776
Teaching English to Speakers of Other Languages ... 614
Therapeutic Recreation ... 770
Transportation ... 229
Urban Studies ... 476
Web and Technology Literacy ... 314
Wilderness Studies ... 582
Curriculum and Instruction, Secondary Education
Option in ... 837
CWL Courses ... 305–308

D
Daily Forty-Niner ... 571
DANC Courses ... 348–353
Dance ... 343–352
Courses ... 348–353
Dance Science
Option in ... 344
Deadlines ... 19
Dean's List ... 80
Graduate Students ... 92
Death in Family ... 51
Attendance ... 51
Death of Student ... 33
Debts Owed ... 36
Declaration of Major ... 76
Degree Clearing ... 79

degrees. See also specific degree
Degrees, Options, Minors, Certificates, and Credentials ... 9–15
Table ... 9–15
Departmental Graduate Student Honors ... 92
Departmental Honors ... 80
Desert Studies ... 687
Desert Studies Consortium ... 198
Design ... 355–360
Courses ... 358
DESN Courses ... 358–361
Determination of Residence for Nonresident ... 33–35
Dietetics ... 710–712
Dig Online ... 571
Diploma Fee ... 32
Disabilities, Students with
Minimum Unit Requirements ... 54
Disabled Student Services ... 43
Disciplinary Procedures ... 894
Disciplinary Sanctions ... 84
Disclosure of Campus Security Policy and Campus Crime Statistics Act ... 888
Discrimination ... 877
Dishonored Checks / EChecks ... 36
Disposition of Fees ... 893
Disputed Credit Card Charge ... 36
Disqualification
Graduate Students ... 91
Disqualification From Impacted Programs ... 70
Distance Education Classes ... 55
Doctoral Tuition Fee ... 31
Doctorate ... 83
Engineering and Industrial Applied Mathematics ... 403–406
Physical Therapy ... 725
Doctor of Physical Therapy Courses ... 727
Dorms ... 29
Double-Counted ... 73
Double Major ... 76
Double-Numbered Courses ... 55
DPT Courses ... 727
Drawing and Painting
Option in ... 143
Drugs and Alcohol ... 887
Dual Language Development
Option in ... 838

E
Early Childhood Education
Courses ... 845
Early Start Program ... 26
Early Start Writing Courses ... 427
Earth Science ... 487
EChecks ... 36
ECON Courses ... 365–368
Economics ... 362–367
Courses ... 365–368
Economic Theory and Mathematical Economics
Option in ... 362
EDAD Courses ... 379–380
EDCI Courses ... 844–845

Ed.D. ... 83
EDEC Courses ... 845
EDEL Courses ... 846–848
EDLD Courses ... 380–381, 383
EDME Courses ... 848–849
EDMS Courses ... 849
EDP Courses ... 113–117
EDRG Courses ... 849–850
EDGE Courses ... 810
EDSS Courses ... 808–810, 809–810
Educational Administration ... 373
Courses ... 379–380
Educational Equity Services ... 44
Educational Leadership
Courses ... 380, 383
Educational Leave ... 72
Educational Library
Courses ... 116–119
Educational Opportunity ... 882
Educational Opportunity Center ... 43
Educational Opportunity Program (EOP) ... 44
Courses ... 865
Educational Psychology
Option in ... 96
Educational Talent Search ... 43
Educational Technology
Courses ... 119
Option in ... 97
Education, College of ... 369–372, 373–380
Education Middle School
Courses ... 849
Education Specialist
Courses ... 116–118
Education Specialist Credential and Intern Option
Mild/Moderate Disabilities ... 106–108
Moderate/Severe Disabilities ... 106–108
EE Courses ... 388–395
Election of Regulations
Graduate Students ... 90
Election of Regulations for Degree Requirements ... 874
Electives
Subject Requirements ... 21
Electrical Engineering ... 384–394
Courses ... 388–393
Electronics Engineering Technology ... 413–414
Electron Microscopy Facility ... 687
Elementary Education
Courses ... 846–848
Eligibility Index ... 21
ELM ... 28
EMER Courses ... 399–400
Emergencies ... 886
Emergency Management ... 398–400
Courses ... 399–400
Emeriti Faculty ... 897–898
Employment Opportunities ... 43
Engineering
Courses ... 406–407, 407–408
Engineering and Industrial Applied Mathematics
Ph.D. ... 403–406
Engineering, College of ... 401–410
Engineering Technology Courses (E T)
Courses ... 415–420
Engineering Technology Programs ... 411–419
English ... 421–434
Subject Requirements ... 21
English Education
Option in ... 421–422
English Language Requirement ... 27
English Placement Test (EPT) ... 28
ENGR Courses ... 406–407, 407–408
Enrolling in Classes ... 50
Enrollment
Concurrent ... 74
Enrollment of Non-matriculated Students ... 21
Entry-Level Mathematics (ELM) Examination ... 28
Environmental Engineering ... 402
Environmental Science and Policy ... 436–437
Courses ... 439
EOP ... 38, 44
EOP Courses ... 865
EPT ... 28
GERN Courses … 501–503
Gerontology … 499–502
Courses … 501
Gifts to the University … 82
GISC Courses … 484
Giving at the Beach … 82
GK Courses … 295–296
GLG Courses … 504–505
Global Logistics … 504–505, 506
Courses … 504
Global Migration Studies
Minor … 506
Grade Appeals … 66–70
Committees … 66
Preliminary Informal Phase … 67
Grading Procedures … 61–65
Graduate and Post-Baccalaureate
Admission Requirements … 84
Graduate and Post-Baccalaureate Applications … 25–26
Graduate Assistant (GA) … 41
Graduate Assistantships … 41, 90
Graduate Business Administration
Courses … 235
Graduate Business Professional Fee … 31
Graduate Center for Public Policy and Administration … 762–766
Graduate Certificate
Latino Health and Nutrition Studies … 508
Museum Studies … 153
Nurse Practitioner … 696
Public Management Analysis … 764
Public Sector Employer-Employee Relations and Personnel Management … 764
Public Sector Financial Management … 764
Teaching English to Speakers of Other Languages … 614
Graduate Certificate in Applied Disability Studies … 104
Graduate Credit … 78
Graduate Dean's List … 92
Graduate Degree Information … 83–91
Academic Credit … 91
Academic Load … 92
Admission Requirements … 84
Advancement to Candidacy … 89
Certificates … 84
Credit/No Credit Grading … 91
Degrees List … 83–84
Election of Regulations … 90
Graduate and Post-Baccalaureate
GWA … 78–79, 85–86
Gym … 47

H
Handloser Graduate Student Tuition Grant … 198
Hardship Petitions … 26
HCA Courses … 514–516
HDEV Courses … 547–548
Health … 865
Health and Human Services, College of … 507–509
Health Care Administration … 511–515
Courses … 514–516
Health & Human Services, College of
Courses … 509–510
Health Professional Preparation … 199
Health Professions Advising Office (HPAO) … 686
Health Science … 518–524
Courses … 521–524
Preliminary Single Subject Credential … 520
Hebrew
Courses … 570
HEBW Courses … 570
HHS Courses … 509–510
High School Students … 22
HIST Courses … 529–539
History … 525–539
Courses … 525–539
History and Literature - Music
Option in … 688
Hold
Financial … 36–37
Library … 36
Homeland Security, Department of … 24
Honors
Biochemistry and Chemistry … 255
Biological Sciences … 686
Dean's List … 80
Class Attendance … 51
Illustration
Option in … 145
Immunization Requirements for Licensure … 28
Immunization Requirement Clearance … 46
Immunoassay … 46
Impacted Programs … 19
Independent Study Courses … 56
Industrial and Organizational Psychology
Dance ... 346–347
Degrees List ... 83
Education ... 836
Option in Curriculum and Instruction, Elementary Education ... 836
Option in Curriculum and Instruction, Secondary Education ... 837
Option in Dual Language Development ... 838
Option in Early Childhood Education ... 839
Option in Mathematics Education ... 840
Option in Reading/Language Arts ... 840
English ... 424
Family and Consumer Sciences ... 440–441
French and Francophone Studies ... 470
Geography ... 476
German ... 496
History ... 528–529
Italian Studies ... 561
Kinesiology ... 583
Option in Adapted Physical Education ... 583
Option in Coaching and Student-Athlete Development ... 583
Option in Individualized Studies ... 584
Option in Pedagogical Studies ... 583
Option in Sport Management ... 584
Linguistics ... 612
Option in General Linguistics ... 612
Option in Language and Culture ... 613
Music ... 668–669
Philosophy ... 719
Political Science ... 742
Psychology ... 751
Option in Psychological Research ... 751
Religious Studies ... 777
Spanish ... 819
Master of Arts in Education ... 96–100
Master of Business Administration ... 231
Degrees List ... 83
Master of Business Administration/Master of Fine Arts in Theatre Management ... 856
Degrees List ... 83
Master of Fine Arts in Theatre Management
Degrees List ... 83
Master of Fine Arts in Theatre Management/Master of Business Administration ... 856
Master of Music ... 669–670
Degrees List ... 83
Master of Public Administration ... 752
Degrees List ... 83
Option in Public Works Administration ... 760
Option in Urban Affairs ... 763
Master of Public Health ... 520
Degrees List ... 83
Option in Community Health Education ... 520
Master of Science
Applied Statistics ... 633
Biology ... 211–213
Chemistry ... 257–258
Civil Engineering ... 281
Computer Science ... 315
Option in Computer Engineering ... 315
Option in Computer Science ... 315–316
Criminology and Criminal Justice ... 335–336
Degrees List ... 83
Electrical Engineering ... 387–388
Engineering ... 403–404, 649
Geographic Information Science ... 477
Geology ... 489–491
Gerontology ... 499–500
Health Care Administration ... 512
Kinesiology ... 584
Option in Exercise Physiology and Nutrition ... 585
Option in Exercise Science ... 584
Option in Sport and Exercise Psychology ... 585
Option in Sports Medicine and Injury Studies ... 585
Mathematics ... 631
Option in Applied Mathematics ... 631
Option in Mathematics Education for Secondary School Teachers ... 632
Mechanical Engineering ... 647
Microbiology ... 212–214
Nursing ... 692
Option in Clinical Nurse Specialist ... 696
Nutritional Science ... 441
Physics ... 734
Psychology ... 752
Option in Human Factors ... 752
Option in Industrial and Organizational Psychology ... 752
Recreation Administration ... 771–772
Science Education ... 800
Option in Informal Science Education ... 801
Option in Secondary Science Education ... 801
Special Education ... 102
Master of Science in Counseling ... 99–101
Option in Family Therapy ... 100
Option in Marriage Counseling ... 101
Option in Student Development in Higher Education (SDHE) ... 374
Master of Science in Professional Physics ... 735
Master of Science in Supply Chain Management
The Master of Science in Supply Chain Management program is designed to provide its students with advanced and highly demanded training in modern supply chain management practices, analysis methods, and technology ... 231
Master of Social Nursing/Master of Public Health
Degrees List ... 83
Master of Social Work ... 789–790
Degrees List ... 83
Masters List ... 83, 83–84
MATH Courses ... 634–638
Mathematical Economics and Economic Theory
Option in ... 302
Mathematics
Courses ... 634–638
Credential ... 629
Subject Requirements ... 21
Mathematics and Statistics ... 626–640
Mathematics Education
Courses ... 639–641, 848–849
Option in ... 629, 840
Mathematics Education for Secondary School Teachers
Option in ... 632
May Session Students ... 21
MBA ... 231–234
MCAT ... 27
Mechanical and Aerospace Engineering ... 643–658
Courses ... 649–654
Mechanical Engineering Program ... 644
Medical Insurance ... 46
Medieval and Renaissance Studies ... 659
Metal, Fiber, Wood - 3-D Media
Option in ... 362
Microbiology
Bachelor of Science ... 208
Military Science ... 661–662
Courses ... 661–662
Minimum Unit Requirements
Graduate Students ... 281
International Students ... 54
Students in Special Classifications ... 54
Students with Disabilities ... 54
Veterans ... 54
Minor
African Studies ... 123
American Studies ... 130
Anthropology ... 132
Applied Mathematics ... 630
Asian American Studies ... 186
Biology ... 209
Chemistry ... 256
Chicano and Latino Studies ... 266
Classical Studies ... 292
Communication Studies ... 298
Comparative World Literature ... 305
PHIL Courses ... 720–724
Philosophy ... 718–724
Courses ... 720–724
PHSC Courses ... 740
Physical Science
Courses ... 740
Physical Therapy ... 725–728
Courses ... 727–729
Doctor of ... 725
Physics
Credentialed ... 733–734
Physics and Astronomy ... 731–738
Physiology
Option ... 204
Plagiarism ... 892
Definition ... 51
Police ... 886
Policy on Sexual Assault ... 887
Policy Prohibiting Discrimination and Harassment ... 882
Political Science ... 741–748
Courses ... 744–748
PORT Courses ... 784
Portuguese
Courses ... 784
POSC Courses ... 744–748
Postbaccalaureate
Level Definition ... 74
Post-Baccalaureate
Admission Requirements ... 84
Post-Baccalaureate and Graduate Applications ... 25–26
PPA Courses ... 765–766
Prebaccalaureate Advising Support Services ... 42
Prefix
Definitions ... 16–17
Preparatory ... 24
Prerequisites
Defined ... 55
President ... 893
President's List ... 80
President's Scholars Program ... 38
Prevent Crime ... 886
Principles of Shared Community ... 877
Printmaking
Option in ... 147
Privacy Rights ... 889
Probation
Academic ... 70
Academic Disqualification ... 70
Administrative Academic ... 70
Probation and Disqualification ... 70–71
Procedures and Policies
Admissions ... 19–21
Professional Administrative Services Credential ... 379
Programs
Impacted ... 19
Provisional Admission ... 22
Psychiatric-Mental Health Nurse Practitioner ... 698
Psychological Research
Option in ... 751
Psychological Services ... 46
Psychology ... 749–758
Courses ... 754–760
PSY Courses ... 754–760
PT Courses ... 727–729
Public Affairs ... 297–298
Public Education Speech-Language Pathology ... 827
Public Management Analysis ... 764
Public Policy
Interdisciplinary Minor ... 742
Public Policy & Administration
Courses ... 765–766
Public Policy and Administration ... 762–766
Public Relations ... 572
Public Sector Employer-Employee Relations and Personnel Management ... 764
Public Sector Financial Management ... 764

Q
Queer Studies

Minor ... 869

R
Reading and Language Arts Specialist
Credential ... 836
Reading Certificate ... 835
Reading Education
Courses ... 849
Reading/Language Arts
Option in ... 840
Readmission ... 90
REC Courses ... 772
Recreation
Courses ... 772–774
Recreation and Leisure Studies ... 768–773
Refund
Student Fees ... 72
Refunds
Compulsory Military Service ... 33
Death of Student ... 33
eRefund ... 37
F.A.I.R. ... 33
Fees Collected in Error ... 33
Financial Appeals Independent Review Committee ... 33
Mandatory Fees ... 32–33
Registration and Tuition Fees ... 33
Special Circumstances ... 33
Registration
Cancellation ... 72
Registration and Tuition Fees
Refunds ... 33
Registration Holds ... 50
Regulations
Master's Degree ... 87
Reinstatement ... 71
Religious Studies ... 776–780
Courses ... 777–780
Repitition of Courses ... 65
Replacement of Student ID Card ... 31, 32
Reporting Crimes ... 886
Reporting Emergencies ... 886
Research Award
Richard B. Loomis ... 198
Residence of
Married Person ... 35
Minor Person ... 35
Returning and Transfer Students ... 26
General Education ... 76
RGR Courses ... 782–783
RGRLL ... 782–783
Rhettic and Composition
Option in ... 423
RICA ... 27
Richard B. Loomis Research Award ... 198
Romance, German, Russian Lang. & Lit. Dept.
Courses ... 782
Romance, German, Russian Languages and Literatures ... 782
Roman Civilization
Option in ... 292
ROTC ... 661
R/ST Courses ... 777
RUSS Courses ... 785–786
Russian ... 785–786
Courses ... 785–786

S
Safari to Success ... 198, 250, 486, 626, 731
SAS ... 686
SAT ... 27
SCED Courses ... 802–803
Schedule of Fees ... 31
Scholarship
Graham Medical ... 198
Scholarship Award
Frank Schatzlein ... 198
Scholarship Information ... 38
School Counseling
Credential ... 104
Option in ... 101
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