



CALIFORNIA STATE UNIVERSITY, LONG BEACH
2003-2004 Undergraduate and Graduate Catalog

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THE CALIFORNIA STATE UNIVERSITY

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became the California State University and Colleges, and in 1982 the system became The California State University. Today the campuses of the CSU include 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..

Responsibility for the California State University is vested in the Board of Trustees whose members are appointed by the Governor. The Trustees appoint the Chancellor, who is the chief executive officer of the system, and the Presidents, who are the chief executive officers of the respective campuses.

The Trustees, the Chancellor, and the Presidents develop systemwide policy, with implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the Chancellor.

Academic excellence has been achieved by the California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require for graduation a basic program of "General Education Requirements," regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,800 bachelor's and master's degree programs in some 240 subject areas. Many of these programs are offered so that students can complete all upper-division and graduate requirements by part-time late afternoon and evening study, or by distance learning from home or work via computer or television. In addition, a variety of teaching and school service credential programs are available. A number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

Enrollments in fall 2002 totaled 406,896 students, who were taught by more than 21,225 faculty. The system awards more than half of the bachelor's degrees and 30 percent of the master's degrees granted in California. Nearly 2 million persons have been graduated from CSU campuses since 1960.

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ADMISSION TO THE UNIVERSITY

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. If you are not sure of these requirements you should consult a high school or community college counselor or CSU campus Admissions office.

Electronic versions of the CSU undergraduate and graduate applications are accessible on the World Wide Web at <http://www.csumentor.edu>. The CSUMentor system allows students to browse through general information about CSU's twenty-three campuses, view multimedia campus presentations, send and receive electronic responses to specific questions, and apply for admission and financial aid. Information on CSULB requirements and deadlines can be found at www.csulb.edu.

Applications may be obtained online or at any California high school or community college or from the Admissions Office at any of the campuses of the California State University.

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, residence questionnaire, and financial aid forms. Further, applicants must 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 of Title 5, California Code of Regulations).

Undergraduate Application Procedures

Prospective students applying for part-time or full-time undergraduate programs of study in day or evening classes must file a complete undergraduate application. The \$55 nonrefundable application fee should be in the form of a check or money order payable to "The California State University" and may not be transferred or used to apply to another term. An alternate campus and major may be indicated on the application, but applicants should list as an alternate campus only a CSU campus that also offers the major. Generally, an alternate major will be considered at the first-choice campus before an application is redirected to an alternate choice campus.

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. If the absence exceeds three years, all transcripts must be replaced with official copies. Students who left under academic disqualification must submit an Academic Appeals Petition with their completed application prior to August 1 for Fall semester or December 1 for Spring semester.

Impacted Programs

The CSU designates programs as impacted when more applications are received in the filing period (October and November for fall terms, August for spring terms) than can be accommodated. Some programs are impacted at every campus where they are offered; others are impacted only at some campuses. You must meet supplementary admission criteria if applying to an impacted program.

The CSU will announce during the fall filing period those programs that are impacted and the supplementary criteria campuses will use. That announcement will be published in the *CSU Review*, and distributed to high school and college counselors, and available online at <http://www.calstate.edu/AR/csureview/>. Information about the supplementary criteria also is sent to program applicants.

You must file your application for admission to an impacted program during the initial filing period. If you wish to be considered for an impacted program at more than one campus, you must file an application to each.

Supplementary Admission Criteria

Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade-point average, completion of specified prerequisite courses, and a combination of campus-developed criteria. If you are required to submit scores for either the SAT I or the ACT and are applying for fall admission, you should take the test as early as possible and no later than October of the preceding year if applying for fall admission.

The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the *CSU Review* and are sent by the campuses to all applicants seeking admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major but may choose an alternate major either at the first choice campus or another campus.

Application Filing Periods

Terms in	Applications	Initial Filing
2003 - 2004	First Accepted	Period
Fall 2003	October 1, 2002	Oct 1 - Nov 30, 2002
Spring 2004	August 1, 2003	August 1-31, 2003

Filing Period Duration

Each campus accepts applications until capacities are reached. Many campuses limit undergraduate admission in an enrollment category because of overall enrollment limits. If applying after the initial filing period, consult the campus admissions office for current information.

Application Acknowledgment

You may expect to receive an acknowledgment from your first-choice campus within two to four weeks of filing the application. The notice may also include a request that you submit

additional records necessary for the campus to evaluate your qualifications. You may be assured of admission if the evaluation of your qualifications indicates that you meet CSU admission requirements and campus requirements for admission to an impacted program. An offer of admission is not transferable to another term or to another campus.

Undergraduate Requirement Deadlines

It is expected that all admission requirements — including subject requirements, unit minimums, and grade-point averages — will be completed in a timely manner prior to matriculation. All requirements for a Fall semester admission must be completed by the previous Spring term. Courses taken in the Summer term prior to transfer are not used in a Fall admission decision. All requirements for a Spring semester admission must be completed by the previous Summer term. Courses taken during the Fall term prior to transfer are not used in a Spring admission decision. While not used in determining admission eligibility, applicable courses taken during the term prior to transfer may be credited towards the bachelor's degree.

Preparation and Eligibility

Undergraduate Admission Requirements — Freshmen

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. Beginning with Fall 2002, CSULB has been receiving 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, preferably on-line. Apply between October 1 and November 30.
- Take the SAT 1 or ACT during October but no later than December and request scores be sent to CSULB.
- Complete the CSU required 15 unit course pattern prior to graduation.
- Perform well – earn the best grades you can (including your senior year).
- Pursue a back up plan should you not be offered admission to CSULB.

You will qualify for regular admission when the university verifies that you have a CSULB qualifiable eligibility index and will have completed the comprehensive pattern of college preparatory subjects and, if applying to an impacted program, meet supplementary criteria.

Eligibility Index

The eligibility index is the combination of your high school grade-point average and your score on either the ACT or the SAT. Beginning with admission for Fall 2004, your grade-point average is based on grades earned in courses taken during your final three years of high school that satisfy the comprehensive pattern of college preparatory subject requirements, and 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; "B," 4 points; and "C," 3 points.

You can calculate the index by multiplying your grade-point average by 800 and adding your total score on the SAT I. If you took the ACT, multiply your grade-point average by 200 and add ten times the ACT composite score (add 2 points to the ACT score you received if taken prior to October, 1989). If you are a California high school graduate (or a resident of California for tuition purposes), you need a minimum index of 2900 using the SAT I or 694 using the ACT to be considered for admission.

If you neither graduated from a California high school nor are a resident of California for tuition purposes, you need a minimum index of 3502 (SAT I) or 842 (ACT; add 2 points to your ACT score if taken prior to October, 1989). Graduates of secondary schools in foreign countries must be judged to have academic preparation and abilities equivalent to applicants eligible under this section.

California State University, Long Beach requires all applicants for freshman admission to submit test scores from the SAT I or ACT, regardless of your 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.

Social Science - 2 years to include 1 year of U.S. History and/or Government

English - 4 years

Mathematics - 3 years to include algebra, geometry, and intermediate algebra

U.S. History or U.S. History and Government - 1 year

Science - 2 years with laboratory to include 1 year of biological science and 1 year physical science

Foreign Language - 2 years in the same foreign language (subject to waiver for applicants demonstrating equivalent competence).

Visual and Performing Arts - 1 year to include art, dance, drama/theater, or music

Electives - 1 year selected from the areas above.

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 expected of students who complete two years of foreign language study. Consult with your school counselor or any CSU campus admission or relations with schools office for further information.

Subject Requirement Substitution for Students with Disabilities

Applicants with disabilities are encouraged to complete college preparatory course requirements if at all possible. If an applicant is judged unable to fulfill a specific course require-

ment because of his or her disability, alternate college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by the applicant's academic advisor or guidance counselor in consultation with the director of a CSU disabled student services program. Although the distribution may be slightly different from the course pattern required of other students, students qualifying for substitutions will still be held for 15 units of college preparatory study. Students should be aware that course substitutions may limit later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please call the Director of Disabled Student Services at (562) 985-5401.

Honors Courses

Grades, in up to eight semester courses designated as honors courses in approved subjects and taken in the last two years of high school, receive additional points in grade-point average calculations. Each unit of A in approved courses will receive a total of 5 points; B, 4 points; C, 3 points; D, 1 point; and none for F grades.

High School Students — Young Scholars Program

Students still enrolled in high school will 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 a given program and does not constitute the right to continued enrollment. Please contact the Office of University Outreach and School Relations for more information.

Provisional Admission

California State University, Long Beach may provisionally admit first-time freshman applicants based on their academic preparation through the junior year of high school and planned for the senior year. The campus will monitor the senior year of study to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school. All accepted applicants are required to submit an official transcript of all college level work completed. Campuses will rescind admission for all students who are found not to be eligible after the final transcript has been evaluated.

California State University, Long Beach may provisionally 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.

Transfer Applicants

If you have completed college units after graduation from high school, you are considered a transfer student. Students who have completed 55 or fewer transferable semester college units (83 quarter units) by the established deadlines are considered lower-division transfer students. CSULB does not currently accept applicants at the lower-division level. Students who have completed 56 or more transferable semester college units (84 quarter units) by the established deadlines are considered upper division transfer students. (See Undergraduate Requirement Deadlines above.)

All transfer applicants are required to apply to a specific major. If the transfer applicant selects a major that is impacted, the higher requirements for that major must be met. If the student does not meet those requirements but meets the CSULB minimum transfer admission requirements, the student will be allowed to select a non-impacted major or will be offered redirection to another CSU campus. Transfer applicants seeking admission to an impacted major must apply to the University during the initial filing period and may be required to submit additional information to the department by the deadline established by the department.

You will qualify for admission to a non-impacted major as an upper-division transfer student if you meet the following standards prior to transfer:

1. Have completed 56 or more transferable units (84 quarter units).
2. Have a college grade-point average of at least a 2.0 or better (2.4 for non-California residents) in all transferable college units attempted.
3. Are in good standing at the last college or university attended.
4. Have completed at least 30 semester units (45 quarter units) of courses equivalent to general education requirements with a grade of "C" or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) of general education, college level mathematics.

Lower-Division Transfer

California State University, Long Beach does not admit lower-division transfer students.

Test Requirements

Freshman applicants must submit scores directly to CSULB from either the ACT or the SAT I of the College Board. You should take the test no later than October or November. Registration forms and the dates for the SAT I or ACT are available from high school or college counselors or from a CSU campus testing office. Or students may write to or call:

The College Board (SATI)	ACT Registration Unit
Registration Unit, Box 6200	P.O. Box 414
Princeton, NJ 08541-6200	Iowa City, Iowa 52243
(609) 771-7588	(319) 337-1270
www.collegeboard.org	www.act.org

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 score of a minimum of 500 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 173 or above), 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 56 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 CSULB's American Language Institute's Intensive English Language Program.*

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.

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 Assistant Vice President of Enrollment Services based on the recommendations of the appropriate campus committees.

Systemwide Placement Test Requirements

The California State University requires each entering undergraduate, except those who qualify for an exemption, to 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. They are designed to identify entering students who may need additional support in acquiring basic 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 and/or ELM at their local CSU campus. Questions about test dates and registration materials may be addressed to Testing and Evaluation Services, Brotman Hall (BH) - 216.

English Placement Test (EPT)

The EPT is designed to assess the level of reading and writing skills of entering undergraduate students so that they can be placed in appropriate baccalaureate-level courses. The CSU EPT must be completed by all entering undergraduates, with the exception of those who present proof of one of the following:

- A score of 550 or above on the verbal section of the College Board SAT I Reasoning Test taken April 1995 or later.
- A score of 24 or above on the enhanced ACT English Test taken October 1989 or later.
- A score of 680 or above on the re-centered and adjusted College Board SAT II: Writing Test taken May 1998 or later.
- A score of 3, 4, or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Scholastic Advanced Placement program.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) written communication requirement, provided such course was completed with a grade of "C" or better.

To file for one of the above exemptions, you may obtain an Exemption Form from Testing and Evaluation Services (562) 985-4007. Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Enrollment Services or from Testing and Evaluation Services. EPT registration does not require a fee.

*NOTE: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II, respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams have been scored on a new scale.

Entry-Level Mathematics (ELM) Examination Placement

The ELM examination is designed to assess the skill levels of entering CSU students in the areas of mathematics typically covered in three years of rigorous college preparatory mathematics courses in high school (Algebra I, Algebra II, and Geometry). The CSU ELM must be completed by all entering undergraduates, with the exception of those who present proof of one of the following:

- A score of 550 or above on the mathematics section of the College Board SAT I Reasoning Test or on the College Board SAT II Mathematics Tests Level I, IC (Calculator), II, or IIC (Calculator).
- A score of 23 or above on the American College Testing Mathematics Test.
- A score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC) or Statistics examination.
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) quantitative reasoning requirement, provided such course was completed with a grade of "C" or better.

Information bulletins and registration materials for the EPT and ELM will be mailed to all students subject to the requirements. Required exams will be indicated in the Letter of Admission. The materials may also be obtained from the Office of Enrollment Services or Testing and Evaluation Services. There is a \$16.00 registration fee for the ELM.

Writing Proficiency Examination (WPE)

All candidates for degrees and certificates must demonstrate competency in writing skills as a requirement for graduation. At CSULB every student must pass the Writing Proficiency Examination (WPE) to be certified proficient in written composition in English.

The Writing Proficiency Examination is a junior-year requirement. The test must be taken by the end of the semester in which an undergraduate student earns 65 or more units. Transfer students with 65 or more units must take the WPE within the first semester of residency at CSULB.

Undergraduate students who do not attempt the test by the time they attain 65 units will have a hold placed on their registration. Registration for the test does not by itself release this hold. The registration hold will not be released until two weeks after the test date. A request for deferment, for compelling reasons, can be filed at the Office of Testing and Evaluation Services, BH-216, (562) 985-4007. In certain circumstances, a contract can be submitted to release a registration hold temporarily. Students must attempt the WPE prior to filing a Request to Graduate.

The responsibility for acquiring the skills necessary to pass the examination is the student's. Regular courses to improve writing skills are available in the University or through University College and Extension Services. Please see WPE Preparation and Review, in the section of the catalog called "Undergraduate Programs." Counseling and other assistance are available through the WPE Advising Center, located in the Learning Assistance Center, Library East-012.

The examination may be retaken as many times as necessary. However, students who have failed the WPE twice must seek advisement from the WPE Advisory Center and show evidence that they have followed advisor recommendations regarding coursework, tutoring, or other assistance with English language skills before they will be allowed to register for a third attempt. Two 3-hour workshops are offered just prior to each test administration. Information regarding the administration of this examination may be obtained from the Office of Testing and Evaluation Services, BH-216, (562) 985-4007. To cover the costs of administration and scoring, a fee will be charged each time the examination is taken.

Graduate and Postbaccalaureate Application Procedures

All graduate and postbaccalaureate applicants (e.g., joint PhD and EdD applicants, master's degree applicants, those seeking credentials, and those seeking certificates) must file a complete graduate application as described in the graduate and postbaccalaureate admission booklet. Applicants seeking a second bachelor's degree should submit the undergraduate application for admission. Postbaccalaureate students who wish to continue their education for personal enrichment but without seeking a degree, credential, or certificate may only enroll through University College and Extension Services. CSULB does not admit postbaccalaureate unclassified students. Applicants who completed undergraduate degree requirements and graduated the preceding term or graduate students seeking to change their degree program are also required to complete and submit an application and the \$55 nonrefundable application fee. Since applicants for postbaccalaureate programs may be limited to the choice of a single campus on each application, redirection to alternate campuses or later changes of campus choice will be minimal. To be assured of initial consideration by more than one campus, it will be necessary to submit separate applications (including fees) to each. Applications may be obtained from the Admissions Office of any California State University campus in addition to the sources noted for undergraduate applications. An electronic version of the CSU graduate application is available on the World Wide Web at: <http://www.csumentor.edu>.

Graduate and Postbaccalaureate Admission Requirements

Graduate and postbaccalaureate applicants may apply for a degree objective, a credential or certificate 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 postbaccalaureate studies at CSULB are in accordance with university regulations as well as Title 5, chapter 1, subchapter 3 of the California Code of Regulations. Specifically, a student is to: (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 is to 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 attained a grade-point average of at least 2.5 (A = 4.0) in the last 60 semester (90 quarter) units attempted (excluding lower-division and extension coursework taken after the degree); 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.

If you meet the minimum requirements for graduate and postbaccalaureate studies, you will be considered for admission in one of the three following categories:

Postbaccalaureate Unclassified – To enroll in graduate courses for professional or personal growth, you must be admitted as a postbaccalaureate unclassified student. By meeting the general requirements, you are eligible for admission as a postbaccalaureate unclassified student. Some departments may restrict enrollment of unclassified students because of heavy enrollment pressure. Admission in this status does not constitute admission to, or assurance of consideration for admission to, any graduate degree or credential program; or

Postbaccalaureate Classified – If you wish to enroll in a credential or certificate program, you will be required to satisfy professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus; or

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

Graduate Classified – To pursue a graduate degree, you will be required to fulfill all of the professional, personal, scholastic, and other standards, including qualifying examinations, prescribed by the campus.

Graduate and Postbaccalaureate TOEFL Requirement

All graduate and postbaccalaureate 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. These students must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL) (applicants taking the Computer-Based Test of English as a Foreign Language must present a score of 213 or above), 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 levels 5 and 6 of the American Language Institute Program.

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.

Auditors

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

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.

Adult Students

As an alternative to regular admission criteria, an applicant who is twenty-five years of age or older may be considered for admission as an adult student if he or she meets all the following conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development or the California High School Proficiency Examination).
2. Has not been enrolled in college as a full-time student for more than one term during the past five years.
3. If there has been any college attendance in the last five years, has earned a "C" average or better in all college work attempted.

Consideration will be based upon a judgment as to whether the applicant is as likely to succeed as a regularly admitted freshman or transfer student and will include an assessment of basic skills in the English language and mathematical computation.

Senior Citizen Education Program

California State University Long Beach, is pleased to continue the Senior Citizen Education Program on campus. This program enables eligible California residents who are 60 years of age or older to enroll as regular students at a cost of

\$3.00 per semester. The program, which was founded at CSULB, has been in operation since 1975. Individuals are attending courses in a variety of subject areas and class levels from freshman through graduate standing.

Note: Regular admission standards apply for those individuals seeking a degree. Requests to waive the application filing fee must accompany the application. Once admitted to the University, registration information will be sent to the student advising them of the procedures for fee payment and the dates that they may register. Courses are available to program participants approximately three weeks before the beginning of each semester on a "space available" basis. Due to high enrollment and impacted programs some courses may not be available for participation by Senior Citizens.

Participants in the Senior Citizen Education Program are required to maintain good academic standing and are subject to all university policies, procedures, late fee payments and deadlines.

Returning 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 are subject to the General Education requirements in effect at the time of their re-entry to the University with the following exceptions:

Previous CSULB students who completed their entire lower-division general education package before returning to CSULB, will not be held for additional general education requirements except for the 9 upper-division capstone general education units.

Previous CSULB students who were under the pre-1981 general education requirements AND who before leaving the University completed 90 or more units, including 24 general education units in categories 1-5 (with at least one course in each area) will not be held to post-1981 general education requirements other than the requirement of 9 upper-division units. Such students may satisfy the general education mandate by completing the pre-1981 40-unit requirements appropriately and completing the 9 unit upper-division requirement (overlap is permitted).

California Community College transfer students who provide official full certification of general education requirements will not be held for additional general education requirements except for the 9 upper-division capstone general education units including the Human Diversity requirement.

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 Information Agency (USIA) 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.

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 Admissions Office regarding specific policies governing hardship admission. (See Admissions Procedures and Policies at the beginning of this Section.)

Concurrent Enrollment

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 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.

Upper-division students wishing to have concurrent enrollment at CSULB and another institution outside of The California State University system must request permission from Enrollment Services.

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.

Other Applicants

Applicants not admissible at this time under any of the preceding provisions are advised to enroll in another institution, such as a community college, to prepare for admissibility at a future date.

Open University (Adjunct Enrollment) — Through Open University, students who are NOT matriculated in the University may take regular University classes for academic credit on a "seat available" basis with permission of the department chairperson and the course instructor. Open University enrollment does NOT constitute admission to CSULB. Students may apply up to 24 units of Open University Credit toward a baccalaureate degree. At the option of the appropriate college

and department, up to 6 units of Open University Credit may be applied to a graduate degree. This limit may be increased to 9 units in some instances. For specifics, check with the department chair. For more information call University College and Extension Services at (562) 985-5561.

University College and Extension Services — University College and Extension Services (UCES) programs are designed to meet the personal and professional development learning needs of the community. Through its credit and non-credit classes, certificate programs, seminars and special programs, teleconferences, and customized work-site training, UCES brings the resources of CSULB to individuals and groups in formats convenient to their life/work situations. UCES' Integrated Distance Education for Adult Students (IDEAS) continuously develops courses for delivery on the World Wide Web. Unless they are offered in fulfillment of a degree program, Special Sessions courses do not require admission to CSULB. UCES also administers the summer and winter session programs, in addition to a variety of credit courses throughout the academic year. For a free bulletin of current offerings, call (562) 985-5561 or stop by the UCES office, located at Foundation Education Center (FND) - 104, 6300 State University Drive.

Visitors

The University restricts attendance in class sessions to those who have been formally registered in the course and who maintain good standing as students. Please see "Audit" and "Visitors to Classes" under General Regulations.

Summer Session and Winter Session Students

Summer and Winter Sessions enrollment is open to all CSULB students, 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.

Registration in Summer as an Open University student does not insure the privilege of enrolling in the fall or spring semester. To register for Summer and Winter Sessions courses, students should contact University College and Extension Services at (562) 985-5561.

Student Orientation, Advising and Registration (SOAR)

Newly admitted freshman and transfer students are strongly encouraged to participate in the Student Orientation, Advising, and Registration (SOAR) program. Participation affords students an opportunity to receive initial academic advising concerning general education and major requirements, assistance with course selection and the ability to register earlier for classes. An orientation to student services and campus resources is also provided. Registration brochures are mailed to newly admitted students. Information can also be obtained on the department's web site (www.csulb.edu/soar). There is a fee associated with the program that includes the cost of the University *Catalog*, the *Schedule of Classes*, other materials, a parking permit and lunch.

Registration Procedures

When admission or re-admission requirements have been satisfied, the student is eligible to register for classes at the University. Undergraduate students new to the University will

receive information about the Student Orientation, Advising and Registration Program (SOAR) which is designed to help the new student with registration procedures. It should be noted that no new undergraduate student will be allowed to register for classes prior to SOAR. Registration for students not participating in SOAR will be conducted after all of the SOAR workshops are concluded.

Students returning to CSULB after an approved educational leave will receive registration information in the mail. Returning students should purchase the *Schedule of Classes* in the University Bookstore before registration. Registration dates, times and detailed instructions are included in the *Schedule of Classes* and at www.csulb.edu/enrollment.

Students are not permitted to attend any class for which they have not officially registered. The deadline to register is the end of the third week of classes.

NOTE: Admission and readmission deadlines are much earlier.

Adding Classes

Students may add classes by Voice Response Registration (VRR) for the first two weeks of the semester. 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.

Students receiving permission to add classes by VRR or who have been added to an instructor's wait list or roster must complete the add procedures by the dates listed each semester in the *Schedule of Classes*. No request to add classes will be considered after the third week of the semester unless there is an approved technical error.

Note: Instructors, advisors and departments cannot add students into classes. The add procedures must be completed by the student.

Advanced Placement

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.

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 a grade of 5 or higher is determined by the faculty of the appropriate department subsequent to careful review of course syllabi.

For questions or information, please call Enrollment Services at (562) 985-5471 or consult your department.

Credit by Examination

Students may challenge courses by taking examinations developed at the campus. Credit will be awarded to those who pass them successfully. The Petition to Establish Credit by Examination for Unit Credit is available in the department offering the course and in Enrollment Services. Approval by the department offering the examination is required prior to registering for the course. The examination must be conducted within the first three weeks of classes. If a student does not take the examination at the time offered or does not pass the

examination, he or she may either continue in the course as a regular student or withdraw officially from the course, following the procedures for withdrawal pertaining to all courses. (See the current *Schedule of Classes*.) For a student passing the examination, a grade of CR will be recorded at the end of the semester. Please refer also to Unit Credit by Examination in the General Regulations section of this *Catalog*.

Credit for Noncollegiate Instruction

The California State University 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.

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 new Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. Information concerning the regulation is available from Academic Affairs, (562) 985-4128.

Intrasystem and Intersystem Enrollment Programs

Students enrolled at any CSU campus will have access to courses at other CSU campuses on a space available basis unless those campuses or programs are impacted. This access is offered without students being required to be admitted formally to the host campus and sometimes without paying additional fees. Although courses taken on any CSU campus will transfer to the student's home CSU campus as at least elective credit, students should consult their home campus academic advisors to determine how such courses may apply to their 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 Enrollment Services.

CSU Concurrent Enrollment – matriculated students in good standing may enroll at both their home CSU campus and a host CSU campus during the same term. Credit earned at the host campus is automatically reported to the home campus to be included on the student's transcript at the home campus. Full-time fees are payable at the home campus regardless of the total number of units earned at both campus.

CSU Visitor Enrollment – matriculated students in good standing enrolled at one CSU campus may enroll at another CSU campus for one term. Credit earned at the

host campus is reported automatically 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 for one course per term at another CSU, UC, or community college and submit a written request with payment for a transcript of record be sent to the home campus.

Health Screening

Entering CSULB 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: All new and readmitted students born after January 1, 1957 must provide proof of full immunization against measles and rubella prior to enrollment. Hepatitis B: All new students who will be 18 years of age or younger at the start of their first term at CSULB 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 the 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 one from contracting the disease and whether or not he or she has chosen to receive the vaccination. These are not admission requirements, but shall be required of students as conditions of enrollment in CSU.

The California State University has vaccination requirements for new students. Immunity must be shown for:

1. Measles and Rubella – Required of all new students *born 1957 or later* as ordered by the California State University. Required of all students, regardless of age, who reside in residence halls, students whose primary and secondary schooling were obtained outside the United States, students who are enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children or taking place in a hospital or health care setting.
2. Hepatitis B - Required of all new students *who are 18 or younger* on their first day of class, as mandated by California State Law and the California State University.

References: CSU Executive Order No. 730 Immunization Requirements / California Assembly Bill 1107.

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. You may receive the immunizations from your health provider, HMO, or Public Health Department at low or no cost. You may receive the immunizations at Student Health Services: Hepatitis B is at Student Health Services cost for each injection (series of 3); Measles and Rubella is at no charge. Acceptable proof may be by records from high school, private health care providers, and local health departments. Failure to comply will result in a "hold" on future registration.

Measles and Rubella are childhood diseases with potentially serious effects on adult health. Hepatitis B is a viral infec-

tion that affects the liver with potentially serious life long health consequences. Vaccination has been shown to be safe and effective in providing protective immunity through a series of three shots given over a four to six month period. Vaccination is available on request at Student Health Services. More complete information is available by phone at (562) 985-4771, or on the Health Services web site at www.csulb.edu/centers/shc; for recorded information, call the Immunization Hotline at (562) 985-5411. Other useful vaccine information is available through the United States Centers for Disease Control National Immunization Program (web site www.cdc.gov/nip/.) Specific vaccine information statements may be found at www.cdc.gov/nip/publications/VIS/default.htm.

Reservation

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 appropriate based on an applicant's suitability and the best interests of the University.

Articulation/California Articulation Number (CAN) System

Lower division course-to-course articulation is a formal, written faculty-approved agreement that identifies courses (or sequences of courses) that are comparable to, or acceptable in lieu of, specific course requirements between the "sending" campus and the "receiving" campus. Course articulation is the "roadmap" that allows a smooth academic transition between the segments of higher education in California.

California State University, Long Beach participates in the CAN System. The CAN system is a cross-reference course identification system designed to identify lower-division, transferable courses commonly presented by transferring students. The CAN system not only simplifies the transfer process, but makes it easier for students, faculty, and counselors.

The development of a written faculty-approved bilateral articulation agreement for each course with four public four-year institutions provides the foundation of the CAN system. Articulation agreements for each course are periodically reviewed with each campus by the faculty and Department Chairs.

The CAN system is based on bilateral course articulation – courses considered to be comparable, not necessarily identical, and acceptable "in lieu of" each other. The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. Example: CAN FCS 2 on one campus will be accepted for CAN FCS 2 on another participating campus. Each participating campus not only retains and uses its own course number, prefix, and title, but also adds the appropriate CAN designation parenthetically in its publications when it has qualified the course.

CSULB now articulates some pre-baccalaureate courses. For further information contact the University Articulation Office, (562) 985-8221 or 985-7171.

CAN Number

CSU, Long Beach Course

CAN AJ 2	CRIM 101	CRIMINAL JUSTICE SYSTEM
CAN ANTH 2	ANTH 110	INTRO TO PHYSICAL ANTH
CAN ANTH 4	ANTH 120	INTRO TO CULTURAL ANTH
CAN ANTH 6	ANTH 140	INTRO TO ARCHAEOLOGY
CAN ART 2	AH 115B	FOUNDATION OF ART HISTORY II
CAN ART 4	AH 115C	FOUNDATION OF ART HISTORY III
CAN ART 6	ART 151A	BEG CERAMICS: HANDBLDG
CAN ART 8	ART 181	FOUNDATION DRAWING
CAN ART 10	ART 187	FOUNDATION PAINTING
CAN ART 12	ART 263	BEGINNING SCULPTURE
CAN ART SEQ A	AH 115B+115C	FOUNDATION ART II+III
CAN BIOL 12	BIOL 207	HUMAN PHYSIOLOGY
CAN BIOL 14	MICR 200 or MICR 211	GEN MICR/HLTH PROFESSIONAL GEN MICROBIOLOGY
CAN BIOL SEQ A	BIOL 211 A & B	BIOL SCIENCES I & II
CAN CHEM 2	CHEM 111A	GENERAL CHEMISTRY
CAN CHEM 4	CHEM 111B	GENERAL CHEMISTRY
CAN CHEM SEQ A	CHEM 111A+111B	GENERAL CHEMISTRY
CAN DRAM 6	THEA 112	BEG VOICE/SPEECH
CAN DRAM 14	THEA 144	STAGE MAKE UP I
CAN ECON 2	ECON 100	PRIN OF ECON (MACRO)
CAN ECON 4	ECON 101	PRIN OF ECON (MICRO)
CAN ENGL 2	ENGL 100	COMPOSITION
CAN ENGL 8	ENGL 250A	SURVEY ENGLISH LIT
CAN ENGL 10	ENGL 250B	SURVEY ENGLISH LIT
CAN ENGL SEQ B	ENGL 250A+250B	SURVEY ENGLISH LIT
CAN ENGR 2	M E 172	ENGR DESIGN GRAPHICS
CAN ENGR 6	E E 211+ E E 211L	ELEC & ELECTRONIC CIRCUITS I ELECTRIC CIRCUITS LAB
CAN ENGR 8	C E 205	ANALYTICAL MECH I (STATICS)
CAN ENGR 10	C E 225	SURVEY - MAPPING
CAN ENGR 12	E E 211	ELEC & ELECTRONIC CIRCUITS I
CAN FCS 2	FCS 132	INTRODUCTORY NUTRITION
CAN FCS 8	FCS 235	PRIN OF FOOD PREPARATION
CAN FCS 10	FCS 154	FUND APPAREL PROD/DESIGN
CAN FCS 14	FCS 111	PRESCHOOL CHILD
CAN FREN 2	FREN 101A	FUNDAMENTALS OF FRENCH
CAN FREN 4	FREN 101B	FUNDAMENTALS OF FRENCH
CAN FREN 8	FREN 201A	INTERMEDIATE FRENCH
CAN FREN 10	FREN 201B	INTERMEDIATE FRENCH
CAN FREN SEQ A	FREN 101A+101B	FUNDAMENTALS OF FRENCH
CAN FREN SEQ B	FREN 201A+201B	INTERMEDIATE FRENCH
CAN GEOG 2	GEOG 140	INTRO TO PHYSICAL GEOG
CAN GEOG 4	GEOG 160	INTRO TO HUMAN GEOG
CAN GEOL 2	GEOL 102+104	GENERAL GEOL+GEOL LAB
CAN GEOL 4	GEOL 240	HISTORICAL GEOL
CAN GERM 4	GERM 101B	FUNDAMENTALS OF GERMAN
CAN GOVT 2	POSC 100	INTRO TO AMERICAN GOVT
CAN HIST 2	HIST 131	EARLY WESTERN CIVILIZATION
CAN HIST 4	HIST 132	MODERN WEST CIVILIZATION
CAN HIST 8	HIST 172	EARLY US HISTORY
CAN HIST 10	HIST 173	RECENT US HISTORY
CAN HIST 16	HIST 212	WORLD SINCE 1500
CAN HIST SEQ A	HIST 131+132	EARLY/MOD WEST CIVILIZATION
CAN HIST SEQ B	HIST 172+173	EARLY/RECENT US HISTORY
CAN JOUR 2	JOUR 120	NEWS WRITING
CAN JOUR 4	JOUR 110	INTRO TO MASS COMM
CAN MATH 2	MATH 103	MATHEMATICAL IDEAS
CAN MATH 4	MTED 110	MATH FOR ELEM TEACHERS I
CAN MATH 8	MATH 101	TRIGONOMETRY
CAN MATH 12	MATH 114	FINITE MATH
CAN MATH 16	MATH 117	PRECALCULUS MATHEMATICS
CAN MATH 18	MATH 122	CALCULUS I
CAN MATH 20	MATH 123	CALCULUS II
CAN MATH 22	MATH 224	CALCULUS III
CAN MATH 26	MATH 247	INTRO TO LINEAR ALGEBRA
CAN MATH 30	MATH 119A	SURVEY OF CALCULUS I
CAN MATH 32	MATH 119B	SURVEY OF CALCULUS II
CAN MATH 34	MATH 115	CALCULUS FOR BUSINESS
CAN MATH SEQ B	MATH 122+123	CALCULUS I+II

CAN Number

CSU, Long Beach Course

CAN MATH SEQ C	MATH 122+123+224	CALCULUS I+II+III
CAN PHIL 2	PHIL 100	INTRO TO PHILOSOPHY
CAN PHIL 4	PHIL 160	INTRODUCTORY ETHICS
CAN PHIL 6	PHIL 170	ELEMENTARY LOGIC
CAN PHYS 2	PHYS 100A	GENERAL PHYSICS
CAN PHYS 4	PHYS 100B	GENERAL PHYSICS
CAN PHYS SEQ A	PHYS 100A+100B	GENERAL PHYSICS
CAN PSY 2	PSY 100	GENERAL PSYCHOLOGY
CAN REC 2	REC 141	INTRO LEISURE SERVICES
CAN SOC 2	SOC 100	PRIN OF SOCIOLOGY
CAN SOC 4	SOC 142	SOCIAL TRENDS & PROBLEMS
CAN SPAN 2	SPAN 101A	FUNDAMENTALS OF SPANISH
CAN SPAN 4	SPAN 101B	FUNDAMENTALS OF SPANISH
CAN SPAN 8	SPAN 201A	INTERMEDIATE SPANISH
CAN SPAN 10	SPAN 201B	INTERMEDIATE SPANISH
CAN SPAN SEQ A	SPAN 101A+101B	FUNDAMENTALS OF SPANISH
CAN SPAN SEQ B	SPAN 201A+201B	INTERMEDIATE SPANISH
CAN SPCH 4	COMM 130	ESSENTIALS OF PUBLIC SPEAK
CAN SPCH 6	COMM 131	ESSENTIALS OF ARGUMENT
CAN SPCH 8	COMM 110	INTERPERSONAL COMM
CAN SPCH 10	COMM 132	SMALL GROUP DISCUSSION
CAN STAT 2	MATH 180	ELEMENTARY STATISTICS

2003 – 2004 ACADEMIC CALENDAR

Please note: This is not intended to be construed as an employee work calendar.

AUGUST 2003

S	M	T	W	TH	F	S
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SEPTEMBER

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OCTOBER

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DECEMBER

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JANUARY 2004

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JULY

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FALL 2003 SEMESTER

- August 25 First Day of the Semester
- August 25 - 28 Departmental Advising
- September 1 Labor Day (campus closed)
- September 2 First Day of Classes
- October 13 Columbus Day (campus open)
- November 11 Veterans Day (campus open)
- November 27 and 28 Thanksgiving Day (campus closed)
- December 12 Last Day of Classes
- December 15 - 20 Final Examinations
- December 24 Last Day of the Semester
- December 25 - January 23 Winter Recess

WINTER 2004 SESSION

- January 5 First Day of Classes
- January 19 Martin Luther King, Jr. Holiday (campus closed)
- January 23 Last Day of Classes

SPRING 2004 SEMESTER

- January 26 First Day of the Semester
- January 26 Departmental Advising
- January 26 First Day of Classes
- February 16 Presidents' Day (campus closed)
- March 31 Cesar Chavez Day (campus closed)
- April 5 - 9 Spring Recess (classes not in session)
- May 14 Last Day of Classes
- May 17 - 22 Final Examinations
- May 26 - 28 Commencements
- May 28 Last Day of the Semester
- May 31 Memorial Day (campus closed)

SUMMER 2004 SESSION

- First Session June 1 - July 12
- Second Session June 21 - July 30
- July 5 Independence Day (campus closed)
- Third Session July 13 - August 20



P²_h
Peterson
Hall of Science



ACCOUNTANCY

College of Business Administration

Department Chair

Steven A. Fisher

Department Office

College of Business Administration (CBA) 411

Telephone

(562) 985-4653

Website

www.csulb.edu/depts/accounting/

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John Lacey

Sitikantha Mahapatra

Jae K. Shim

Associate Professor

Loc Nguyen

Administrative Support Coordinator

Kellee Zbornak

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For all degree requirements see Business Administration.

Courses (ACCT)

Lower Division

201. Elementary Financial Accounting (3)

Introduction to financial accounting theory, practice. For business majors. Laboratory and/or class computer applications are a requirement of the course.

Upper Division

300A-B. Intermediate Accounting (4,4)

Prerequisites: 300A: ACCT 201 or equivalent with a grade of "C" or better; 300B: ACCT 300A with a grade of "C" or better. Accounting theory including recording, valuation, and statement presentation of assets, liabilities, capital, earnings; funds statements; financial analysis; compound interest theory and applications. Laboratory and/or class computer applications are a requirement of the course.

310. Cost Accounting for Managers (3)

Prerequisites: ACCT 201 or equivalent. Use and interpretation of financial statements; evaluation of accounting information systems; accounting for and analysis of costs; managerial use of accounting data for planning and decision making. Not open to accounting majors for course or unit credit. Lab and/or class computer applications are a requirement of the course.

320. Cost Accounting (4)

Prerequisites: ACCT 201 or equivalent 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. Laboratory and/or class computer applications are a requirement of the course.

400. Advanced Accounting (4)

Prerequisites: ACCT 300B with grade of "C" or better. Specialized problems in partnership and corporate accounting, consolidations, foreign currency transactions and translations, fund accounting and selected topics. Laboratory and/or class computer applications are a requirement of the course.

451. Federal Tax Law II (4)

Prerequisites: any upper division accountancy course with a grade of "C" or better. Federal income taxation of partnerships, corporations, s corporations, personal and family tax planning, and ethics. Laboratory and/or class computer applications are a requirement of the course.

465. International Accounting (4)

Prerequisites: Any 300-level accounting course with grade of "C" or better. Contemporary accounting theory and practice from an international perspective. Comparative accounting systems in various countries based on prevailing practice in the United States. Analysis of international accounting and auditing standards. Laboratory and/or class computer applications are a requirement of the course.

470. Auditing (4)

Prerequisites: ACCT 300A, 300B, 320 with grades of "C" or better. Problems of verification, valuation and presentation of financial information in reports covered by the opinion of an independent public accountant. Major concepts of operational auditing and its relationship to the independent audit. Responsibilities of the public accountant, internal auditor and rules of professional conduct. Laboratory and/or classroom computer applications are a requirement of the course.

480. Accounting Systems and Data Processing (4)

Prerequisites: IS 240 or IS 300, ACCT 300B and 320 with grades of "C" or better. Course is designed to familiarize students with the accounting information systems development process. Major topics include analysis, design, development and implementation of accounting information systems. Consideration will be given to the automation of accounting information systems through the use and application of computers. Laboratory and/or classroom computer applications are a requirement of the course.

493. Accounting Internships (3)

Prerequisite: ACCT 300B, Accounting GPA 3.0, overall GPA 3.0. Students work in public accounting or accounting divisions of private industry or governmental agencies to gain accounting experience in real world situations. Class seminar analysis, evaluation of academic theory in terms of the real world environment

495. Selected Topics (I-4)

Consent of instructor. Topics of current interest in accounting selected for intensive study. Course may be repeated for a maximum of eight units. Topics will be announced in the *Schedule of Classes*.

497. Directed Studies (I-4)

Prerequisites: Consent of instructor and department Chair, on Dean's List and 3.0 GPA or higher in accounting. Individual projects, study and research of advanced nature in accounting.

660. International Accounting (3)

International accounting theory and practice. Comparison of United States GAAP and auditing standards with IAS and practice in other countries. Letter grade only (A-F).

670. Contemporary Problems in Financial Reporting (3)

Examination of Generally Accepted Accounting Principles and literature dealing with financial accounting and reporting. Emphasis will be on current issues facing corporations and the accounting profession. Letter grade only (A-F).

680. Financial Statement Analysis (3)

Understanding and use of financial reporting for making investing and lending decisions. Letter grade only (A-F).

695. Special Topics (1-3)

Prerequisites: Consent of instructor. Topics to be announced in the *Schedule of Classes*. May be repeated once under a different topic. Letter grade only (A-F).

697. Directed Studies (1-3)

Prerequisite: MBA standing and consent of instructor. Individual study under the direction of the faculty.

Graduate Prerequisite Course

500. Managerial and Financial Accounting (3)

Prerequisite: MBA standing required. Evaluation of accounting systems, preparation of financial statements, computer information processes and analysis and interpretation of accounting information as an aid to business decisions. Laboratory and/or class computer applications are a requirement of the course.

Graduate Level

610. Advanced Cost Accounting, Budgeting and Control (3)

Prerequisite: ACCT 500 or equivalent with a grade of "C" or better. Problems in planning, budgeting and cost control for decision making from a quantitative analysis approach with emphasis on evaluation of the accounting information system. Laboratory and/or class computer applications are a requirement of the course. Not open to students with credit in ACCT 510.

620. Contemporary Problems in Management Accounting (3)

Examination of the literature on profit planning, control, and decision making. Current problems in management accounting; behavioral implications of management information systems; quantitative approaches to managerial accounting. Letter grade only (A-F).

630. Accounting Information Systems (3)

Information requirements and transaction processing procedures relevant to integrated accounting systems, including computer systems analysis, design, and controls. Letter grade only (A-F).

640. Tax Research and Planning (3)

The study of the primary sources of income tax law; their uses and interrelationships in researching problems arising under the federal tax laws. Research techniques will be applied to compliance and tax planning problems of individuals, business organizations, and estates and trusts. Analysis of the organization of the Internal Revenue Service and the procedures relating to audits, tax collections, criminal prosecutions, and federal tax litigation. Letter grade only (A-F).

650. Accounting for Governmental and Not-for-Profit Organizations (3)

Financial and managerial accounting concepts as they apply to organizations whose objectives are primarily to provide service rather than generate a profit. Letter grade only (A-F).



ACADEMIC ADVISING

University undergraduate academic advising services and academic departments are responsible for providing academic direction for new and continuing students. In addition, academic departments provide academic advising for graduate students.

Undergraduate advisors, both in advising service offices and in academic departments, assist students to develop educational plans that are compatible with students' interests, academic preparation and educational and career goals.

While advising offices mainly provide information and advise about general education, academic departments advise students about their major requirements and other important academic issues. Lists of faculty advisors, their locations and phone numbers appear each semester in the *Schedule of Classes*. Faculty advisors also provide academic advisement and information about minors, certificates, internships and masters programs. Students are advised to check with advisors often for current and relevant information.

The following listings are of advising services that are available to students. Some are involved in special programs. Some are major-specific such as Liberal Studies. The list also includes specific advising services such as the Academic Advising Center. All are anxious to assist students.

Advisement Centers on Campus

Academic Advising Center

The Academic Advising Center provides services to the general University student population as well as prospective CSULB students.

Center Services

- Provide advisement workshops for prospective, transfer, and adult reentry students
- Provide academic information for prospective freshmen and their parents
- Provide small group workshops for entering students
- Provide a home-base to undeclared students
- Provide total academic program planning for entering and continuing students
- Provide unofficial Degree Audits for entering and continuing students
- Provide General Education advising for continuing students
- Provide information, advisement and special evaluation services to adult reentry students
- Provide mandatory freshman workshops for second-semester class registration
- Provide assistance and information with and for the academic appeals process
- Provide academic probation/disqualification intervention services to high-risk students (in the "Strategies for Academic Success" program and in one-on-one sessions)

- Provide special advisement services to undeclared and pre-majors
- Provide the parent orientation program (POP) to the parents of entering students each summer

The Academic Advising Center is located in Library East, Room 124. The telephone number is (562) 985-4837. The Center is open for advising Monday - Thursday from 9:00 a.m. - noon and 1:00 p.m. - 5:00 p.m. and Friday from 9:00 a.m. - noon. Call for evening appointment availability. Hours may vary during the holidays and summer.

Center for Student Athlete Services

The Center for Student-Athlete Services (CSAS) provides support services for the NCAA Division I student-athletes. The CSAS staff provide total advisement on academic program planning to meet CSULB graduation requirements and NCAA eligibility requirements, appropriate course suggestions to meet general education and major requirements, and assist in the identification and clarification of educational and vocational goals.

The CSAS also provides the opportunity for freshmen and new transfer student-athletes to participate in transitional support programs designed to capitalize on the student-athletes' athletic skills, while learning to transfer those skills to classroom success. CSAS actively monitors student-athlete academic progress and provides referrals to various campus support services to enhance their academic performances.

The CSAS is open Monday, Wednesday, and Thursday from 8:00 AM to 5:00 PM; Tuesday from 8:00 AM to 3:00 PM; and Friday from 8:00 AM to 2:00 PM. CSAS is located in the Physical Education Building, PE -1, room 63. Students may call (562) 985-4777 for more information.

Educational Equity Services

Educational Equity Services has two advising components. They are as follows:

Educational Opportunity Program (EOP) is a state funded program that has developed special services to help students overcome the obstacles that may prevent them from furthering their education and reaching their potential. Students that are interested in being considered for EOP must declare their intentions on the University application at the time they apply to the University.

Student Support Services Program (SSSP) is a federally funded program designed to assist students in achieving their maximum potential in higher education. Students are referred to SSSP by faculty, staff and students of CSULB. Interested students apply directly to the program for participation. In addition to an academic need, one of the following must apply for a student to be eligible for SSSP services:

- Low income and first generation college student
- Physically disabled and/or learning disabled
- Low income only
- First generation only

Students should check with SSSP regarding their eligibility for program participation.

Educational Equity Services:

- Financial Aid Assistance
- Orientation to college-helping students adjust to the college environment
- Academic advising-guidance with graduation requirements, major and course selection
- Writing and college transition course (EOP 100)
- Individual counseling
- Peer advising
- Tutorial and supplemental instruction assistance covering a wide range of courses
- Career counseling
- Probation intervention
- Writing Proficiency Examination workshops
- Graduate placement information

Educational Equity Services is located in Liberal Arts (LA) 1-119. The telephone number is (562) 985-5637. Students are seen by appointment.

Pre-Baccalaureate Advising and Support Services

The Pre-Baccalaureate Advising and Support Services (PASS) provides advising as well as support to students in course placement and in developing the English and mathematics skills needed to prepare them for the required Freshmen-level English composition and/or mathematics courses. PASS does this by providing a combination of services.

Placement To receive information about placement into appropriate level courses and to maintain compliance with Executive Order 665, PASS monitors course placement by advising students into the following remedial and developmental courses: ENGL 001E, ASAM 001, B/ST 001, CHLS 001, ALP 145, ALP 150, MATH 001, and/or MATH 010. If placed in these courses, students must complete the remedial requirement within one year.

Tracking PASS monitors students' progress through the sequence of remedial and/or developmental English and math courses required for entrance into Freshmen-level English composition and/or mathematics courses. Our goal is to be sure that students are making progress and completing the ILE classes as stated in Executive Order 665.

Intervention If students have difficulty in any course while enrolled in the remedial/developmental English and/or math courses, PASS counselors can help students by recommending referrals as necessary such as tutoring, diagnostic testing, and learning skills strategies.

The Pre-Baccalaureate Advising and Support Services is located in Library East 14. The office is open from 9:00 a.m.-noon and 1:00 p.m.-5:00 p.m. Monday through Thursday and 9:00 a.m.-noon on Friday. The telephone number is (562) 985-7895.

Interdisciplinary Studies

Interdisciplinary Studies students can create an individualized program of study using courses from a variety of academic majors. Coastal protection, marine sports nutrition, biogeography, biomedical ethics and classical studies are among the many diverse areas of concentration recently pursued by students in the Interdisciplinary Studies Program.

The undergraduate degree is a combination of two or more disciplines representing at least 40 units developed in consultation with Faculty Advisors from the respective departments. The program also offers a Master of Arts and Master of Science degree in Interdisciplinary Studies.

The Interdisciplinary Studies Program is located in Library East 127. Call (562) 985-2396 for more information.

CSULB Learning Alliance

The Learning Alliance is a two-year academic program for students who seek an active, personalized college experience. It is designed to help first-time freshmen make a positive academic and social transition to CSULB. This learning community offers students a chance to take classes together, learn from challenging instructors and establish closer ties to CSULB through campus involvement. Students qualify for the program based upon test scores (SAT, ACT, and EPT) and their desire to become part of a community that enables them to make well-informed choices about majors and career/life goals.

Each fall, the Learning Alliance accepts 200 first-time freshmen to the program, which is open to all majors (declared and undeclared). New students enroll in two "connected" general education classes in the fall (a Social Science course and an English Composition or a Communications course) where faculty members work together to integrate course subject matter. In the spring, students enroll in additional "connected" general education classes. During each semester of the sophomore year, students take one general education class. As a result of these "connections," students have opportunities to make new friends and form study groups.

Specific benefits for Learning Alliance students include personalized academic advisement, guaranteed general education courses, support from professional staff members, student-centered professors, opportunities for campus involvement, and access to the Alliance student lounge and computer lab.

First-time freshmen are invited to apply for space in the Learning Alliance. You are eligible if you have less than 18 transferable units with a cumulative GPA of 2.0/greater, no units for classes we offer, and a SAT Verbal score of 550/greater or an EPT score of 148/greater (scores that place you in college-level Composition). Spaces are also available for students scoring at the English Review Level - 540/less on the SAT Verbal and an EPT score of 139-147. Applications are accepted on a first-come, first-served basis. For more information contact the Learning Alliance at (562) 985-7804, visit www.csulb.edu/depts/alliance/, or stop by LA4-202.

Department of Liberal Studies

The Department of Liberal Studies serves two distinct populations: 1) Those who are interested in becoming elementary teachers and 2) Those with more varied academic or career goals who would prefer a sound generalist program to one requiring early specialization. The General Education requirements for students majoring in Liberal Studies are unique. Liberal Studies is not only an approved major, but also an approved alternate general education program. In completing the Liberal Studies major, students concurrently satisfy general education.

The Department of Liberal Studies seeks to provide timely and accurate academic advising to all Liberal Studies Majors. To meet that goal, students wishing to declare Liberal Studies as their major must attend an open-file workshop in order to declare the major. Prior to attending this workshop, students must submit a complete set of transcripts of all college work completed (unofficial copies are fine), so that the Department can provide an official Summary of Credits for the major. After students attend the open-file workshop and are declared into the major, they may make appointments with well-trained student peer advisors, or if special circumstances are present, with the Department Director of Programs or Assistant Director. Walk in advising hours are also available each week during the academic year.

The Liberal Studies Office is located in Library East 127. During the academic year, the office is open from 9:00 a.m. to 5:00 p.m. Monday, Tuesday, and Thursday. Extended hours are available every Wednesday from 9:00 a.m. to 6:00 p.m., and from 9:00 a.m. to 1:00 p.m. on Friday. Hours may vary during holiday and vacation periods. Students may call (562) 985-4228 for more information.

The MESA Center

The MESA (Mathematics, Engineering, Science, Achievement) Center provides academic advisement and counseling services to the "historically" underrepresented students in all of the Engineering disciplines: Aerospace, Chemical, Civil, Computer Engineering and Computer Science, Electrical, Engineering Technology, and Mechanical Engineering. This includes the General Education and the upper-division requirements (also referred to as Interdisciplinary courses (IC)). The MESA Engineering staff members work directly with the engineering department undergraduate advisors to provide up-to-date information on all engineering course requirements and changes.

Academic advisement is available in the MESA Engineering Center by appointment and on a walk-in basis, as time permits. The Center is open Monday through Friday from 9:00 a.m. - 5:00 p.m. For additional information, call the MESA Center at (562) 985-8014 or stop by the office which is located in the Engineering 2, Room 300.

Parents' Orientation Program (POP)

POP is designed to inform parents about baccalaureate requirements, the University library, safety, financial aid, housing and other important University issues so they may better assist their children to success at CSULB. POP is presented by the Academic Advising Center. The telephone number for POP information is (562) 985-5458.

Strategies for Academic Success Program

(Probation Intervention)

This is a university-wide program designed for undergraduate students who are on academic probation (either the CSULB or all college cumulative grade-point average is below 2.0). The program includes information about university policies and procedures, the reasons students encounter academic problems, and, lastly, how and where to receive assistance from campus services and offices to be a successful student.

Any undergraduate whose CSULB or overall cumulative grade-point average (GPA) is below 2.0 may participate in the program. Declared graduate students and credential candidates who are on probation should contact their department for information and assistance.

Attendance in this program is not mandatory but it is highly recommended.

If you would like more information or if you would like to sign up for a workshop please call us at (562) 985-7847 or stop by the Academic Advising Center, located in Library East, Room 124. Workshops are scheduled at a variety of times during each semester.

Student Access to Science and Mathematics Center (SAS)

Student Access to Science and Mathematics Center (SAS) encourages and supports undergraduate and graduate students as they prepare for careers in the sciences and/or mathematics. There are many programs that combine to make up SAS. Two programs in particular which relate to academic advising are Science Safari to Success and EONS (Enrollment Orientation to the Natural Sciences). Science Safari and EONS are orientation programs for all incoming freshmen and transfer students. These programs welcome students to the College of Natural Sciences and Mathematics by providing academic advising, overview of career opportunities and degree programs, peer mentoring, and access to appropriate courses for students majoring in the sciences and/or mathematics.

For more information or assistance call (562) 985-4682, or come by the SAS Center located in Faculty Office Building 5, Room 109 (FO5-109).

University Honors Program

Students with SAT scores of 1,100 or above and a high school GPA of 3.3 or above or with a college GPA of 3.2 or above who still need 21 units of General Education are urged to apply to the University Honors Program. Interested students are urged to apply for an interview with the Director of the program. Applicants who are accepted to the Program are given personal advisement and schedule planning for the following semester. The Program requires no extra classes and includes small discussion classes with students who share similar interests and abilities; scholarships for outstanding students; personalized academic advisement and guidance; opportunities for a distinguished undergraduate record as one of fewer than 250 students on campus; priority registration; professors' profiles of each student's individual performance placed in a file for job and graduate school applications; and the opportunity to do an undergraduate thesis project in the area of the student's major.

It is entirely possible to graduate in four years and to be recognized at graduation as having fulfilled all the requirements of the Honors Program. Students who are interested should telephone Director Dr. Albie Burke or Duan Jackson at (562) 985-4706 to request an informative brochure and an application which, when submitted, will be responded to with an invitation for a personal interview and individual program advisement. The program is located in the University Library, Room 213.

Frequently Asked Questions

Students ask many of the following 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 Academic Advising Center at (562) 985-4837.

1. *What are the deadlines for admission to CSULB?* The University begins to accept applications for Fall semester admission in November of the preceding year; Spring semester admission begins in August of the preceding year. However, only applications received in the months of November and August are given priority. Some departments have supplemental admissions requirements; contact your department for further information. All "impacted" programs and some departments accept applications only in the months of November and August respectively.
2. *Can freshmen/sophomore students take upper division (300-499) classes?* University policy prohibits lower division students (under 30 units) from taking upper division courses without permission of the instructor.
3. *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 through the VRR system during the first two (2) weeks of the semester. Beginning the third week, students must use the official withdrawal form to change their schedule. Official withdrawal is indicated on the transcript with the symbol "W." This designation does not affect grade point average (GPA). However, students who fail to withdraw officially within the established deadline receive a "U" symbol. In the calculation of the GPA, a "U" is counted as an "F" grade.
4. *Can my General Education (GE) Courses be used for GE and for my major ("double counted")?* Usually courses in a student's major department may not be used to satisfy GE requirements. However, there are seven (7) exceptions to this rule. The exceptions are listed with the GE requirements in the Schedule of Classes along with the list of approved GE courses. In addition, majors sometimes require GE courses from other departments; these courses can be "double counted" for both GE and major requirements. Remember, you can only earn unit credit once for a course.
5. *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.
6. *What does General Education (GE) Certification mean?* Certification means that you completed the required 39 unit lower division GE pattern at a California Community College. GE certification must be clearly indicated on your official community college transcript. For further information, contact your community college counselor.
7. *Does having an A.A. degree from a California Community College mean I am GE Certified?* Usually not. The minimum requirements for most A.A. degrees do not include the 39 unit lower division GE pattern required by CSULB. CSULB requires an additional nine (9) units of upper division GE courses.
8. *What is partial General Education (GE) Certification?* Partial Certification means that transfer students have completed subject and unit requirements in some GE categories, but not others.
9. *What can I do if I get a "D" or "F" or "U" in a course?* The University has a "repeat/delete" policy which allows you to repeat a course (with a D, F, or U) to receive a higher grade. This can be done only once per course. Both the first and the second grade will appear on your transcript; however, only a second grade of "C" or higher will be used to calculate your GPA. The first grade will be "deleted" from the GPA calculation.

AEROSPACE STUDIES

College of Health and Human Services

U. S. Air Force Reserve Officers Training Corps (AFROTC)

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Through arrangements with Loyola Marymount University (LMU) in west Los Angeles, students may participate in the Air Force Reserve Officer Training Corps (AFROTC) program. AFROTC offers a variety of two, three, and four year scholarships, many of which pay the full costs of tuition, books, and fees. Successful completion of as little as four semesters of AFROTC academic classes and leadership laboratories can lead to a commission as a second lieutenant in the United States Air Force.

Classes consist of one hour of academics and two hours of laboratory for freshmen and sophomores and three hours of academics and two hours of laboratory for juniors and seniors. The academic hours earned can normally be counted as elective credit toward graduation. All AFROTC classes and laboratories are held on Fridays to better accommodate students commuting from other colleges and universities. Currently, LMU does not charge for the courses and offers cross-town students free parking while attending AFROTC activities. Additionally, AFROTC cadets under scholarship and all juniors and seniors receive a monthly tax-free stipend.

For more information, contact the Loyola Marymount University Department of Aerospace Studies (AFROTC) at (310) 338-2770.

AMERICAN INDIAN STUDIES

College of Liberal Arts

Director

Richard Glazer Danay

Telephone

(562) 985-4639 or (562) 985-4644

Faculty

Lester B. Brown (Professor)

Richard G. Danay (Professor)

Troy Johnson (Professor)

Craig Stone (Professor)

Academic Advisor

Lester B. Brown

Department Secretary

Mary Hayes

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for referral to one of the faculty advisors. American Indian Studies is an interdisciplinary study of the American Indian. The American Indian Studies program options are designed to provide students with the various fields of knowledge of American Indian Studies with opportunities for emphasis on particular topical, cultural and geographical interests.

The courses in the program offer two distinct directions: (1) classes that contain course content solely directed toward American Indian culture in the North Western Hemisphere; and (2) courses that contain sections or units on American Indians that have content relevant to understanding the American Indian experience.

American Indian Studies is governed by a committee of faculty representing a variety of schools and departments throughout the University.

In addition to offering a broad liberal education focusing on American Indian culture, traditions, and social issues, the various program options offer a useful background for careers in such diverse fields as Law, Administration, American Indian Affairs, Counseling, Teaching, Social Work, Government, Museums and Public Service.

Students may pursue a program in American Indian Studies through a minor, a certificate, a concentration in American Indian Studies within the Liberal Studies Degree Program, or an individually-designed undergraduate special major program under the Special Programs Office. Advisement in American Indian Studies is available in Program Office, Faculty Office (FO) 3 room 300 by appointment.

Certificate in American Indian Studies (code AIS_CT01)

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 also simultaneously 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 Director of the American Indian Studies Program.

Requirements

1. A Bachelor's degree with a major in a traditional discipline. (Certificate requirements may be completed prior to 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:

Required Core Courses

Lower Division Core Courses (select 6 units from): AIS 105, 106, 200;

Upper Division Core Courses (9 units from): AIS 319, 320, 335, 340, 361, 485;

Upper Division AIS Electives (3 units from): AIS 420, 450, 490, 497, 499;

Upper Division Electives Courses (select 3 units from): AIS Upper Division Core Courses not selected above and from: ANTH 321, 322, 347, 349; ART 456/598S, 457/598T; EDSE 435; HIST 372, 471; HDEV 360; CHLS 380, 420.

Minor in American Indian Studies (code AIS_UM01)

Requirement

A minimum of 21 units, including 18 units in American Indian Studies, distributed as follows:

Required Core Courses

Lower Division Core Courses: (select 6 units from): AIS 105, 106, 200;

Upper Division AIS Core Courses: (select 6 units from): AIS 319, 320, 335, 340, 361, 485;

Upper Division AIS Elective Courses: (select 6 units from): AIS 420, 450, 490, 497, 499; (select 3 units from): ANTH 321, 322, 347, 349; ART 456/598S, 457/598T; EDSE 435; HIST 372, 471; HDEV 360; CHLS 380, 420 or other AIS upper division offerings.

Upper Division Elective Courses: Course offerings in this section contain classes that either have content relevant to the American Indian experience or include a section or unit devoted to American Indians. Although some of these courses contain a minimum amount of Indian material, they have been included because of their relevance to American Indian Studies as well as offering the student a wider selection to meet individual programmatic needs and goals; (AIS Upper Division Core Courses not selected in Section II can be used to meet requirements in this section.)

Courses (AIS)

Lower Division

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, legal and military relationships that developed between the American Indians and foreign nations. Not open to students with credit in AIS 100.

106. American Indian History – Post 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 1871 to the present. Not open to students with credit in AIS 101.

200. Contemporary Issues in American Indian Studies (3)

Analysis of the diverse contemporary issues that have impacted upon the American Indian in contemporary society. Overview of the major issues in American Indian affairs: politics, art, philosophy, music, education, reservation life, economics, government relations, Indian organizations, Indian-white relations, legal issues, land rights, media issues, Indian activist movements, com-

munity concerns and additional topics of interest of a contemporary nature.

208. California Indian History (3)

This course in California Indian History is designed to provide students an opportunity to study the relationship between the Indian people of the state of California and the various European powers who influenced the settlement of this state. Areas to be explored include the indigenous people of the present day state of California prior to European contact; the Spanish invasion of 1769, the Mexican secularization in 1834, and the seizure of California in 1846 by the United States. These experiences and the resultant impact will be further studied as steps toward understanding contemporary issues involving California Indian people. Letter grade only (A-F).

215. U.S. Diversity and the Ethnic Experience (3)

Prerequisites: The course is open only to Integrated Teacher Education Program students. This course is a 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 is given to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States. Same course as ASAM 215, B/ST 215, CHLS 215. The departments take turns offering the course in the Fall semester. 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. American Indians in Cinema (3)

This class will examine through the medium of film the creation of stereotypical and positive images of Americans in cinema. Beginning with cinema in the silent period through contemporary times these images will be observed, discussed, and identified, and examined to come to a comprehensive understanding of how the values of these images are created and maintained in American popular society. The class will also discuss those contemporary images created from the American Indian perspective that offer different images of American Indians in society. Class content will vary dependent on films available for instruction. Letter grade only (A-F).

319. The Ethnic Experience in the U.S. (3)

An 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 ASAM 319, B/ST 319, CHLS 319, W/ST 319. Lecture/Discussion.

320. American Indian Art (3)

A survey of the arts of the North American Indian with special emphasis on the major art forms of the continental United States, Alaska, and Canada. Traditional and contemporary art and artists will be explored with attention to aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian Culture.

335. American Indian Philosophies (3)

Prerequisites: AIS 105, 106, 200, or permission of instructor. A detailed examination of Iroquois, Navajo, Lakotal/Dakota (and others) as tribal groups and their world views. Comparing and contrasting of these cultural groups with the Anglo-American and each other. Giving insight to the student into the traditional world views, their establishments and on-going practices in a contemporary setting, including the effect/affect of their contact with outside cultures and assimilation into the larger U.S. culture. Letter grade only (A-F).

340. American Indian Literature (3)

An analysis of the written and oral literary traditions developed by American Indians. The range of works studied are: oral history, tales, myth, song, prayer, poetry, short story, and novel.

361. American Indian Education (3)

A study of the historical developments of American Indian Education and proposed solutions to selected problems of education in the various types of schools. Overview of the role of women in traditional Indian societies and in the modern world. Changes in Indian societies occasioned by contact with Europeans and how these changes have altered sexual role definitions will be examined. (Lecture-discussion 3 hours.)

420. American Indian Studio Art (3)

Prerequisites: AIS 320, or permission of instructor. Techniques, materials, concepts and processes in the creation of American Indian Traditional arts and crafts. Selected artistic projects in the creation of tribal arts. (Lecture-activity 6 hours.)

421. 20th Century American Indian Art (3)

The class will examine the arts of the North American Indian with special emphasis on the major art forms of the continental United States, Alaska, and Canada in the twentieth century. Relationships between tradition and contemporary art and artists will be explored with specific attention to aesthetic, theoretical, historical, religious, and philosophical aspects as they relate to American Indian culture. A comprehensive understanding of how the value of modern and contemporary images are created and maintained in American popular society through the medium of art will be discussed. Letter grade only (A-F).

485. Federal Indian Law (3)

This course is designed to provide an in-depth study of the legal relationship between the United States and Indian people and Indian tribes as the field of Indian law was developed and has changed over the years. The legal development will begin with first contact between Indian people and English colonist and continue to the present time.

*450. Cross Cultural Issues for Service Provision to American Indians (3)

Prerequisite: Upper division status. This course is designed for those students entering a service career or profession such as therapists, counselors, teachers, physicians and other helping professionals. This course will help the service professional to have a better understanding of American Indian societies and cultures and the service issues which are unique to those communities. The course will deal with various theories and therapeutic techniques and their effective/or noneffectiveness with these ethnic groups. The course will address community organization as well as techniques for working with individuals, families, and groups of American Indians. This course is designed to explore these qualities in the context of cross-cultural efforts to be of assistance to the American Indian community. Juniors and Seniors Only. Letter grade only (A-F).

490. Special 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 for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

C. American Indians in Cinema and Literature

497. Fieldwork in American Indian Studies (1-3)

Prerequisites: Upper division standing, consent of instructor. Supervised experiences relevant to specific aspects of the American Indian community in off-campus settings. The fieldwork project must be directly related to the student's major or certificate program. Regular meetings with faculty supervisor and written reports required. May be repeated for a maximum of six 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 for a maximum of six units.

AMERICAN STUDIES

College of Liberal Arts

Director

Frederick Wegener

Department Office

McIntosh Humanities Building (MHB), Room 419

Telephone / FAX

(562) 985-4226 / (562) 985-2369

Affiliated Faculty

Professors

Elyse M. Blankley (English/Women's Studies)

Patricia A. Cleary (History)

Sharon D. Downey (Communication Studies)

J. William Gibson (Sociology)

Paul Gilmore (English)

George Hart (English)

Troy Johnson (American Indian Studies)

Maulana Karenga (Black Studies)

Karen Kleinfelder (Art)

Charles Noble (Political Science)

David R. Peck (Emeritus) (English)

Karen Rasmussen (Communication Studies)

Sara L. Schrank (History)

Craig R. Smith (Communication Studies)

John N. Tsuchida (Asian and Asian American Studies)

Omar S. Valerio-Jimenez (History)

Julie Van Camp (Philosophy)

Associate Professors

Timothy Caron (English)

Carlos R. Piar (Religious Studies)

Frederick Wegener (English)

Assistant Professors

Angela Bowen (Women's Studies)

Linda N. España-Maram (Asian and Asian American Studies)

Marc Flacks (Sociology)

Paul Gilmore (English)

George Hart (English)

Maria Heim (Religious Studies)

Brett Mizelle (History)

Daniel J. O'Connor (Political Science)

Eve Oishi (Women's Studies)

Reiland Rabaka (Black Studies)

Maythee Rojas (Women's Studies)

Anna Sandoval (Chicano and Latino Studies)

Sarah L. Schrank (History)

Nancy Strow Sheley (English/Liberal Studies)

Dean S. Toji (Asian and Asian American Studies)

Omar S. Valerio-Jimenez (History)

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Bachelor of Arts in American Studies (code AMSTBA01) (120 units)

Students desiring information should contact the department office for referral to a faculty advisor.

American Studies is an interdisciplinary study of American culture. The American Studies Program offers a major leading to the bachelor's degree, a minor, and a Liberal Studies concentration. The program also offers a variety of general

education and interdisciplinary courses. Most students majoring or minoring in American Studies are interested in both (1) studying American culture as a whole from several disciplinary perspectives and (2) studying in depth a problem or theme according to individual choice. Reflecting these two interests, the major consists of a 5-course core sequence and a 5-course elective pattern that centers on one theme or problem.

The American Studies Program is governed by a committee of faculty from various departments and schools who also serve as advisors. Students majoring in American Studies confer with advisors to plan their programs, which are recorded on official advising forms.

In addition to providing a broad liberal education focusing on American culture, traditions and institutions, the major in American Studies offers a useful background for careers in law, journalism, public service, government, business and teaching. The program also provides the foundation for graduate work in American Studies and related fields.

In preparation for the upper division major in American Studies, students are expected to have completed lower division courses appropriate as background to the study of American culture. Students planning to major in American Studies should consult the program director or one of the above-named faculty advisors early in their academic careers for general education and preparatory course recommendations and for teaching credential information.

Requirements

A minimum of 33 units distributed as follows:

Five core courses: AMST 300; HIST 477A,B; ENGL 270A, B.

Elective pattern: The student chooses one of the following topics or themes and plans with an advisor (who will have an up-to-date master list of appropriate courses) an elective pattern of a five-course sequence with no more than two courses coming from any one academic department: (A) American Institutions; (B) American People; (C) Women in America; (D) American Environment; (E) Arts and Communication in America; (F) American Mind; (G) Student-Designed Pattern. In place of one of the above topics or themes, the American Studies major, with the approval of the advisor and the program director, may design a sequence of courses focusing on a topic, theme, or problem in which he or she is particularly interested.

Minor in American Studies (code AMSTUM01)

A minimum of 18 units, including AMST 300 and HIST 477A,B and 9 or more units chosen in consultation with a faculty advisor.

Courses (AMST)

Foundation Courses 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. Introduction to American Studies (3)

Interdisciplinary approaches to the study of American civilization from the colonial period through the twentieth century. Significant issues and problems in American life will be examined from the perspectives of several disciplines.

ANTHROPOLOGY

College of Liberal Arts

Department Chair

Daniel O. Larson

Department Office

Faculty Office FO3-305

Telephone

(562) 985-5171

FAX

(562) 985-4379

Web Site

<http://www.csulb.edu/~anthro/>

Faculty

Professors

Pamela A. Bunte

Robert C. Harman

Daniel O. Larson

Eugene E. Ruyle

Marcus Young Owl

Associate Professors

Jayne Howell

Barbara C. LeMaster

Hector Neff

George M. Scott, Jr.

Assistant Professors

Jelmer W. Eerkens

James G. Ellison

Carl P. Lipo

Larry L. Mai

Department Secretary

Jane E. Docherty

Students desiring information should contact the department office for referral to one of the faculty advisors:

Undergraduate Advisor

Jayne Howell

Graduate Advisors

Pamela A. Bunte – Applied and Linguistics

Hector Neff - Archaeology

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Anthropology is the systematic study of our own species in our biological, social, and cultural aspects. Anthropologists study the full range of human experience in both the past and present. The breadth of anthropological studies gives students a unique perspective to understand other societies and their own. The programs offered by the Department of Anthropology are designed to enrich the personal and professional lives of our students.

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. Students will find that Anthropology provides a useful perspective that has many applications in daily social interaction. The Anthropology major provides a strong liberal arts background that can contribute to success in many fields, such as teaching, public service, or business. Anthropology majors intending to pursue careers in these fields are urged to consider minoring in fields which provide appropriate entry-level skills, such as the Minor in Business Economics or in Public Policy. The major also prepares students for advanced studies in Anthropology. The undergraduate minor in Anthropology is recommended for students preparing for careers which will require practical knowledge of different cultural backgrounds. These include teaching, international business and engineering, foreign service, and public and social services within our own multicultural society.

The Department of Anthropology also offers a graduate program leading to the Master of Arts degree. The graduate program is designed to meet the needs of students who are: 1) seeking to expand their knowledge and increase their competence in Anthropology, 2) preparing for further advanced degrees, 3) preparing for a career in Applied 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.

Bachelor of Arts (code ANTHBA01) (120 units)

Lower Division Requirements: ANTH 110, 120, 140, 170 and 202.

Upper Division Requirements: A total of 33 units. Required Core Courses (15 units): ANTH 313, 314, 401, 435 and 413 or 475.

In consultation with the Undergraduate Advisor, an additional 18 units will be selected from the courses listed below.

Archaeology: ANTH 321, 322, 323, 345, 347, 349, 450, 451

Biological Anthropology: ANTH 315, 318, 319, 363, 434, 436, 480A, 480B

Cultural Anthropology: ANTH 305I, 307I, 311I, 321, 322, 323, 324, 329, 332, 333, 335, 336, 345, 351, 353, 412I, 414, 415, 416, 417, 419, 420, 421, 436, 454.

Linguistic Anthropology: ANTH 413, 421, 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 499.

Minor in Anthropology (code ANTHUM01)

A minimum of 21 units in a program approved by the major advisor, as follows:

Lower Division Required: ANTH 120, 140, 170 and 110.

Upper Division Electives: 9 units of anthropology courses selected in consultation with the major advisor to meet the specific needs of the student.

Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code CO-EDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units):
Culture: ANTH 421/LING 425 or EDP 432/EDEL 430
Language: EDP 454 or LING/CD 329
Schooling: EDP/LING 485
Development: EDP 301, EDP 302, HDEV 307I, or PSY 361
2. Six additional units, selected with an advisor, from the following:
Culture: AIS 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319, ANTH 329, ANTH 412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430
Language: ANTH 170, CHLS 402, EDP 454, LING/CD 329, LING/ENGL 327, LING 363I, LING 435, LING 472, LING 486.
Schooling: AIS 361, ASAM 310, B/ST 420, CHLS 340, EDP 305, EDP 350, EDP 476.
Development: EDP 301, EDP 302, HDEV 307I, PSY 361.

Master of Arts in Anthropology (code ANTHMA01)

The Department of Anthropology offers graduate work in archaeology and linguistic anthropology leading to a master's degree in anthropology. Students interested in sociocultural anthropology should refer to the option in applied anthropology below.

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 passing the WPE);
3. Approval of the candidate's graduate program by the departmental graduate advisor;

4. The candidate must have taken ANTH 501 (Development of Anthropological Theory), ANTH 510 (Proseminar) and either ANTH 560 (Ethnographic Research Methods) or ANTH 561 (Computer Research Applications in Anthropology), for a total of nine core units.

Requirements

1. A minimum of 33 units of 400-level upper division and graduate courses, of which 21 units must be at the 500-600 level in a program approved by the Graduate Advisor. These 33 units must include the following courses: ANTH 501, 510 and 560 or 561;
2. Up to six 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. Either A) a Comprehensive Examination, or B) a M.A. Thesis.

Option in Applied Anthropology (code ANTHMA02)

The Department of Anthropology offers graduate work in applied anthropology leading to a Master of Arts degree in Anthropology. Students with a B.A. in Anthropology, as well as those who can apply their previous training and experience to the practice of anthropology, are welcome to apply. In order to meet the growing demand in California and elsewhere for professionals capable of addressing the complex problems of multicultural urban and regional environments, the Applied Anthropology Program emphasizes specialized training concurrently with knowledge of anthropological theory. All graduate students participate in local research projects and internships. Within the general context of urban and regional development, the particular focus areas of the program include such concerns as multicultural education, medical/health care, and community. Regional emphasis is on southern California and the Southwest.

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 passing the WPE);
3. Approval of the candidate's graduate program by the departmental graduate advisor.

Requirements

The student must complete a minimum of 39 units of 400-level upper division and graduate courses in a program approved by the Graduate Advisor. Note: Students may substitute other courses for those normally required, but only with the approval of the Graduate Advisor.

1. ANTH 501, 505, 510, 517, 560, 561, 675, 698;
2. Three upper division/graduate elective courses related to the student's main research interest. At least one of the three electives must be taken outside the Department of Anthropology;
3. Satisfy the language requirement. Each student will be considered individually in relation to this requirement, which must be satisfied before he or she begins work on the thesis;
4. Undertake and satisfactorily complete, under the supervision of the committee, a Thesis.

Courses (ANTH)

Lower Division

110. Introduction to Physical Anthropology (3)

Prerequisites/corequisites: Completion of any B.2 Foundation GE course. Physical nature of human beings: relation of humans to other animals: heredity and principles of biological evolution: human fossils: significance of physical variation in modern populations: the origin and adaptive value of cultural behavior. (CAN ANTH 2)

120. Introduction to Cultural Anthropology (3)

Prerequisite/corequisite: Any G.E. Foundations course. Nature of culture; a comparative and historical approach to the religion, social organization, subsistence patterns and other aspects of the great variety of cultures around the world; the meanings of human nature, cultural universals and cultural differences. (CAN ANTH 4)

140. Introduction to Archaeology (3)

Prerequisite/corequisite: Any G.E. Foundations course. Survey of methods used by archaeologists to understand the growth and development of human cultures; discoveries in world-wide prehistory from the Old Stone Age to the Iron Age. (CAN ANTH 6)

150. Biocultural Anthropology (3)

Prerequisite/corequisite: Any G.E. Foundations course. An integration of social, physiological and psychological factors which influence or determine our daily lives; taught from an anthropological perspective.

170. Introduction to Linguistics (3)

Prerequisite/corequisite: Any G.E. Foundations course. Nature of language; its relation to culture; language structure and processes of change; language universals, contrasts and relationships. Same course as LING 170.

202. Quantitative Methods in Anthropology (4)

This course is designed to help students strengthen their quantitative skills. A broad range of topics will be covered with emphasis being placed on the analysis of large datasets, computer graphics, research design, and application of several statistical methods and software programs. Datasets used in this class have a multi-cultural base and are derived from a variety of fields including anthropology and history. The course experience will assist students in their efforts to develop research designs for independent research in upper division classes under their major.

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.

305I. Radical Social Analysis (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Radical analysis of society and culture, focusing on classic Marxian texts as well as current critical theory and analysis.

307I. Modernization in Global Perspective (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An exploration of the ways in which the current psychological and material problems in modern society (both western and Third World) can be traced to a process of accelerating change which began with the advance of technology, the rise of capitalism, the abandonment of "old values," the increasing complexity of bureaucracy, and a lowering of social barriers. Exploration of all facets of modernization utilizing films, discussions and readings (fiction and non-fiction). Same course as GEOG 307I.

311I. Human Adventure (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. A synthesis of Anthropology and Marxism; examination of the processes of evolution and revolution in the development of humanity, from earliest times to the present.

313. Peoples of the World: Prehistory (3)

The origin of human beings and their cultures, the development of agriculture, the 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. Peoples of the World: Ethnography (3)

Prerequisites: Completion of GE Foundation requirements. 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)

Biological variation and differences in the two sexes of modern humans. The biological concepts of biospecies and subspecies are examined. Biological adaptations of human males and females to the various environments of the world are considered. Racism and genocide are discussed in relation to ethnic groups. The rise of the race concept in North America and the social meaning of this concept. An indepth look at the biology of several American ethnic groups. Letter grade only (A-F).

317. Methodology in the Anthropological Life Sciences (4)

Prerequisites: ANTH 110, 202 (or comparable statistics course) with a grade of "C" or better. Methodology used in the life science branch of anthropology including physical and biological anthropology, human biology, and primatology. This course presents the methodology used by anthropologists engaged in biological research and the course focuses on the fundamentals of scientific method as used in the life sciences including hypotheses, theory, measurement, experimentation, models, predictions, use of statistics in the anthropological sciences, and laboratory vs. field studies. Applications in the various subdisciplines, including human genetics, osteology and forensics, primatology, human (physiological) adaptation, and human paleontology, are explored in the laboratory portion of the course. Lecture 3 hours, laboratory 3 hours. Letter grade only (A-F).

318. Human Genetics (3)

Prerequisites: ANTH 110 or equivalent BIOL course, a quantitative course. Genetic background for normal and abnormal development; population differences; human reproduction, pregnancy, prenatal diagnosis and birth defects; introduction to population and evolutionary genetics; application to social, moral, legal and ethical problems and to genetic counseling.

319. Human Growth and Development (3)

Prerequisites: BIOL 205 or 207. 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.

323. 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.

324. Peoples of South America (3)

Survey of the present day peoples of South America; tribal Indians, peasant communities, village life, the emerging middle class, and other social groups; examination of the Indian, European, and African heritage and present day cultural and social changes.

329. Cultural Diversity in California (3)

An examination of the various dimensions of the current cultural diversity in California, including ethnicity, nationality, class, gender, religion, and region. Various relationships between these dimensions will be analyzed, a historical background for each dimension and relationship will be presented, 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.

333. Cultures and Societies of Southeast Asia (3)

Comparison of ecological, social, and symbolic systems of mainland and island Southeast Asia. Emphasis of traditional cultures of agricultural and small-scale societies. Effects of colonialism and modernization are also covered.

335. Japanese Culture and Society (3)

Cultural and social institutions; kinship, family structure, religion, law, politics and economy from traditional to modern times.

336. African Societies and Cultures (3)

Prerequisites: General Education Category A. An anthropological survey of Africa examining the social, cultural, and economic diversity of the continent over time. A foundation for appreciation of current issues in Africa including cultural debates, nationalism, and cultural change and preservation. Letter grade only (A-F).

345. Ancient Civilizations of Mexico and Central America (3)

Origin and growth of the Aztec, Maya and other civilizations of Mexico and Central America.

347. 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.

349. The Prehistory of California and the Southwestern United States (3)

Development of the native cultures of California and American Southwest from the earliest human occupation to the historic period.

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)

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, Hominoids.

401. Foundations of Anthropology (3) F

Prerequisites: ANTH 313 and ANTH 314 with grade of "C" or better, or permission of instructor. Provides 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).

412I. Culture and Communication (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Introduction to culture and its influence on the communication process. Emphasis on practical application to intercultural and multicultural situations. Attention to 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)**

Relation of language patterns to social life; problems of meaning in cross-cultural communication and language translation; practical application to business, government and religious contacts. Not open to students with credit in ANTH 440. Same course as LING 413.

414./514. Anthropology of Religion (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or permission of the instructor. An anthropological examination of religious behavior and beliefs, which will focus on these phenomena in their sociocultural and adaptive contexts. Using the cross-cultural and cultural evolutionary approach, hunter-gatherer religions through civilized ones will be covered.

415./515. Economic Anthropology (3) S

This course compares and contrasts the economies characteristic of hunter-gatherers, horticulturalists, and peasants; investigates the changing relations of tribal and peasant peoples to the developing global economy; and looks at a range of production and marketing strategies within local, regional, and urban settings. It is a balanced presentation of appropriate ethnographic materials, economic theory, and alternative modes of analysis.

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 standing or graduate standing or permission of the 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).

419./519. Concepts and Theories of Ethnic Identity (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or permission of the instructor. An examination of concepts and theories of ethnic identity and acculturation/assimilation, as well as the causes of ethnic conflict and the means of its resolution. Letter grade only (A-F).

420./520. Political Anthropology (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or permission of the instructor. Political behavior and thought will be examined through the anthropological perspective, which will view these phenomena in their sociocultural and adaptive contexts; in addition, it will compare and contrast various types of political systems across the world, from the simple to the complex.

***421. Education Across Cultures (3)**

Cross cultural perspectives on education in modern society; problems in education of non-western peoples by those from western cultural backgrounds. Same course as LING 425.

426. Post Colonial Africa (3)

Prerequisites: Completion of all Foundation coursework. Change and continuity in contemporary Africa, ethnography of postcolonial social and cultural issues including globalization and transnationalism, health, food security, peace and war, economic and political transformations, and the politics of culture.

434. Primate Evolution (3)

Prerequisite: ANTH 110. Recommended: ANTH 363, upper division physical anthropology, biology, or anatomy/physiology course. This course will focus on primate evolutionary biology, minus the family hominidae. Particular emphasis will be placed on the fossil record and the analysis of fossils (through the use of fossil casts). Detailed cranial anatomy (particularly teeth) will be examined in the laboratory section. Literature on primate evolution will be surveyed.

***435. Human Evolution (3)**

Prerequisites: ANTH 110. Fossil evidence for human evolution with a consideration of the importance of cultural factors. Not open to students with credit in ANTH 430.

***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.

***450. Archaeological Field Research (1-10)**

Prerequisite: Consent of Instructor. Introduction to field acquisition of archaeological data through remote sensing, geophysics, survey, and excavation. Research will be part of on-going field projects and 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 in different semesters to a maximum of 10 units.

451./551. Laboratory Techniques in Archaeology (3)

Prerequisites: ANTH 140 or consent of the instructor. ANTH 451/551 is designed to introduce students to the techniques used in processing collections in an archaeological laboratory and identifying attributes of artifacts relevant to the kinds of analysis current in archaeology today. Considerable emphasis will be placed on the kinds of behavioral inferences that can be derived from laboratory analysis of artifacts and other cultural items (animal bone, plant seeds, etc), as well as the context of laboratory operations in archaeological projects and in the construction of research designs. Letter grade only (A-F).

453. Archaeological Field Research Design (4)

Prerequisites: Consent of instructor and ANTH 205 or equivalent. The nature of the archaeological record, research design, techniques of archaeological data collection and field research employing a data sources and modern techniques. Practical experience in the use of mapping instruments, map interpretation, geophysics, surface survey, sampling designs, remote sensing photogrammetry, and research design development. Letter grade only (A-F).

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.

455. Archaeological Method and Theory I (4)

Prerequisites: Consent of instructor and ANTH 205. Examination of theoretical constructs in the analysis of archaeological data. Development and construction of a metalanguage for the discussion and analysis of historical phenomenon. Key debates in archaeological literature about the nature of theory, knowledge, theory and units. Discussion of theory, methods, concepts, units, classification, terminology, and typologies. Letter grade only (A-F).

456. Archaeological Method and Theory II (4)

Prerequisites: Consent of instructor and ANTH 455. The analysis of conceptual frameworks employed by archaeologists in obtaining explanation in the three major areas of culture history, cultural reconstruction, and explanatory prehistory, considering the nature of explanation as conceived in these areas, the basic assumptions

employed in achieving these aims, and an introduction to the methods employed. Introduction to evolutionary theory as used in archaeology. Debates about the nature of evolutionary explanations. 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, W/ST 475.

479. Anthropology of Literature (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. This course explores how written literature—novels, short stories, and poetry—reflects the cultural attributes of its settings. An exploration of this area will enhance our understanding and appreciation of cultures different from our own, as well as expanding our critical thinking about the relationship between literature and anthropology. Letter grade only (A-F).

***480A. Osteology I (3)**

Introduction to skeletal anatomy, measurement and analysis of osteological collections, applied anthropometrics and morphometrics.

***480B. Osteology II (3)**

Prerequisites: ANTH 480A or consent of instructor. Osteological analysis of skeletal materials; detection of pathological conditions on archeological populations; methods of dietary analysis; faunal analysis from archeological sites.

***490. Special Topics in Anthropology (3)**

Topics of current interest in anthropology selected for intensive development. May be repeated for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

496. Internship (3)

Prerequisites: Student must have upper division standing, and have approval of a faculty mentor. A 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. Students may be placed at public or private institutions (i.e. museums, primate centers, zoos, schools, agencies) under the supervision of a faculty sponsor. Internship supervisors monitor and evaluate student work based on criteria determined by the faculty mentor and his or her student and formalized on a signed contract. The criteria in the contract consist of objectives developed by the student in consultation with the faculty sponsor. The objectives and the placement site must be approved by the student's faculty mentor. Students will submit a written report of their experience to the faculty supervisor at the end of the internships. Letter grade only (A-F).

498. Senior Thesis (1-6)

Prerequisites: Student must be an Anthropology major, senior standing, and have approval 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 for a maximum of 6 units.

Graduate Level

501. Current Trends in Anthropological Theory (3)

Prerequisites: ANTH 401 or its equivalent, and graduate standing. Examination of current themes used by leading anthropologists in the areas of our graduate program, i.e.: Applied Anthropology (medical/health care, education, community/organizations), 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 permission of the instructor. Through reading and discussion of ethnographies and reports of applied anthropological work, this course reviews the scientific understanding of the process of inquiry and action in the human sci-

ences, leading to the identification of a common core perspective within anthropology. The course emphasizes how anthropology differs from other disciplines with its emphasis on ethnographic fieldwork, a holistic and cross-cultural approach, and culture as a key concept. The epistemology underlying anthropological approaches to contemporary, global, urban problems in health/medical care, education, communities and organizations are emphasized. Letter grade only (A-F).

505. Practicing Anthropology (3)

Prerequisite: Graduate standing or permission 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 aides; internal and external contracting; time management; project management; working across disciplines; ethics. Letter grade only (A-F).

510. Proseminar (3) F

Prerequisites: Six units of upper-division anthropology courses or permission 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 permission of the instructor. An anthropological examination of religious behavior and beliefs, which will focus on these phenomena in their sociocultural and adaptive contexts. Using the cross-cultural and cultural evolutionary approach, hunter-gatherer religions through civilized ones will be covered.

515./415. Economic Anthropology (3)

This course compares and contrasts the economies characteristic of hunter-gatherers, horticulturalists, and peasants; investigates the changing relations of tribal and peasant peoples to the developing global economy; and looks at a range of production and marketing strategies within local, regional, and urban settings. It is a balanced presentation of appropriate ethnographic materials, economic theory, and alternative modes of analysis.

516./416. Urban Anthropology (3)

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517./417. Applied Anthropology (3)

Prerequisites: ANTH 120 and upper division standing or graduate standing or permission of the 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. Concepts and Theories of Ethnic Identity (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or permission of the instructor. An examination of concepts and theories of ethnic identity and acculturation/assimilation, as well as the causes of ethnic conflict and the means of its resolution. Letter grade only (A-F).

520./420. Political Anthropology (3)

Prerequisites: ANTH 120 and upper-division/graduate standing or permission of the instructor. Political behavior and thought will be examined through the anthropological perspective, which will view these phenomena in their sociocultural and adaptive contexts; in addition, it will compare and contrast various types of political systems across the world, from the simple to the complex.

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.

551./451. Laboratory Techniques in Archaeology (3)

Prerequisites: ANTH 140 or consent of the instructor. ANTH 551/451 is designed to introduce students to the techniques used in processing collections in an archaeological laboratory and identifying attributes of artifacts relevant to the kinds of analysis current in archaeology today. Considerable emphasis will be placed on the kinds of behavioral inferences that can be derived from laboratory analysis of artifacts and other cultural items (animal bone, plant seeds, etc), as well as the context of laboratory operations in archaeological projects and in the construction of research designs. Letter grade only (A-F).

553. Archaeological Field Research Design (4)

Prerequisites: Graduate standing and consent of instructor. The nature of the archaeological record, research design, techniques of archaeological data collection and field research employing data sources and modern techniques. Practical experience in the use of mapping instruments, map interpretation, geophysics, surface survey, sampling designs, remote sensing, photogrammetry, and research design development. 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. Letter grade only (A-F).

561. Basic Computer Research Applications in Anthropology (3)

Prerequisite: ANTH 560 or permission of instructor. The basics of both qualitative and quantitative computer methods, employing currently appropriate software and statistical techniques. The 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.

570. Linguistic Field Methods (4)

This course introduces the student to the practical study of unfamiliar languages. Through the help of a native speaker of a non-European language, the student will learn how to write down the sounds of the language and how to determine the structure of the language. Prerequisite: an introductory linguistics course. Same course as LING 580. (Lecture-activity 5 hours.)

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.

600. Seminar in Ethnology and Social Anthropology (3)

Topics of substantive and theoretical importance and their application to research problems. May be repeated for a maximum of six units. Letter grade only (A-F)

620. Seminar in Archaeology (3)

Prerequisites: Six upper division units in archaeological courses or consent of instructor. Important recent discoveries; contemporary ideas, trends and problems. May be repeated for a maximum of six units.

630. Seminar in Anthropological Linguistics (3)

Prerequisite: Consent of instructor. Areas and methods of linguistic study and research; evaluation and intensive scrutiny. May be repeated for a maximum of six units.

675. Applied Anthropology Internship Analysis (3-6)

Prerequisites: ANTH 510, 517, 560. Guided review and discussion of internship in applied anthropology. A hands-on introduction to team analysis and other analytic methods drawing on research conducted during the internship. Credit/No Credit grading only.

697. Directed Research (1-3)

Prerequisite: Consent of department. Research in anthropology on an individual basis.

698. Thesis (1-6)

Prerequisite: Consent of department. Planning, preparation and completion of a thesis in anthropology. Letter grade only (A-F).

ART

College of the Arts

Department Chair

Jay Kvapil

Department Administrative Office

Fine Arts (FA) 4, Room 102

Department Student Services Office

Fine Arts (FA) 4, Room 106

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Faculty

Professors

Ingrid Aall (Emeritus, 1997)

Archie Boston Jr.

Patricia J. Clark (Emeritus, 2002)

Gene R. Cooper (Emeritus, 2000)

Domenic A. Cretara

John de Heras (Emeritus, 1997)

Connie Glenn

Jen Grey

David A. Hadlock

Thomas E. Hall

Elisabeth Hartung

Kristi E. Slayman Jones (Emeritus, 2001)

Karen Kleinfelder

Joseph H. Krause (Emeritus, 1996)

Thomas J. Krumpak

Robert J. Kunst (Emeritus, 2001)

Jay Kvapil

Anthony Marsh

Julia I. Miller

Dieter Muller-Stach (Emeritus, 1998)

Cynthia A. Osborne

Roxanne Sexauer

John J. Shaak (Emeritus, 1998)

Carol Shaw-Sutton

John C. Snidecor

Craig C. Stone

Marie Thibeault

Associate Professor

Kenneth Brown

Todd Gray

Peter Holliday

Tor Hovind

Peter Mendez (Emeritus, 2001)

Carlos Silveira

Assistant Professors

Douglas Buis

Florian Claar

Tanya Cummings

Linda Day

Maria Fernandez

Yu Ji

Elizabeth Kenneday

Kristen Morgan

Lara Nguyen

Robin Richesson

Mark Ruwedel

Fran Siegel

Michael Whitlow

Administrative Coordinator

Merrie Martino

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students should contact the Department Student Services Office for referral to one of the faculty advisors: Art/Credential Advisor, B.A./B.F.A. Advisor, Graduate M.A./M.F.A. Advisor.

In recognition of the quality of its programs and the standards it maintains, the Art Department is an accredited institutional member of the National Association of Schools of Art and Design (National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

The Art Department at California State University, Long Beach, is one of several campuses in the California State University system authorized to offer the master of fine arts degree in art with a large number of specializations. The diversity of its 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 Art Department has curricular programs leading to the following undergraduate degrees: (1) bachelor of arts (art); (2) bachelor of arts (art history); (3) bachelor of arts (art education); (4) bachelor of fine arts in eight specializations (photography, ceramics, drawing/painting, visual communication (graphic design), illustration, printmaking, sculpture, 3-D media-fiber/metal/wood).

At the graduate level the Art Department offers both the master of arts degree and the master of fine arts degree. As the terminal degree for studio artists, the master of fine arts degree requires a minimum of two years and provides seven professional specializations as follows: ceramics, drawing/painting, illustration, photography, printmaking, sculpture, 3-D media-fiber/metal/wood.

The master of arts degree, designed as a one-year program, is offered by the Art Department in ten specializations; in addition to the seven studio areas listed above, the M.A. degree is granted in art history and art education (Graphic Design does not offer a graduate degree). The department also offers a graduate-level Certificate Program in Museum Studies and an interdisciplinary program leading to a Certificate in Biomedical Art.

As is customary in most schools, the Art Department may request projects completed by students for class credit for a short specified period for purposes of promotion and exhibition.

Admission to Baccalaureate Degree Programs in Studio Art

The number of applicants to several of the programs in Art exceeds the number that can be accommodated. For this reason, the department 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 to the major if they meet all requirements for admission to the university. Students applying to the B.A. in Studio Art or to one of the BFA degree programs will be admitted as pre-Studio Art majors. Admission as a pre-Studio Art major does not guarantee admission to the major.

Continuing students must apply for admission to the major during the month of November for following fall or during the month of August for admission for the following spring. Applications must be received in time that students can be admitted to a major 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 will be admitted to an alternate major if they have listed one on the application. If no alternate major is listed, the student will not be admitted to the university.

Students who qualify for admission to the university will be admitted to the Art Education or Art History major. Students applying for the B.A. in Studio Art, other than for Art Education or Art History, must meet the criteria for admission to the major. Students applying to a B.F.A. program must supply a portfolio of their creative work to the Art Department.

Students who are not admitted to the designated major will be admitted to an alternate major if they have listed one on the application. If no alternate major is listed, the student will not be admitted to the university.

Admission to the Bachelor of Arts in Studio Art

To be eligible for admission to the Option in Studio Art under the B.A. in Art program, students must be able to demonstrate that they will complete at least 30 units lower-division General Education requirements and all lower-division art prerequisites prior to the semester for which the application is submitted.

Students will be admitted on the basis of cumulative grade-point average, on a space available basis.

Admission to the Bachelor of Fine Arts Degree

Students seeking admission to the B.F.A. program must:

1. Meet entrance requirements of the University;
2. Provide the Art department with a transcript of all college level credits. This is in addition to any transcript submitted to the University Admissions Office;
3. Submit a portfolio of creative work to the Art Department.

To be eligible for admission to any B.F.A. program, students must be able to demonstrate that they will complete at least 30 lower-division General Education requirements and all lower-division art prerequisites prior to the semester for which the application is submitted.

Students who have not yet achieved sufficient specialization to prepare a portfolio or otherwise demonstrate their qualifications for the B.F.A. program are advised to seek admission to the Option in Studio Art depending upon their overall grade-point average. Once in residence, the B.A. student may take more specialized work and apply at a later date to change to the B.F.A. program.

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 degree programs in art must:

1. Submit a Change of Degree Objective form to the Art Department Student Services Office during the months of November or August;
2. Students applying for the B.F.A. degree programs in Art must also supply transcripts of college-level academic work attempted, and a portfolio of their creative work.

Bachelor of Arts in Art

Option in Studio Art (code ART_BA01) (120 units)

This program is for students who seek a broad understanding and application in art. Total Art units required: 27 lower division, 36 upper division.

Requirements

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 181, 184, 187, plus one course selected from: ART 151A, 151B, 161, 263.

Upper Division

1. ART 320A or 320B;
2. Six units of Art History only three of which may be AH 438 or 439;
3. One course from three of the following programs to total 9 units: Drawing and Painting, Printmaking, Illustration, Photography, Graphic Design (Visual Communication);
4. One course from three of the following programs to total 9 units: Ceramics, Fiber, Metal, Sculpture, or Wood;
5. Plus an additional nine units upper division from one of the following programs: Art History, Ceramics, Drawing and Painting, Fiber, Graphic Design (Visual Communication), Illustration, Metal, Photography, Printmaking, Sculpture, Wood.

Option in Art History (code ART_BA02) (120 units)

This program is for students who wish to specialize in the study of the history of art.

Lower Division: AH 113A, 113B, 115A, 115B, 115C; ART 10, 130, 181; HIST 131, 132, plus one course selected from ART 131, 184, 187, or 263. Upper Division Art History: AH 307, AH 497, plus one course selected from AH 308, 309, concentration in "major" field (3 courses from one of the following groups plus required AH 497), plus one course from each of the remaining five groups: I: AH 408, 409, 410; II: AH 423, 424, 425, 426, 427; III: AH 401, 436, 437, 438, 439; IV: AH 466, 467, 468, 469, 470A/B, 471A/B; V: AH 455, 456, 457; VI: AH 416, 417, 465.

Other: A score of 450 in either French or German on the Graduate School Foreign Language Test or complete two years of French or German with an average grade of "B" or better.

Option in Art Education (code ART_BA03) (120 units)

The bachelor of arts for teacher preparation degree is a four-year art major degree program required of those students seeking a single subject teaching credential in art (K-12) under the Teacher Preparation and Licensing Act of 1970 (Ryan Act).

Art Education Credential (code 110)

Students are required to complete 30 units of core courses and an additional 36 units to provide breadth and perspective.

Refer to the list of courses that follow. Consult the Art Education Credential Advisor for program information.

Requirements

Lower Division: AH 115A, 115B, 115C; ART 10, 130 or 182, 131, 151A, 151B, 181, 184, 187.

Upper Division: ART 300, 301, 305, 407, 412, 415; Art History: one course selected from AH 455, 456, 457, 466, 467, 468, 469, 470A/B; and AH 438 or 439; one course selected from ART 381, 383, 384, 385, 387; one course selected from ART 316, 340, 349, 370, 371A; one course selected from ART 316, 328A, 355A, 356, 357A, 357B, 358A, 359A, 362A, 363; and one course selected from ART 317, 341A, 341B, or 450A.

Single Subject Credential

The Single Subject Credential in Art requires 30 units of upper division or graduate course work beyond the B.A. However, some or all of the professional education courses and student teaching may be taken in the B.A. program or within the fifth year. These courses are EDSS 300A (recommended for the junior year); H SC 411; EDSE435 and 436; EDSS 450A; EDSE 457; EDP 350; EDSS 472 A,B,C (Student Teaching in Art). Before student teaching in art, students must pass a portfolio review for the assessment of subject matter competency. 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.

As of July 1, 2002, all candidates for the Single Subject Preliminary Credential are required to demonstrate Level 1 computer proficiency. Proficiency in Art Education can be demonstrated by successful completion of ART 305 or ETEC 444 or by passing a California Commission on Teacher Credentialing-approved examination. This requirement must be met prior to advancement to student teaching.

Bachelor of Fine Arts Degree

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 the student seeking a career of 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. There are seven professionally-oriented specialized programs leading to the B.F.A. degree. Total art and support units required: 70 (30 lower division, 40 upper division). Total units for graduation: 132.

Option in Art Photography (code ART_BF01) (132 units)

Lower Division: AH 115A, 115B, 115C; ART 10, 130, 131, 141, 181, 187; select one from ART 161 or 184.

Upper Division: ART 320A or 320B, 340, 342A, 406A, 444, 447, 491C, 499V; 473 for a total of 6 units; select two courses from ART 406B, 414, 440, 449; AH 411 and one from AH 438 or 439; and 6 units outside the specialization.

Option in Ceramics (code ART_BF02) (132 units)

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 151A, 151B, 161 or 184, 181, 187.

Upper Division: ART 320A, 341A, 341B, 343A, 343B, 352A, 451A, 451B, 491A; AH 364 and 6 additional units of Art History

only 3 of which may be AH 438 or 439; and 9 units outside the specialization.

Option in Drawing and Painting (code ART_BF03) (132 units)

Lower Division: AH115A, 115B, 115C; ART 10, 130 or 182, 131, 181, 184, 187, plus one course selected from: ART 151A, 151B, 161, 263.

Upper Division: ART 320A, 381, 383, 384, 387, 481, 483, 484, 487, 491G; 6 units of upper division Art History (AH); select 9 total units from the following courses: 492F, 492G, 492Z, 499D, 499K; and 6 units outside the specialization.

Option in Illustration (code ART_BF04) (132 units)

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 181, 184, 187, 223, 271.

Upper Division: ART 320B, 371A, 371B, 372, 471A, 471B. A minimum of 6 units from ART 373, 385, or 483; select one ART 374A or 499F; ART 382A, 382B, 383; 6 units of Art History only 3 of which may be AH 438 or 439; and 3 units outside the specialization.

Option in 3-D Media (Fiber, Metal, Wood) (code ART_BF05) (132 units)

Specializations offered under this option are: Fiber, Metal, or Wood.

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 151A or 151B, 161 or 184, 187, 263.

Upper Division: ART 320A, 381, 491B; select one of the following specializations:

Fiber: ART 316, 317, 328A, 428A, 432, 499N; select 3 units from ART 328B, 428B or 430; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.

Metal: ART 357A, 357B, 358A, 358B, 458A, 458B; select 3 units from: ART 355A, 356, 359A, 359B or 499J; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.

Wood: ART 354A, 354B, 454A, 454B, 499B for 9 units; 6 units of Art History (AH) to include DESN 368; and 9 units outside the specialization.

Option in Printmaking (code ART_BF06) (132 units)

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 141, 181, 184, 187.

Upper Division: ART 320A, 370, 376, 377, 378, 379, 381, 475, 480, 499R, 491P; AH365, 439, and 3 units elective upper division Art History (AH); plus 9 units outside the specialization.

Option in Sculpture (code ART_BF07) (132 units)

Lower Division: (30 units) AH 115A, 115B, 115C; ART 10, 130, 131, 161, 181, 184, 187, 263;

Upper Division: (40 units) ART 320A or 320B, 360A, 360B, 362A, 363, 450A, 460A, 491F; select two courses from the following: ART 361, ART 362B, ART 436A, ART 436B; 6 units upper division Art History (not to include AH 438), AH 439; and 6 units outside the specialization.

Option in Graphic Design (Visual Communication) (code ART_BF08) (132 units)

Lower Division: AH115A, 115B, 115C; ART 10, 130, 131, 181, 184, 187, 223.

Upper Division: ART 318, 322A, 322B, 323, 325, 326, 329, 331, 422A, 422B; select 6 units from the following: ART 420, 442, 499S; DESN 368 and 3 units of Art History (AH); and 6 units outside the specialization.

Certificate Program in Biomedical Art (code ART_CT01)

The Certificate Program in Biomedical Art is an interdisciplinary program sponsored by the Art and Biological Sciences Departments.

Biomedical art is commissioned principally by (1) hospitals or individual researchers for publication, (2) by publishers and film and television producers serving the biomedical professions, (3) by producers of educational aids for biomedicine. Therefore, proficiency in commercial art and printing procedures including photography and typography is required.

Special permission is not required for a student to pursue the Certificate in Biomedical Art. The student may apply for certification upon completion of the following CSULB course work and conditions:

Requirements

1. A major in art or biology;
2. A 2.75 overall GPA and 3.25 in the major;
3. 33 units as listed: ART 141 (2), 149 (3), 181 (3), 184 (3), 271 (3), 372 (2), 374A (3), 374B (3), 499F (3); and BIOL 200 (4), 208 (4); the BIOL 200 is waived for Biology majors.

Co-directors of the CSULB Biomedical Art program are in Art: Peter Mendez; and in Biological Sciences: Dr. Kenneth Gregory. Questions may be addressed to them during office hours which are listed in the respective departmental offices.

GRADUATE PROGRAMS

Master of Arts in Art (code ART_MA01)

Master of Fine Arts in Art (code ART_MF01)

The Department of Art offers the Master of Arts degree (30 units) in Art Education and Art History and (33 units) Studio Art, and the Master of Fine Arts degree (60 units) in Studio Art. Studio programs include: Ceramics, Drawing & Painting, Fiber, Illustration, Metals, Photography/Digital, Printmaking, Sculpture/Intermedia, and Wood.

Departmental Review Process

Admission to a degree program at CSULB is a two-part process that requires acceptance by both the department and the University into a specific degree program. Most applicants complete the Art Department review process before making a formal application to the University. (See the detailed information on CSULB graduate application and admission requirements earlier in this catalog.) Call the Art Student Services Office at (562) 985-7819 to obtain the Art application packet.

The departmental reviews are held the month of March (deadline for paperwork and slides is March 1) for Fall admission and the month of October (deadline October 1) for Spring admission. Application materials (see "Departmental Application Requirements") are due in the Student Services Office in FA4-106 and then are forwarded to the appropriate program major, where they are reviewed by the program faculty. Some

programs accept interviews and faculty may contact the applicant. While most programs review with an end of the month deadline, Drawing and Painting has a formal review the first available Saturday of the deadline month.

Program review decisions will be sent out by the end of the month. This allows students to file the required University applications by the appropriate deadlines of May 15 (there are no departmental reviews during the summer) and December 1.

Acceptance to a degree program in Art: After submitting the Art Department application materials, those who pass the program review are recommended by the faculty to be admitted as either Classified or Conditionally Classified. A Classified Graduate has satisfied all prerequisites. A Conditionally Classified Graduate has outstanding prerequisites to complete. Acceptance is not complete until the applicant files a CSU Graduate Application at the Enrollment Services Office and has received a formal letter of acceptance from this office.

NOTE: The Art Department requires a GPA of 3.0 in upper division (junior and senior level) art prerequisite units for acceptance to our graduate program. All applicants must be accepted by the Art Department in order to be officially accepted by the University. There is no fee for the departmental application process.

Foreign Students must be accepted by the Art Department and pass the TOEFL examination (minimum score of 550) before they can be admitted to the University. Foreign students must apply to CSULB through the Center for International Education at (562) 985-5476.

Degree Outside Art: Those who have a degree in another field need only complete the required Studio Art and/or Art History prerequisites to qualify for applying for the Department of Art MA or MFA degrees. To earn needed prerequisites at CSULB, Art Department courses may be taken through the Open University enrollment program in the University College and Extension Services office, phone (562) 985-5561.

University Admissions Process: Applicants must file a complete application as described in the California State University Graduate Admissions booklet. 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.

The open filing periods (at the Enrollment Services Office, Brotman Hall) begin early: October 1 for the following Fall semester and August 1 for the following Spring semester. Call (562) 985-4145 or 1655 to obtain a CSU application booklet or apply online at www.csumentor.edu There is a \$55.00 fee for the University application process. (Do not send the Art Department this fee; we will send it back to you.)

MA/MFA Prerequisites

1. A bachelor's degree from an accredited institution.
2. A minimum of 36 units in Art, including at least 30 at the upper division (300-400) level, and a GPA of 3.0 in upper division Art and Art History units.

Specific prerequisites for each major:

Art Education applicants must complete 36 units in a combination of Studio Art, Education and Art History classes comparable to those required for an Art Education major at this university:

15 upper division units (junior & senior level)
approved by the Art Education faculty

9 upper division units of Art or Education electives
12 units Art History (6 may be lower division, 6 must be upper division)
36 total units required

Art History applicants must complete 36 units comparable to those required for an Art History major at this university:

15 upper division units in Art History, which must include AH 307- Historiography in Art and either AH 308 -Art Theory or AH 309 -Art Criticism.

9 upper division units of Art or Art History electives

12 units (or the equivalent) of foreign language

36 total units required

NOTE: Art History majors must complete two years (or a minimum of 12 units) of college-level French or German with an average grade of "B" or better, or pass the Art History In-house Foreign Language Exam within the first year of study. (With approval from the Art History faculty, another language may be substituted.)

Studio Art applicants must complete 36 units in Studio Art and Art History comparable to those required for a Studio Art major at this university:

15 (for MA) or 18 (for MFA) upper division units in the specific program area

9 (for MA) or 6 (for MFA) upper division units of Art electives

12 units Art History (6 may be lower division, 6 must be upper division)

36 total units required

Departmental Application Requirements

Art Education: Submit the Department of Art application, a portfolio of studio work, transcripts, and two letters of recommendation

Art History: Submit the Department of Art application, transcripts, and two letters of recommendation

Studio Art: Submit the Department of Art application, a portfolio of studio work, transcripts, and two letters of recommendation

A faculty list is provided in the Art Department application packet; contact the appropriate professor if you need particular information on a specific program.

Transcripts

If you apply to the department first, we will accept photocopies. If you are also formally applying to the University, two official (sealed) sets are required; send one to Enrollment Services and one to the Art Department.

Transfer Units

With faculty approval, up to six 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, the total of 30 units will be accepted into the MFA degree.

Degree Requirements for the MA and MFA

1. Successful completion of all MA or MFA course requirements (selection of classes determined by the student and the three faculty members on their Graduate Committee).

These include:

MA in Art Education: 30 units of approved graduate and asterisked (*) upper division units to include a minimum of 18 in the major. At least 60% of the 30 units must be 500/600 level courses taken at CSULB, and must include Art 509A, 509B,

601A and 601B. 6 units of graduate level Art History beyond the 12 units taken as prerequisites, to complete a cumulative total of 18 units. Final requirements are the completion of a written Thesis or a Project with a Project Report, documentation, orals and comprehensive exam (Art 698A).

MA in Art History: 30 units of approved graduate and asterisked (*) upper division units to include a minimum of 18 in the major. At least 60% of the 30 units must be 500/600 level courses taken at CSULB. Satisfying foreign language proficiency (see Advancement requirements below). The final requirement is the completion of a written Thesis (AH 698).

MA in Studio Art: 33 units of approved graduate and asterisked (*) upper division units to include a minimum of 21 in the major. 6 units of graduate level Art History beyond the 12 units taken as prerequisites, to complete a cumulative total of 18 units. Final requirements are the completion of a Project (Art 698B) and presentation of a Project Exhibition (Art 692) with a written Artist's Statement.

MFA (Studio Art): 60 units of approved graduate and asterisked (*) upper division units to include a minimum of 36 in the major. At least 60% of the 60 units must be 500/600 numbers taken at CSULB. Six units of graduate level Art History beyond the 12 units taken as prerequisites are required, for a cumulative total of 18 units. Six units in Art Department Graduate Seminar courses 690A & B are also required for the MFA program. Final requirements are the completion of a Project and Project Report (Art 699), and the Project Exhibition (Art 692).

2. A minimum overall GPA of 3.0, with no grade below a "C".
3. Successful completion of the Writing Proficiency Exam (WPE), usually taken the first semester in residence at CSULB and required to be passed prior to Advancement to Candidacy.

4. Successful completion of an Advancement to Candidacy review. Reviews occur after taking 15 MA units or 30 MFA units and require the submission of a complete list of coursework for the master's degree. In addition:

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 Art Department 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 (1 unit, no credit) through University Extension is required in order to maintain in 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 "Department of Art Graduate Guidelines," given to each student accepted into a master's program.

Graduate Certificate Program in Museum Studies (code ART_CT02)

The Certificate Program in Museum Studies is open to graduate students in museum related fields including the visual arts, science, history, but does not exclude other fields. The

initial program is to be devoted primarily to art museum studies.

Admission to the program is by permission of the museum studies faculty within the Art Department. Interested students should apply to the Director, the Museum Studies Program.

Requirements

A total of 30 units to include: ART 435, 545A-B taken consecutively beginning in the spring semester, 542 in museum internship; ART 307 and 15 additional units selected from ART 499Q, Art History, Anthropology, Business Administration, English, Instructional Media, Journalism or Public Policy and Administration, subject to approval of the director of the program at the time of admission to ART 545A.

Foundation Art

The classes listed below are the foundation art classes that are required of all studio art majors. When foundation classes are chosen, be aware of the prerequisites; do not take the classes out of order.

- AH 115A,B,C. Foundation Art History I, II, III
- 130. Foundation Two-Dimensional
- 131. Foundation Three-Dimensional
- 181. Foundation Drawing
- 184. Foundation Life Drawing
- 187. Foundation Painting

Art Courses (ART)

All courses are Letter grade only (A-F) unless otherwise stated.

Lower Division

10. Art Matrix (1)

Participation in art and design exhibitions, openings, lectures and special events. Required of art majors. Must be taken for 1 unit in 5 different semesters for a total of 5 units. Repeatable to 5 units. These units do not count toward graduation. Credit/No Credit grading.

100. Perceptual Skills Through Drawing (3)

Prerequisite or corequisite: A General Education Foundation class. Basic theory and concepts of art learned through drawing, with emphasis on developing perceptual skills. (2 hrs. lec., 3 hrs. lab.)

110. Introduction to the Visual Arts (3)

Prerequisite or corequisite: A General Education Foundation class. Exploration of the meanings, purposes, and styles of art; introduction to the materials and forms of painting, printmaking, sculpture, and architecture. Orientation to the arts of Africa, Asia, the Americas, Europe, and the Islamic world. Development of an awareness and understanding of diverse cultures through examination and comparison of their arts and artifacts, past and present. Illustrated lectures, supplemented by individual field activities utilizing the abundant visual arts resources of greater Los Angeles.

130. Foundation Two-Dimensional (3)

Introduction to, and exploration of, the basic principles, components and terminology of two dimensional design. Students apply these in a series of problem solving exercises to develop a working vocabulary of those fundamental visual elements and relationships applicable to all forms of visually creative endeavor. (6 hrs. lab.)

131. Foundation Three Dimensional (3)

Investigation and problems in the organization of three-dimensional phenomena. (6 hrs. lab.)

141. Basic Photography (3)

Prerequisites: ART 130 or 182, 181. A beginning course to familiarize students with the fundamentals of photography. Units pertaining to cameras, exposure meters, films, darkroom technique, lighting, portraiture and optics. (6 hrs. lab.)

149. Introduction to Computer Art (3)

Prerequisites: ART 130. An introduction to the basic operating characteristics of the computer and a project-based creative exploration of major art-related software programs such as Illustrator, Photoshop QuarkXpress, Painter, Dimensions, etc., with exposure to research and connectivity capabilities. Not open to students who have credit in ART 349A. (6 hrs. lab.)

151A. Beginning Ceramics: Handbuilding (3)

Prerequisites/Corequisites: ART 131. Introduction to ceramics as an art making material using handbuilding techniques such as slab, coil, and molding, including glazing and processes. (6 hrs. lab.) (CAN ART 6)

151B. Beginning Ceramics: Wheel Throwing (3)

Prerequisites/Corequisites: ART 131. Introduction to ceramics as an art making material emphasizing the use of the potters wheel to develop forms. Includes glazing and firing. (6 hrs. lab.)

161. Foundation Life Sculpture (3)

Prerequisites/Corequisites: ART 131,181, or permission of instructor. Modeling from the human figure with emphasis on composition. Course fee required. (6 hrs. lab.)

181. Foundation Drawing (3)

Introduction to drawing with emphasis on perspective, light, shadow, and volume in composition using a variety of media. (6 hrs. lab.) (CAN ART 8)

182. Color Theory and Composition (3)

An intensive study of the behaviors and traditions of color composition with an emphasis on fine arts application. Using theories of the major colorists as a structure, studio projects provide hands-on exploration of specific topics. (6 hrs. lab.)

184. Foundation Life Drawing (3)

Prerequisites: ART 181. Introduction to drawing from the human figure. Course fee required. (6 hrs. lab.)

187. Foundation Painting (3)

Prerequisites: ART 130 or 182, 181. Introduction to painting problems using opaque media. (6 hrs. lab.) (CAN ART 10)

221. Shop Orientation (1)

Intended to give students a general familiarity with the student workshop facilities as well as specific instruction on safety procedures and methods in the use of workshop tools and equipment. Students shall attend safety lectures and technical demonstrations followed by hands-on experience in the use of shop facilities. Projects will familiarize students with commonly used machines in the shop and shall facilitate the acquisition of basic woodworking skills. Credit/No Credit grading only. (2 activity hours)

223. Lettering-Typography (3)

Prerequisite: ART 181, 130 or 182. Introduction to historic and contemporary letterforms, with emphasis on recognition, construction and representation. Students apply design fundamentals to the modification, combination and composition of existing typographic forms. Computers may be utilized. (6 hrs. lab.)

263. Beginning Sculpture (3)

Prerequisites/Corequisites: ART 131, 181, or permission of instructor. Principles of sculpture expressed through basic experiences in modeling, carving, construction and mold making. (6 hrs lab) (CAN ART 12)

271. Rendering (3)

Prerequisite: ART 181, 130 or 182. Graphic visualization for convincing representation. (6 hrs. lab.)

Upper Division

The Art Department upper division courses fall into several curricular sub-groups, as follows:

Art Education

(ART 407 and 499P are acceptable for the M.A. with a specialization in Art Education.)

300. Art, Adolescence, and the Child

*301. Cross-Cultural Perspectives in Art Education

305. Art Disciplines and New Technology

*407. Art Practicum
412./512. Aesthetic Theories and Art Education
415. On-Site Studies in Art Education
*499P. Special Studies in Art Education

Art History

AH *307. Historiography in Art
AH *308. Art Theory
AH *309. Art Criticism
AH *364. History of Ceramics
AH *365. History of Prints and Drawings
AH 401./501. American Art
AH 408./508. Early Christian and Byzantine Art
AH 409./509. Romanesque Art
AH 410./510. Gothic Art
AH 411./511. History and Criticism of Photography
AH 416./516. Greek Art
AH 417./517. Roman Art
AH 423./523. Early Renaissance Art in Italy
AH 424./524. High Renaissance Art in Italy
AH 425./525. Northern Renaissance Painting
AH 426./526. Baroque and Rococo Trends in Art
AH 427./527. Baroque Art: Court and Middle Class
AH 436./536. Neo-Classicism to Romanticism, 1789-1850
AH 437./537. Impressionism to Post-Impressionism, 1850-1900
AH 438./538. Twentieth Century Art to 1945
AH 439./539. Twentieth Century Art from 1945
AH 440. Art and Society
AH 455./555. Traditional Art of Africa: A Thematic Approach
AH 456./556. American Indian Art: Western Perspectives
AH 457./557. Pre-Columbian Mexican Art
AH 465./565. Ancient Art of the Near East
AH 466./566. Buddhist Art of India and S.E. Asia
AH 467./567. Hindu and Islamic Art of India
AH 468./568. Early Chinese Art
AH 469./569. Later Chinese Art
AH 470A./570A. Japanese Buddhist Art to 1500
AH 470B./570B. Japanese Art 1500-1868
AH 496. Special Studies in Art History
497. Special Studies in Art History

Ceramics

*341A. Intermediate Ceramics: Handbuilding
*341B. Intermediate Ceramics: Wheel Throwing
*343A. Ceramics Sculpture
*343B. Advanced Wheel Throwing
*352A. Ceramics: Glaze Technology
*352B. Ceramics Plaster Shop
*451A-B. Advanced Ceramics
453. Seminar in Ceramic Arts
491A. Ceramics: Senior Project
*499A. Special Studies in Ceramics

Drawing and Painting

381. Intermediate Drawing
383. Life Painting
384. Intermediate Life Drawing
*385. Watercolor Painting
*387. Painting
*389. Materials and Craft of Drawing and Painting
449. Experimental Practices
*481. Advanced Drawing
*483. Advanced Life Painting
*484. Advanced Life Drawing
*487. Advanced Painting

*492F. Concentrated Studies in Life Drawing
*492G. Concentrated Studies in Abstract Painting
*492Z. Concentrated Studies in Life Painting
*499D. Special Studies in Drawing
*499K. Special Studies in Painting

Fiber

*316. Surface Design
*317. Surface Design
*328A. Fiber: Sculpture
*328B. Fiber: Sculpture
*428A-B. Weaving
*430. Fiber: Papermaking and Artist Books
432 Fiber: Advanced
491B. 3-D Media -:Senior Project
*499N. Special Studies in Fiber

Graphic Design (Visual Communications)

318. Typographic Design
*322A-B. Visual Communication Design
*323. Visual Communication Design/Production
*325. Packaging Design
326. Computer Graphics
329. Advertising Design
*331. Visual Communications Design/Concept Development
389. New Media Design
*420. Visual Communication Design Workshop
*422A-B. Advanced Visual Communications Design
*442. Internship in Visual Communications
*499S. Special Studies in Visual Communications Design

Illustration and Biomedical Art

*371A-B. Illustration
*372. Anatomy for Artists
*373. Costumed Figure Drawing
*374A-B. Biomedical Rendering
*471A./B. Advanced Illustration
*499F. Special Studies in Illustration

Metal

355A. Enameling
*356. Jewelry Casting
*357A-B. Beginning Metals and Jewelry
*358A-B. Metalsmithing
359A. Architectural Metalwork and Blacksmithing
359B. Sculptural Metalwork
458A,B. Advanced Metalsmithing/Jewelry and Enameling
491B. Senior Project
*499J. Special Studies in Metalsmithing and Jewelry

Museum Studies

*435. Introduction to Museums
*499Q. Special Studies in Museum Studies

Photography

*340. Intermediate Photography
*342A. Color Photography
406A. Digital Imagery for the Arts
406B. Advanced Digital Imagery for the Arts
414./514. Documentary Photography
*444. Fine Print Photography

- *447. Photography Studio Specialties
- *449. Experimental Practives in Photography
- 491C. Photography – Senior Project
- *499V. Special Studies in Art Photography

Printmaking

- 370. Printmaking
- *376. Printmaking: Relief Printing
- *377. Printmaking: Silkscreen
- *378. Printmaking: Etching
- *379. Printmaking: Lithography
- *475. Printmaking: Photo Processes
- *480. Printmaking: Monotype/Monoprint
- 491P. Printmaking: Senior Project
- *499R. Special Studies in Printmaking

Sculpture

- 360A. Intermediate Sculpture
- 360B. Intermediate Sculpture
- *361. Life Sculpture
- *362A. Sculpture Foundry: Investment Casting
- *362B. Sculpture: Molding and Reproduction
- *363. Sculpture: Carving and Fabrication
- 450A,B. Intermedia
- 460A. Advanced Sculpture
- 460B. Advanced Sculpture
- *461. Advanced Life Sculpture
- *491F. Sculpture Senior Project

Wood

- *354A-B Wood
- *454A-B. Handcrafted Furniture
- 491B. 3-D Media Fiber/Metal/Wood and Integrated Media: Senior Project
- *499B. Special Studies in Wood

Art Courses (ART)

All courses are Letter grade only (A-F) unless otherwise stated.

Upper Division

300. Art, Adolescence, and the Child (3)

This course provides experience in the visual arts appropriate to developing self-expression according to guidelines found in the California Visual and Performing Arts Framework while introducing children's artistic and aesthetic development. Following the current content standards established by the State of California, students will develop aesthetic perception; learn skills of analysis, interpretation and judgment for application to visual art; and gain an understanding of the historical and cultural contexts of visual art. (6 hrs. lab.)

*301. Cross Cultural Perspectives in Art Education (3)

Prerequisites: Completion of 12 units of Art Foundation. A study of the diversity of theory and practice in art and art education as understood in and across cultures. Application of the California Visual and Performing Arts Framework for art education to the integration of content from art history, art production, theory and criticism, and aesthetic viewpoints reflecting a variety of racial, ethnic, linguistic, gender, sexual, cultural and cross-cultural perspectives. This course will also address issues of culturally appropriate practice for understanding art across cultures. (6 hrs. lab.)

305. Art Disciplines and New Technology (3)

Prerequisites: Completion of 12 units of Art Foundation. Development of skills in making and talking about art through interrelating art production with art criticism, cultural-historical connections, and philosophical aesthetics. Emphasis will be placed on the newer art forms and technology including video and computer which help provide additional approaches for the artist and art educator. Course fee required. (6 hrs. lab.)

309. Studio Art For Educators (3)

This course examines the studio art discipline with relationship to educational practice. Concepts, methods, and evaluative techniques in studio art will be explored, with production of a body of work a major course component. Issues in studio art and in education which impact one another will be investigated, as will application of studio art in educational programs and venues following current content standards established by the State of California. (6 hrs. lab.)

*316. Fiber: Pattern Design and Printing (3)

Prerequisites: ART 130 or 182, 131, 181, 187; six units from AH 115A, 115B, 115C. Variety of design concepts for both hand and commercial application of pattern to textiles and other surfaces. To include pattern system design, stamping, and silkscreen printing. (6 hrs. lab)

*317. Fiber: Textile Dyeing (3)

Prerequisites: ART 130 or 182, 131, 181, 187; six units from AH 115A, 115B, 115C. Variety of design concepts and processes to include chemical and antural dye technology with discharge, shibori, batik, and direct painting techniques. Not open to students with credit for ART 327B. (6 hrs. lab.)

318. Typographic Design (3)

Prerequisites: ART 130 or 182, 181, 184, 223; six units from AH 115A, 115B, 115C; or permission of instructor. More complex design experiences with type families, exploration of combinations of display and text; development of logotypes and design of new typographic forms. Computers may be utilized. (6 hrs. lab.)

320A. Issues in Contemporary Art into the Twenty-first Century (3)

A lecture course focusing on art of the 1970s, 80s, 90s and into the twenty-first century. Course is to focus on art of this period, how it relates to a prior history and what it might indicate for the future. Course is to expose students to a broad range of practice crossing all disciplines of the visual arts. Course is to involve multiple guest speakers and visits to on-campus lectures in order to give students first-hand experience of artists working in the field, and the creative, conceptual, and practical concerns these artists deal with. The primary role of the instructor is to serve as a "facilitator" for guests and presentations, and as a source of information. Instructor should introduce multiple points of view.

320B. Practical and Theoretical Issues in the Visual Arts (3)

Exploration of significant issues for artists involved with visual communication (illustrators, graphic designers and photographers): societal roles, quality and trends, artistic integrity, ethics, professionalism, creative collaboration, technological change, globalization, and cultural diversity. Discussion of business practices for the self-employed and staff artist, including self-promotion, portfolio preparation, pricing and legal issues. Recommended for the final year of study.

*322A,B. Visual Communication Design (3,3)

Prerequisites: For ART 322A: ART 130 or 182, 131, 181, 184, 187, 223 and 6 units from AH 115A, 115B, 115C. For ART 322B: ART 322A, 323. Introductory and intermediate experiences in conceptualization, design and finalization of projects appropriate to the visual communication profession. Computers may be utilized. (6 hrs. lab.)

*323. Visual Communication Design/Production (3)

Prerequisites: Visual communications major or consent of instructor. Computer-based introduction to design and production techniques for major printing processes from concept to digital finished art. Field trips, lectures, critiques. (6 hrs. lab.)

*325. Packaging Design (3)

Prerequisite: Visual Communications major or consent of instructor. Materials, processes and the design of packaging. (6 hrs. lab.)

326. Computer Graphics (3)

Prerequisites: ART 322A. Entry level introduction to the graphics-oriented computer, emphasizing its potential as a visual communication design tool. Includes "hands on" exploration of the major software applications as related to layout, typography and illustration. (6 hrs. lab.)

*328A. Fiber: Sculpture (3)

Prerequisites: ART 130 or 182, 131, 181, 187; six units from AH 115A, 115B, 115C. In this introductory course the student will explore concepts and materials using non-loom textile techniques. Development from the 2-D relief surface to full 3-D form will take place. The basic fiber structures of stitching, wrapping, feltmaking, papermaking, and coiling will be introduced. (6 hrs. lab)

*328B. Fiber: Sculpture (3)

Prerequisites: ART 328A. Designed to strengthen a working understanding on non-loom fiber structures. There will be an emphasis on the development of personal expression within the media. (6 hrs. lab)

329. Advertising Design (3)

Prerequisites: ART 322A, 331, majors only. This course will explore small space advertising, television, and outdoor billboards from the conceptual stage through comprehensive layouts. (6 hrs. lab.)

331. Visual Communications Design/Concept Development (3)

Prerequisites: ART 130, or 182, 181, 184, 187, 318, 322A; 6 units from AH 115A, 115B, 115C. Development of conceptual thinking and visual representational skills from thumbnail sketches to full size layouts will be covered. Emphasis on various approaches to problem solving in advertising and design. Corporate identity and page layout will also be addressed. (6 hrs. lab.)

*340. Intermediate Photography (3)

Prerequisites: ART 130 or 182, 141, 181, 184, 187; 6 units from AH 115A, 115B, 115C. More advanced black and white darkroom and camera work. An introduction to the view camera as well as the development of a body of work. (6 hrs. lab.)

*341A. Intermediate Ceramics: Handbuilding (3)

Prerequisites: ART 130 or 182, 131, 151 A, 181; six units from AH 115A, 115B, 115C. Design problems with handbuilt ceramic forms with emphasis on surface. (6 hrs. lab.)

*341B. Intermediate Ceramics: Wheel Throwing (3)

Prerequisites: ART 130 or 182, 131, 151 B, 181; six units from AH 115A, 115B, 115C. Design problems with wheel-thrown ceramic forms with emphasis on surface. (6 hrs. lab.)

*342A. Color Photography (3)

Prerequisite: ART 340. Survey of current color materials and processes with emphasis on exposing, developing and printing. Contemporary approach to color photography will be stressed. (6 hrs. lab.)

*343A. Ceramics Sculpture (3)

Prerequisites: ART 341A. Advanced studies in ceramic sculpture. (6 hrs. lab.)

*343B. Advanced Wheel Throwing (3)

Prerequisites: ART 341B. Advanced studies in ceramic form employing the potters wheel. (6 hrs. lab.)

349. Computer Art (3)

Prerequisites: ART 149, AH 115A, 115C. 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. Not open to students who have credit for ART 349B. (6 hrs. lab.)

*352A. Ceramics: Glaze Technology (3)

Prerequisite: ART 130 or 182, 131, 151A or 151B, 181; six units from AH 115A, 115B, 115C. Nature of raw materials as they relate to the development of clay bodies and ceramic glazes. (6 hrs. lab.)

*352B. Ceramics Plaster Shop (3)

Prerequisites: ART 130 or 182, 151A or 151B, 181; six units from AH 115A, 115B, 115C. The use of plaster molds for making ceramic

art including press molds, slip casting, and jiggering. (6 hrs. lab.)

*354A,B. Wood (3,3)

Prerequisites: For ART 354A: ART 130 or 182, 131, 181; six units from AH 115A, 115B, 115C. For ART 354B: ART 354A. Woodworking processes techniques and concepts in the design and making of utilitarian art objects. (6 hrs. lab.)

*355A. Enameling (3)

Prerequisite: ART 130 or 182, 131, 181; six units from AH 115A, 115B, 115C. Techniques, materials and concepts of enameling on metals. Introduction to tools and metalworking techniques associated with making enameled metal objects. Emphasis on the exploration of characteristics of enamels and metals, stressing individual advancement of interest and expression. Course fee required. May be repeated once for credit. (6 hrs. lab.)

*356. Jewelry Casting (3)

Prerequisite: ART 130 or 182, 131, 181; six units from AH 115A, 115B, 115C; or consent of instructor. The design and creation of jewelry through lost-wax casting techniques and processes. Course fee required. May be repeated once for credit. (6 hrs. lab.)

*357A-B. Beginning Metals and Jewelry (3-3)

Prerequisites: For ART 357A: ART 130 or 182, 131, 181, 187; six units from: AH 115A, 115B, 115C. For ART 357B: ART 357A. The design and creation of jewelry. Course fee required. (6 hrs. lab.)

*358A. Metalsmithing (3)

Prerequisites: ART 357A. The design and creation of flatware and hollowware. Course fee required. (6 hrs. lab.)

*358B. Metalsmithing (3)

Prerequisites: ART 357A. The design and creation of flatware and hollowware. Course fee required. (6 hrs. lab.)

*359A. Architectural Metalwork and Blacksmithing (3)

Prerequisite: ART 130 or 182, 131, 181; six units from AH 115A, 115B, 115C. Techniques, materials and concepts of the metal craft for developing art forms in larger scale and in an 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 for a maximum of 6 units. Course fee required. (6 hrs. lab.)

*359B. Sculptural Metalwork (3)

Prerequisite: ART 130 or 182, 131, 181; six units from AH 115A, 115B, 115C. 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 for a maximum of 6 units. Course fee required. (6 hrs. lab.)

360A. Intermediate Sculpture (3)

Prerequisites: ART 130 or 182, 131, 161, 181, 263; 6 units from AH 115A, 115B, 115C or consent of instructor. Exploration and refinement in wide range of sculptural techniques and strategies. Introduction to installations and public work. Some work will be with time-based kinetic art. Course will include introduction to 3-D art theory. (6 hrs. lab.)

360B. Intermediate Sculpture (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. Course will include introduction to 3-D art theory. (6 hrs. lab.)

*361. Life Sculpture (3)

Prerequisite: ART 130 or 182, 131, 161,181; six units from AH 115A, 115B, 115C. Intensive study of the figure through individual student concepts. Mold and casting techniques and direct plaster parging. Course fee required. (6 hrs. lab.)

*362A. Sculpture Foundry: Investment Casting (3)

Prerequisites: ART 130 or 182, 131, 161, 181; six units from AH 115A, 115B, 115C. The traditional lost wax techniques of casting non-ferrous metal. Wax formation and manipulation, gating theory and practice. Investment procedures, foundry management, metal casting, patination and tool making. (6 hrs. lab.)

*362B. Sculpture: Molding and Reproduction (3)

Prerequisites: ART 130 or 182, 131, 161, 181; six units from AH 115A, 115B, 115C. Construction and use of flexible and plaster molds. (6 hrs. lab.)

***363. Sculpture: Fabrication and Carving (3)**

Prerequisites: ART 130 or 182, 131, 161, 181, 263; six units from AH 115A, 115B, 115C, or consent of instructor. Exploration of fabrication using a number of materials, such as metal, wood, fabric, and objects, along with carving techniques in both traditional and non-traditional materials. Emphasis will be on techniques, personal content, and form. (6 hrs. lab.)

***370. Printmaking (3)**

Prerequisites: ART 130 or 182, 131, 181, 187; six units from AH 115A, 115B, 115C. A studio course exploring a range of printmaking techniques and imagery, selected from the areas of etching, lithography, silkscreen, relief and monoprinting. (6 hrs. lab.)

***371A,B. Illustration (3,3)**

Prerequisites: For ART 371A: ART 130 or 182, 131,181,184,187; six units from AH 115A, 115B, 115C. For ART 371B: ART 223, 271, 371A. Editorial and advertising drawing; professional media, skills and techniques survey. (6 hrs. lab.)

***372. Anatomy for Artists (3)**

Prerequisites: ART 130 or 182, 131, 181, 184; six units from AH 115A, 115B, 115C. Skeletal and muscle structure emphasizing the development of skill in depicting the human figure. Course fee required. (6 hrs. lab.)

***373. Costumed Figure Drawing (3)**

Prerequisites: ART 371A, 372; six units from AH 115A, 115B, 115C. Drawing and painting from costumed models with props and controlled lighting. Emphasis is on the development of a sense of "staging." The 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 required.

***374A,B. Biomedical Rendering (3,3)**

Prerequisite: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C; or consent of instructor. Introduction to and practice in techniques of descriptive drawing and press reproduction of drawing. Emphasis on skill. (6 hrs. lab.)

***376. Printmaking: Relief Printing (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. 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.)

***377. Printmaking: Silkscreen (3)**

Prerequisites: ART 130 or 182, 181, 184; six units from AH 115A, 115B, 115C. Instruction in fine art screen printing techniques and image development, including resist, paper, film, emulsion and alternative stencil methods. (6 hrs. lab.)

***378. Printmaking: Etching (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. Instruction in intaglio printing techniques and image development, including etching, engraving, dry-point, aquatint and alternative platemaking methods. In black and white and color. (6 hrs. lab.)

***379. Printmaking: Lithography (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. 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.)

381. Intermediate Drawing (3)

Prerequisites: ART 130 or 182, 181, 184; six units from AH 115A, 115B, 115C. Problems and concepts in drawing using a variety of media. (6 hrs. lab.)

***382A,B. Production for Fine Art (3,3)**

Prerequisites: ART 149, 371B, 372, or consent of instructor. A: Exploration of printing and reproduction process related to the needs of the artist, illustrator and museum professional, and an introduction to the skills and vocabulary necessary for the preparations of art for print and electronic media. Emphasis is on the direct inter-

action with the various commercial production professionals. (6 hrs. lab.)

***383. Life Painting (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. Painting from the human figure with emphasis on representing form in space, structure, color, value, and composition. Course fee required. (6 hrs. lab.)

***384. Intermediate Life Drawing (3)**

Prerequisites: ART 130 or 182, 181, 184; six units from AH 115A, 115B, 115C. Continued study in drawing from the human figure from direct observation. Course fee required. (6 hrs. lab.)

***385. Watercolor Painting (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. Nature and use of the watercolor media. (6 hrs. lab.)

***386A. New Media Design (3)**

Prerequisites: ART 326. Basic theory and use of multimedia software with emphasis on concept and aesthetics as it relates to interactive design. Hands-on approach to major motion graphic, web-based and interactive software applications with focus on layout, typography, color, movement, and animation. (6hrs. lab.) Not open to students who have credit for ART 386.

386B. Advanced New Media (3)

Prerequisite: 386A or consent of Instructor. Advanced application and design within new media environments. Emphasis on advanced knowledge of software with attention being paid to concept and aesthetics as it related to interactive design. A hands-on/research-based approach to the exploration of major motion graphic, web-based and interactive software applications with focus on layout, typography, color, timing, movement, animation, and interactivity. (6 hrs. lab.)

***387. Painting (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. Problems and concepts in space, form, structure, color and content in studio painting. (6 hrs. lab.)

***389. Materials and Techniques of Drawing and Painting (3)**

Prerequisites: ART 130 or 182, 181, 184, 187; six units from AH 115A, 115B, 115C. Theory and practice in the craft of drawing and painting. Limited to 3 units in one semester and a total of 6 units. Course fee required. (6 hrs. lab.)

406A./506A. Digital Imagery for the Arts (3)

Prerequisites: ART 149, 340, or consent of instructor. This course is a thorough examination of digital imaging through Adobe Photoshop software. Emphasis is placed on the relationship of digital imaging to photography. A variety of exercises will sharpen skills and reveal new thinking strategies necessary for fluency in digital media. Concentration on theory of media and representation as well as individual projects. (6 hrs lab.)

406B./506B. Advanced Digital Imagery for the Arts (3)

Prerequisites: ART 406A or 506A, 444. Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects. (6 hrs. lab.)

***407. Art Practicum (3)**

Prerequisite: Completion of 12 units of Art Foundation. Development of attitudes and skills required for the production, evaluation, and appreciation of the visual arts. Consideration of the value of the art process and product to the individual in an ethnically diverse society. Methods of inquiry used by artists, art critics, art historians and aestheticians will be examined in relationship to learning about art. The Art Education Bound Portfolio is begun in the course and a preliminary portfolio review is held for assessment of student competency in art. Course fee required. (6 hrs lab)

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.

414./514. Documentary Photography (3)

Prerequisites: ART 340, 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. (6 hrs. lab.)

415. On-Site Studies in Art Education (3)

Prerequisites: Completion of 12 units of Art Foundation. Theory is both generated and put into practice during study and participation at approved sites including The Art Workshop for Youth and Art to the Schools Program. Considerations are given to the various art and educational components found in state and national documents involving multifaceted, cross-cultural, and interdisciplinary experiences with art. (6 hrs lab)

***420. Visual Communication 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 are responsible for all project phases from design to production, print supervision and completion. Course may be repeated to a maximum of 9 units. (6 hrs. lab.)

***422A,B. Advanced Visual Communications Design (3,3)**

Prerequisites: For ART 422A: ART 322B, 323, 325. For ART 422B: ART 422A. ART 422A involves advanced projects in computer-based design, typography, photographic modification and grid layout systems development. ART 422B emphasizes advanced advertising design, art direction and campaign development for the advertising agency environment. (6 hrs. lab.)

***428A,B. Fiber: Woven Structures (3,3)**

Prerequisites: For ART 428A: ART 130 or 182, 131, 181, 187; six units from AH 115A, 115B, 115C. For ART 428B: ART 428A. Techniques and materials of woven structural textile design with emphasis on personal expression with the contemporary idiom. To include loom and off-loom processes. (6 hrs lab.)

***430. Fiber: Papermaking and Artist Books (3)**

Prerequisite: ART 328A. 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. (6 hrs. lab)

***432. Fiber: Advanced (3)**

Prerequisites: ART 130, 131, 181, 187 and 6 units chosen from ART 327, 328, 317, and 428A or 430). This course is designed for the advanced Fiber students. Students will work on conceptual assignments using materials and media from a wide range of fiber processes of their choice. there will be some reading and group discussion assignments as well. May be repeated to a maximum of 6 units. (6 hrs. lab)

***435. Introduction to Museums (3)**

Designed for students interested in pursuing the Museum Studies Certificate: also open to art majors and students from other disciplines. Study of current museums, their functions, services, audience and ethics. Field trips to local museums are included.

436A. Video Art (3)

Prerequisites: ART 149, 6 units from AH 115A, B, C or permission of the instructor. Introduction to the history and theory of new media in contemporary art; technical introduction into digital video and other forms of artistic expressions using digital media; practical work on media-installations and video-projects; experiments and research to develop new ways of media art display. (6 hrs. lab.)

436B. Video Art (3)

Prerequisites: ART 436B The course is a continuation of Art 436B; a continuation in the history and theory of new media in contemporary art; advancement in technical instruction in digital video and other forms of artistic expressions using digital media; practical work on media-installations and video-projects; experiments and research to develop new ways of media art display. (6 hrs. lab.)

440./540. Art in Public Places: Theory and Practice (3)

Prerequisites: ART 130, ART 131, and 6 units of Art History selected from AH 115A, 115B, 115C, or by permission of instructor. Exploration of various approaches to the production of art in public places. The history and development of art in public places will be explored in preparation for the creation of artist-initiated and commissioned temporary and permanent art works for the public sphere. Students will be exposed to the various viewpoints that influence the evaluation, production, selection, and commissioning

of temporary and permanent art projects in public spaces. Strategies explored for the conceptual development of projects will incorporate both individual and team approaches. (6 Hrs. Lab.)

***442. Internship in Visual Communications (3)**

Prerequisite: Visual Communications 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 six hrs. per week. May be repeated for a maximum of 6 units, limited to 3 units in one semester. (6 hrs. lab.)

***444. Fine Print Photography (3)**

Prerequisite: ART 340. Presentation of advanced printing techniques and darkroom skills. Includes printing chemistry, photographic papers and refined negative making as well as further exploration of the view camera. (6 hrs. lab.)

***447. Photography Studio Specialties (3)**

Prerequisites: ART 340, 444. A course designed to explore camera, laboratory techniques and professional practices as applied to studio work in photography. (6 hrs. lab.)

***449. Experimental Practices In Photography (3)**

Prerequisite: ART 340. Course work to generate experimental solutions to conceptual problems. Emphasis placed on non-traditional photographic processes and the exploration of new ideas and procedures for the development of art work. (6 hrs. lab.)

***450A. Intermedia (3)**

Prerequisites/Corequisites: ART 360A or permission of instructor. Course will allow exploration of a number of media and strategies new to the sculpture vocabulary, such as performance, installation, video, electronic media, other time-based media and mass media, in conjunction with other sculptural techniques. Reading material will provide insight into art theory and strategies pertaining to contemporary art practices. (6 hrs. lab)

***450B. Intermedia (3)**

Prerequisites/Corequisites: ART 360A, 450A or permission of instructor. Course, which is a continuation of ART 450A, will allow the ongoing exploration of a number of media and strategies new to the sculpture vocabulary, such as performance, installation, video, electronic media, other time-based media and mass media, in conjunction with other sculptural techniques. Reading material will strengthen insight into art theory and strategies pertaining to contemporary art practices. (6 hrs. lab)

***451A-B. Advanced Ceramics (3-3)**

Prerequisite: A: ART 343A or 343B. Individual problems in ceramics. (6 hrs. lab.) B: Prerequisites: ART 451A. Individual problems in ceramics. (6 hrs. lab.)

***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 for credit with study of different artists each semester up to a maximum of 6 units.

***454A,B. Handcrafted Furniture (3,3)**

Prerequisites: ART 354A and B. Concepts and skills necessary for the production of handcrafted furniture. Emphasis on the use of hand techniques as a means of understanding the philosophy and aesthetics of handcrafted furniture. (6 hrs. lab.)

***458A,B. Advanced Metalsmithing/ Jewelry and Enameling (3,3)**

Prerequisites: ART 357B, 358B or consent of instructor. Individual problems in metalsmithing, jewelry, enameling and architectural metalwork and blacksmithing. Course fee required. (6 hrs. lab.)

***460A. Advanced Sculpture (3)**

Prerequisites: ART 130 or 182, 131, 149 or 349, 161; six units from AH 115A, 115B, 115C, or consent of instructor. Within a set of problem-solving assignments, students work with media and content of their choice, exploring some material new to themselves. Course will further utilize strategies such as installations, site work, and time-based art. Course will include some theory and discussions on art-related issues. (6 hrs. lab)

***460B. Advanced Sculpture (3)**

Prerequisites: ART 460A or consent of instructor. Within a set of problem-solving assignments, students work with media and content of their choice, exploring some material new to themselves. Course will further utilize strategies such as installations, site work, and time-based art. Course will include some theory and discussions on art-related issues. (6 hrs. lab.)

***461. Advanced Life Sculpture (3)**

Prerequisites: ART 361, 362A and B. Large-scale sculpture from the model emphasizing expressive content. Work in clay and plaster, armature and stand construction, oil-clay formulation and advanced moldmaking techniques. Course fee required. (6 hrs. lab.)

***471A,B. Advanced Illustration (3,3)**

Prerequisites: For ART 471A: ART 371B; For ART 471 B: ART 471 A. Illustration in part from live models. ART 471B is open only to students in the Illustration option. Course fee required for 471B. (6 hrs. lab.)

473./573. Seminar in Photo-Based Art (3)

Prerequisite: Advanced standing in Photography or consent of instructor. Critical analysis of work by contemporary photo-based artists; the changing role of photo-based art as it becomes a central component of contemporary art. May be repeated for credit with study of different artists each semester up to a maximum of 6 units. (6 hrs. lab.)

***475. Printmaking: Photo Processes (3)**

Prerequisites: ART 130,141,181,184; six units from AH 115A, 115B, 115C. Instruction in the photo printmaking processes for lithography, etching and silkscreen using copy camera and experimental techniques to explore photographic and non-photographic imagery. (6 hrs. lab.)

480./580. Printmaking: Monotype/Monoprint (3)

Prerequisites: ART 130, 181,184, 187; six units from AH 115A, 115B, 115C. Instruction in all the aspects of the monotype and monoprint form of printmaking as an expansive medium capable of diverse 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. (6 hrs. lab.)

***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.)

***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 required. (6 hrs. lab.)

***484. Advanced Life Drawing (3)**

Prerequisite: ART 384. Continued study in drawing the human figure from observation with emphasis on structure, form and composition, as well as individual expression. Course fee 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.)

***489. Special Topics in Visual Art (1-3)**

Prerequisite: Consent of instructor. Topics of current interest in the visual arts will be selected for intensive study. May be repeated with different topics to a maximum of 12 units. Topics will be announced in the *Schedule of Classes*.

491A. Ceramics: Senior Project (1)

Prerequisite: ART 451A or 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. Credit/No Credit grading only. Course may be repeated for 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. The exhibition will culminate with a written thesis with

faculty approval. This class 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 for a maximum of 2 units.

491C. Photography – Senior Project (1) F,S

Planning, preparation, completion, and photographic slide documentation of a creative exhibition and written thesis as approved by faculty. This class should be taken in the last semester before graduation. Required of all Photography majors. Credit/No Credit grading only. Course may be repeated for a maximum of 2 units.

491F. Sculpture Senior Project (1)

Prerequisites: Senior Sculpture major; consent of instructor. Required by all Sculpture majors; class should be taken in the final semester of a student's BFA program. Students will complete their work, organize an exhibition and write an Artist's Statement. Credit/No Credit grading only.

491G. Drawing and Painting: Senior Project (1)

The exhibition of a cohesive body of work evidencing advanced study in Drawing and Painting. Planning, preparation, completion and photographic slide documentation of creative exhibition. Written project report and artist statement as approved by faculty. This class should be taken in the last semester before graduation. Required of all Drawing and Painting majors. Credit/No Credit grading only. Course may be repeated to a maximum of 2 units.

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. This class should be taken in the last semester before graduation. Required of all Printmaking majors. Credit/No Credit grading only. Course 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. Limited to 6 units in one semester and a total of 9 units. Course fee 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. Limited to 3 units in one semester. May be repeated for a maximum of 9 units. (6 hrs. lab.)

492Z./592Z. Concentrated Studies in Life Painting (3)

Prerequisites/Corequisites: 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. Limited to 3 units in one semester. May be repeated to a maximum of 9 units. (6 hrs. lab.)

***495. Field Studies in Art (1-6)**

Independent work with an instructor of student's choice, usually outside area of specialization. Department Chair or Undergraduate Advisor/Graduate Advisor approval, restricted to undergraduate and graduate art majors. Course may be repeated to a maximum of 6 units. (2-12 hrs. 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. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***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. Limited to 6 units in one semester and a total of 9 units. (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. Limited to 6 units in one semester and a total of 9 units. (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. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499J. Special Studies in Metalsmithing and Jewelry (3)**

Prerequisite: ART 458A or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in metalsmithing and jewelry. Course fee required. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499K. 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. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499M. Special Studies in Sculpture (3)**

Prerequisite: Sculpture major or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in sculpture. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499N. Special Studies in Fiber (3)**

Prerequisite: 3-D Media major or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in textile design. Limited to 6 units in one semester and a total of 9 units. (6 hrs. 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. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499Q. Special Studies in Museum Studies (3)**

Prerequisites: ART 435 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. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499R. Special Studies in Printmaking (3)**

Prerequisite: Printmaking major or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in printmaking. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499S. Special Studies in Visual Communications Design (3)**

Prerequisite: Visual Communications major or consent of instructor. Opportunity for extensive contract work with faculty supervision on problems in visual communications design. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

***499V. Special Studies in Art Photography (3)**

Prerequisite: Photography major or consent of instructor. Opportunity for extensive work, with faculty supervision, on individual problems in photography as an art form. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

Graduate Level

506A./406A. Digital Imagery for the Arts (3)

Prerequisites: ART 149, 340, or consent of instructor. This course is a thorough examination of digital imaging through Adobe Photoshop software. Emphasis is placed on the relationship of digital imaging to photography. A variety of exercises will sharpen skills and reveal new thinking strategies necessary for fluency in digital media. Concentration on theory of media and representation as well as individual projects. (6 hrs. lab.)

506B./406B. Advanced Digital Imagery for the Arts (3)

Prerequisites: ART 406A, 444, or consent of instructor. Exploration of theory and practice of digital imaging and advanced techniques. Emphasis on multimedia and individual projects. (6 hrs. lab.)

509A-B. Research in Art Education (2-2)

Prerequisite: Art Education major or consent of instructor. Advanced individual graduate problems in art education with projects related to specific learning situations.

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.

513. Photo Marketing Portfolio (3)

Prerequisite: ART 340. Professional practices and procedures for the development of an engaging photographic portfolio. Emphasis placed on photo-illustration, art direction, creative problem solving, and the development of a unique visual / conceptual style. (6 hrs. lab.)

514./414. Documentary Photography (3)

Prerequisites: ART 340, 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. (6 hrs. lab.)

540./440. Art in Public Places: Theory and Practice (3)

Prerequisites: ART 130, ART 131, and 6 units of Art History selected from AH 115A, 115B, 115C, or by permission of instructor. Exploration of various approaches to the production of art in public places. The history and development of art in public places will be explored in preparation for the creation of artist-initiated and commissioned temporary and permanent art works for the public sphere. Students will be exposed to the various viewpoints that influence the evaluation, production, selection, and commissioning of temporary and permanent art projects in public spaces. Strategies explored for the conceptual development of projects will incorporate both individual and team approaches. (6 Hrs. Lab.)

542. Internship in Museum Studies (3)

Prerequisites: ART 435 or consent of instructor. Student internship experience in selected museums, college and community art centers appropriate to the student's particular academic interest. Opportunity to work under supervision of museum professionals in the field to expand student understanding of the complexities, discipline and challenges in the profession. Limited to 6 units in one semester and a total of 9 units. (6 hrs. lab.)

544./444. Fine Print Photography (3)

Prerequisite: ART 340. Presentation of advanced printing techniques and mastery of darkroom skills. Includes exposure, development, processing chemistry, film and paper types, toners and archival processing (lab fee required). (6 hrs. lab.)

545A,B. Museum-Gallery Practices (3,3)

Prerequisites: ART 435 or consent of instructor. Pre-professional training in museum-gallery techniques: administration, exhibition, budget planning, curatorial problems, public relations, insurance, packing and shipping. The University Gallery will be the lab for practical experience; students will assist in conceiving and realizing exhibitions.

547./447. Photo Studio Specialties (3)

Prerequisite: ART 340. A course 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 (laboratory included). (6 hrs. lab.)

549./449. Experimental/Alternative Practices in Photography (3)

Prerequisite: ART 340. Course work to generate experimental solutions to conceptual problems. Emphasis placed 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. (6 hrs. lab.)

550. Intermedia (3)

Graduate course that will allow further exploration of a number of media and strategies new to the sculpture vocabulary, such as performance, installation, video, electronic media, other time-based media and mass media, in conjunction with other sculptural techniques. Reading material will strengthen insight into art theory and strategies pertaining to contemporary art practices. (6 hrs. lab.)

551A. Advanced Ceramics – Graduate (3)

Prerequisite: ART 451B. 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. (6 hrs. lab.)

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. (6 hrs. lab.)

554A-B. Handcrafted Furniture (3-3)

Prerequisite: ART 454B or consent of instructor. Advanced concepts and skills necessary for the production of handcrafted furniture. Emphasis on the use of hand techniques as a means of understanding the philosophy and aesthetics of handcrafted furniture. (6 hrs. lab.)

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. Course fee required. May be repeated for a maximum of 6 units. (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. Course fee required. Course may be repeated for a maximum of 6 units. (6 hrs. lab.)

564A-B. Advanced Wood Studio (3-3)

Prerequisite: ART 354B and consent of instructor. Advanced craft processes, techniques, and concepts used to make utilitarian objects. In conjunction with object making, research will be required in various aspects of the crafts field. (6 hrs. lab.)

573./473. Seminar in Photo-Based Art (3)

Prerequisite: Advanced standing in Photography or consent of instructor. Critical analysis or work by contemporary photo-based artists; the changing role of photo-based art as it becomes a central component of contemporary art. May be repeated for credit with study of different artists each semester up to a maximum of 6 units.

575. Printmaking: Advanced Photo Processes (3)

Prerequisite: Graduate Print student or consent of instructor. Graduate level work in one or more of the photo printmaking processes, with emphasis on photographic or non-photographic imagery. May be repeated for a maximum of 6 units in different topics. (6 hrs. lab.)

580./480. Printmaking: Monotype/Monoprint (3)

Prerequisites: ART 130, 181, 184, 187; six units from AH 115A, 115B, 115C. Instruction in all the aspects of the monotype and monoprint form of printmaking as an expansive medium capable of diverse 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. (6 hrs. lab.)

583. Advanced Life Graduate Painting (3)

An intensive studio course in painting from the model for graduate students. (6 hrs. lab.)

590. Special Problems in Studio Art (1-3)

Prerequisites: Consent of instructor. Special topics of current interest in studio art will be selected for intensive study. May be repeated with different topics to a maximum of 12 units. Topics will be announced in the *Schedule of Classes* (2-9 hrs. lab.) Course fee required.

A. Visiting Artists

591. Graduate Interdisciplinary Critique (3)

This is a weekly critique and discussion forum of art graduate students in all areas of studio practice/media. Emphasis is on discussion of student work and issues and readings relevant to this work, and on the development of critical and writing skills for

articulating opinions regarding art in general, and specifically regarding one's own work.

592Z./492Z. Graduate Concentrated Studies in Life Painting (3)

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. Limited to 3 units in one semester. May be repeated to a maximum of 9 units. (6 hrs. lab.)

599. Studio Problems in Art (3)

Prerequisite: Consent of Art Department. Advanced individual graduate projects, with faculty supervision, in an area of art specialization. Limited to 6 units one semester and a total of 12 units in any one area. Areas will be designated by letter at the time of registration: (a) ceramics, (b) wood, (d) drawing, (f) illustration, (j) metal (Course fee required), (k) painting, (l) life drawing (Course fee required), (m) sculpture, (n) fiber, (q) museum studies, (r) printmaking, (t) intermedia, (v) photography. Intermedia units will apply to the drawing and painting specialization. (6 hrs. lab.)

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. 601A is required for the M.A. in Art Education; 601B may be required by the student's M.A. committee.

649. Seminar in Drawing and Painting (3)

Graduate seminar involving advanced critical dialog related to contemporary drawing and painting with faculty peers and visiting artists. Additional activities include research, readings and presentations pertaining to contemporary professional practice within the changing art world. May be repeated for a maximum of 9 units.

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 for credit with study of different artists each semester up to a max. of 12 units.

690A. Graduate Seminar in Studio Art (Critical Studies) (3)

Prerequisite: Graduate M.F.A. student or consent of instructor. Selected reading and writing concerning topics relevant to student's specific disciplines in the visual arts with an opportunity for interdisciplinary discussion.

690B. Graduate Seminar in Studio Art (Professional Practices) (3)

Prerequisite: Graduate M.F.A. student or consent of instructor. Professional preparation for studio artists stressing practical concerns as well as current trends in art practices, theory and criticism.

692. Public Exhibition (2-3)

Prerequisite: Advancement to Candidacy and an registration in Art 698 or 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.

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. May be repeated to a maximum 6 units. (6 hrs. lab.)

694. Directed Studies Studio (1-3)

Independent studies in creative studio. Department Chair or Graduate Advisor approval, restricted to graduate art majors. Course may be repeated to a maximum of 3 units. (2-6 hrs. lab.)

695. Field Problems in Art (1-6)

Opportunity to study artistic monuments, objects, theories, techniques or literature at appropriate off campus locations. Department Chair or Graduate Advisor approval, restricted to graduate art majors. Course may be repeated to a maximum of 6 units. (2-12 hrs. lab.)

697. Directed Studies (1-3)

Independent studies in technical and/or historical aspects of art. Department Chair or Graduate Advisor approval, restricted to graduate art majors. Course may be repeated to a maximum of 3 units. (2-6 hrs. lab.)

698A. Thesis (1-6)

Prerequisite: Advancement to Candidacy and an approved Thesis or Project Statement. Execution and completion of an approved thesis, or a 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.

698B. 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, in conjunction with Art 692- Public Exhibition, of all candidates for the MA in Art, specialization in Studio Art.

699. Project (1-6)

Prerequisite: Advancement to Candidacy and an approved Project Statement. Execution and completion of a Studio Project and Project Report for the M.F.A. degree. Open only to Studio Art students. Required, in conjunction with ART 692 - Public Exhibition, of all candidates for the MFA in Art.

Art History Courses (AH)

All courses are Letter grade only (A-F) unless otherwise stated.

Lower Division

113A. Survey Asian Art: Early Sacred Cultures (3)

Prerequisites or corequisite: A General Education Foundation class. 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 to students who have credit in ART 113A.

113B. Survey Asian Art: Later Traditions (3)

Prerequisites or corequisite: A General Education Foundation class. 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 to students who have credit in ART 113B.

115A. Foundation Art History I (3)

Basic theoretical considerations about art and its relation to society in both Western and non-Western cultures. Not open to students who have credit in ART 115A.

115B. Foundation Art History II (3)

Prerequisites: A General Education Foundation class. Chronological survey of art as an integral part of Western culture from Pre-history through the Middle Ages. Not open to students who have credit in ART 115B. (CAN ART 2)

115C. Foundation Art History III (3)

Prerequisites: A General Education Foundation class. Chronological survey of art as an integral part of Western culture from Proto-Renaissance to contemporary. Not open to students who have credit in ART 115C. (CAN ART 4)

Upper Division

***307. Historiography in Art (3)**

Prerequisites: AH 115B, 115C, or consent of instructor. Consideration of standard research techniques and resources as well as composition and documentation of written reports specifically related to the study of art. Not open to students who have credit in ART 307.

***308. Art Theory (3)**

Prerequisites: AH 115B, 115C, or consent of instructor. Consideration of historic and contemporary theories and aesthetic frames of reference whereby what has been, or is, identified as art is so identified. Not open to students who have credit in ART 308.

***309. Art Criticism (3)**

Prerequisites: AH 115B, 115C, or consent of instructor. An examination of a variety of critical approaches to modern art. Discussions will be based upon the writings of 19th and 20th century art theorists and professional art critics. Not open to students who have credit in ART 309.

330I. Cross Cultural Visual Literacy (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Cross-cultural Visual Literacy is an exploration of how and what traditional art communicates about the culture from which it issues. Based on the premise that Art is an aesthetic counterpart of a culture's ethos, a method of inquiry has been designed to integrate: a) exposure to the basic technical aspects of art-making, together with b) a discussion of core concepts in two different culture- clusters, the Euro-American, and Pan-Asian. The significance of the concept of cultural relativity applied to the study of art cross-culturally will be emphasized. Not open to students with credit in ART 330I.

364. History of Ceramics (3)

Materials and techniques as they relate to the historical development of pottery styles and forms. Not open to students who have credit in ART 364.

***365. History of Prints and Drawings (3)**

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 365.

401./501. American Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. A survey of American art from 1760 to 1945. Emphasis will be given to painting from Colonial portraiture to 20th century Abstract Expressionism. Not open to students who have credit in ART 401 or 598A.

408./508. Early Christian and Byzantine Art (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 408 or 598B.

409./509. Romanesque Art (3)

Prerequisites: AH 115A, 115B, or consent of instructor. Arts of Northern Europe from Merovingian through the Romanesque periods. Not open to students who have credit in ART 409 or 598C.

410./510. Gothic Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Stylistic analyses in the historical content of the architecture, sculpture and stained glass of the great cathedrals of Europe. Not open to students who have credit in ART 410 or 598D.

411./511. History and Criticism of Photography (3)

Prerequisites: AH 115B, 115C, or consent of instructor. History of photography from its origins to contemporary developments in the twentieth century. Critical and philosophical approaches to the photographic medium. Not open to students who have credit in ART 411 or 511.

416./516. Greek Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. This survey will trace Greek Art from its first beginnings in the Aegean period and survey its development on through the late Hellenistic period. The key monuments of architecture, sculpture, painting, vase-painting, and the so-called minor arts will be discussed against the background of contemporary theories, criticism, and history. Of particular concern are the techniques and materials of the various arts. Not open to students who have credit in ART 416 or 598E.

417./517. Roman Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. This survey will begin with an overview of the arts of Italy before the Romans including both the indigenous art of the Italic peoples as

well as the better known art of the Etruscans. The survey of Roman Art itself will begin with the early Republic and end with the Age of Constantine. The major art forms of architecture, painting, sculpture and the so-called minor arts will be discussed. Contemporary criticism, theory, and history will be part of the sub-text of the course. Not open to students who have credit in ART 417 or 598L.

423./523. Early Renaissance Art in Italy (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Painting, sculpture, and architecture in Italy from the 13th through the 15th centuries, especially in Florence and Siena. The course examines stylistic and technical aspects of the works, along with the interaction of cultural, social, and religious developments with the visual arts. Special attention paid to issues such as the importance of patrons, the rise of mendicant orders, and the revival of classicism. Not open to students who have credit in ART 412 or 598F.

424./524. High Renaissance Art in Italy (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Painting, sculpture, and architecture in Italy from the 16th century especially in Florence, Venice, and Rome. Provides an historical, cultural, religious, and theoretical framework within which the meaning and function of the works can be better understood. Works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists) will receive special attention. Not open to students who have credit in ART 424 or 598G.

425./525. Northern Renaissance Painting (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Covers artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. The course provides a historical, cultural, and religious framework within which the style, meaning, and function of the works can be better understood. Special attention to issues such as iconography, and the changing role of the artist in society. Not open to students who have credit in ART 425 or 598H.

426./526. Baroque Art in Spain, the Netherlands, and England (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 426 or 598J.

427./527. Baroque Art in Italy, France, and Germany (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 427 or 598K.

436./536. Neo-Classicism to Romanticism, 1789-1850 (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 436 or 598M.

437./537. Impressionism to Post-Impressionism, 1850-1900 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Analysis of the development of Impressionism and Post-Impressionism in France from 1850 to 1900. Not open to students who have credit in ART 437 or 598N.

438./538. Twentieth-Century Art to 1945 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Examination of Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism. Not open to students who have credit in ART 438 or 598P.

439./539. Twentieth-Century Art from 1945 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Examination of Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art. Not open to students who have credit in ART 439 or 598Q.

440. Art and Society (3)

This course will consider the nature of art in Western culture from several disciplinary perspectives including art theory, social and political theory, history, philosophy and economics. It seeks to demonstrate that art is a construct based on human intellect and belief. Not open to students who have credit in ART 440.

455./555. Traditional Art of Africa: A Thematic Approach (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 455 or 598R.

456./556. American Indian Art: Western Perspectives (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Exploration from a Western perspective of the historically various and changing frames of reference surrounding perception, interpretation, and consideration of Native American art through focus on selected traditions. Not open to students who have credit in ART 456 or 598S.

457./557. Pre-Columbian Mexican Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. A survey from the Olmec to the Aztec of the art and architecture of Mexico and adjacent areas prior to the Spanish conquest. Not open to students who have credit in ART 457 or 598T.

465./565. Ancient Art of the Near East (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Near Eastern, Egyptian and Aegean art. Not open to students who have credit in ART 465 or 598U.

466./566. Buddhist Art of India and S.E. Asia (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The formation and development of Buddhist art in India and its subsequent metamorphoses in Cambodia, Thailand and Indonesia will be examined. Not open to students who have credit in ART 466 or 598V.

467./567. Hindu and Islamic Art of India (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The 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 to students with credit in ART 467 or 598W.

468./568. Early Chinese Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The formation and development of Chinese art from the third millennium to the 10th century A.D. Not open to students who have credit in ART 468 or 598X.

469./569. Later Chinese Art (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 469 or 598Y.

470A./570A.. Japanese Buddhist Art to 1500 (3)

Prerequisite: One of the following: AH 113A, 113B, 115A, 115B, 115C, A/ST 393, 451, or instructor's consent. 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 to students who have taken AH 470.

470B./570B. Japanese Art 1500-1868 (3)

Prerequisite: AH 113A, 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH 470.

471A./571A. Modern Japanese Graphic Art (3)

Prerequisite: One of the following: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH 471.

471B./571B. Modern Japanese Plastic Art (3)

Prerequisite: One of the following: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH 471.

495. Independent Study In Art History (1-6)

This course is used for 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, each student enrolled in this course must have an agreement, or "contract" on file in the department office. The agreement is to be made between the student and the instructor at the beginning of the course, and must include: 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. Course may be repeated to a maximum of 6 units.

496. Special Studies in Art History (3)

Prerequisite: AH 307 or consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in art history. May be repeated for a maximum of 9 units. Not open to students who have credit in ART 496.

497./597. Seminar in Art History (3)

Prerequisite: AH 307 or consent of instructor. Directed individual research and group discussion concerning a topic in art history. Limited to six units in one semester; may be repeated for a maximum of 9 units. Not open to students who have credit in ART 497 or 611 beyond combined maximum units.

498. Special Topics in Art History (3)

Prerequisite: AH 307 or consent of instructor. Description: This course is used for Variable Topic courses – courses that would be given on a on-time basis, either by lecturers who might be offering a course that is not part of the usual curriculum, or by permanent faculty who might wish to try out a new course before it appears in the catalog. Such a course must be approved by the head of the Art History program in conjunction with the Art Department chair. Variable courses from selected areas of Art History. Course content may vary each semester. Topics will be announced in the *Schedule of Classes*.

Graduate Courses

All graduate-level courses must be taken as traditional grading only.

501./401. American Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. A survey of American art from 1760 to 1945. Emphasis will be given to painting from Colonial portraiture to 20th century Abstract Expressionism. Not open to students who have credit in ART 401 or 598A.

508./408. Early Christian and Byzantine Art (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 408 or 598B.

509./409. Romanesque Art (3)

Prerequisites: AH 115A, 115B, or consent of instructor. Arts of Northern Europe from Merovingian through the Romanesque periods. Not open to students who have credit in ART 409 or 598C.

510./410. Gothic Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Stylistic analyses in the historical content of the architecture, sculpture and stained glass of the great cathedrals of Europe. Not open to students who have credit in ART 410 or 598D.

511./411. History and Criticism of Photography (3)

Prerequisites: AH 115B, 115C, or consent of instructor. History of photography from its origins to contemporary developments in the twentieth century. Critical and philosophical approaches to the photographic medium. Not open to students who have credit in ART 411 or 511.

516./416. Greek Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. This survey will trace Greek Art from its first beginnings in the Aegean period and survey its development on through the late Hellenistic period. The key monuments of architecture, sculpture, painting, vase-painting, and the so-called minor arts will be discussed against the background of contemporary theories, criticism, and history. Of particular concern are the techniques and materials of the various arts. Not open to students who have credit in ART 416 or 598E.

517./417. Roman Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. This survey will begin with an overview of the arts of Italy before the Romans including both the indigenous art of the Italic peoples as well as the better known art of the Etruscans. The survey of Roman Art itself will begin with the early Republic and end with the Age of Constantine. The major art forms of architecture, painting, sculpture and the so-called minor arts will be discussed. Contemporary criticism, theory, and history will be part of the sub-text of the course. Not open to students who have credit in ART 417 or 598L.

523./423. Early Renaissance Art in Italy (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Painting, sculpture, and architecture in Italy from the 13th through the 15th centuries, especially in Florence and Siena. The course examines stylistic and technical aspects of the works, along with the interaction of cultural, social, and religious developments with the visual arts. Special attention paid to issues such as the importance of patrons, the rise of mendicant orders, and the revival of classicism. Not open to students who have credit in ART 412 or 598F.

524./424. High Renaissance Art in Italy (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Painting, sculpture, and architecture in Italy from the 16th century especially in Florence, Venice, and Rome. Provides an historical, cultural, religious, and theoretical framework within which the meaning and function of the works can be better understood. Works by a handful of major artists (Leonardo da Vinci, Michelangelo, Raphael, Titian, and the Mannerists) will receive special attention. Not open to students who have credit in ART 424 or 598G.

525./425. Northern Renaissance Painting (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Covers artistic developments in Northern Europe, particularly Flanders, France, and Germany, from the 14th century through 16th century. The course provides an historical, cultural, and religious framework within which the style, meaning, and function of the works can be better understood. Special attention to issues such as iconography, and the changing role of the artist in society. Not open to students who have credit in ART 425 or 598H.

526./426. Baroque Art in Spain, the Netherlands, and England (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 426 or 598J.

527./427. Baroque Art in Italy, France, and Germany (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 427 or 598K.

536./436. Neo-Classicism to Romanticism, 1789-1850 (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 436 or 598M.

537./437. Impressionism to Post-Impressionism, 1850-1900 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Analysis of the development of Impressionism and Post-Impressionism in France from 1850 to 1900. Not open to students who have credit in ART 437 or 598N.

538./438. Twentieth Century Art to 1945 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Examination of Abstraction, Non-Objective art, Expressionism, Dada, and Surrealism. Not open to students who have credit in ART 438 or 598P.

539./439. Twentieth Century Art from 1945 (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Examination of Pop Art, Happenings, Minimal Art, Art and Technology, Environmental, Concept, Performance and Video Art. Not open to students who have credit in ART 439 or 598Q.

555./455. Traditional Art of Africa: A Thematic Approach (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 455 or 598R.

556./456. American Indian Art: Western Perspectives (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Exploration from a Western perspective of the historically various and changing frames of reference surrounding perception, interpretation, and consideration of Native American art through focus on selected traditions. Not open to students who have credit in ART 456 or 598S.

557./457. Pre-Columbian Mexican Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. A survey from the Olmec to the Aztec of the art and architecture of Mexico and adjacent areas prior to the Spanish conquest. Not open to students who have credit in ART 457 or 598T.

565./465. Ancient Art of the Near East (3)

Prerequisites: AH 115B, 115C, or consent of instructor. Prehistoric, Near Eastern, Egyptian and Aegean art. Not open to students who have credit in ART 465 or 598U.

566./466. Buddhist Art of India and S.E. Asia (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The formation and development of Buddhist art in India and its subsequent metamorphoses in Cambodia, Thailand and Indonesia will be examined. Not open to students who have credit in ART 466 or 598V.

567./467. Hindu and Islamic Art of India (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The 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 to students with credit in ART 467 or 598W.

568./468. Early Chinese Art (3)

Prerequisites: AH 115B, 115C, or consent of instructor. The formation and development of Chinese art from the third millennium to the 10th century A.D. Not open to students who have credit in ART 468 or 598X.

569./469. Later Chinese Art (3)

Prerequisites: AH 115B, 115C, 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 to students who have credit in ART 469 or 598Y.

570A./470A. Japanese Buddhist Art to 1500 (3)

Prerequisite: One of the following: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or instructor's consent. 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 to students who have taken AH470.

570B./470B. Japanese Art 1500-1868 (3)

Prerequisite: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH470.

571A/471A. Modern Japanese Graphic Art (3)

Prerequisite: One of the following: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH471.

571B./471B. Modern Japanese Plastic Art (3)

Prerequisite: One of the following: AH 113A, AH 113B, 115A, 115B, 115C, A/ST 393, 451, or consent of the 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 to students who have taken AH471.

595. Independent Study In Art History (1-3)

This course is used for 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, each student enrolled in this course must have an agreement, or "contract" on file in the department office. The agreement is to be made between the student and the instructor at the beginning of the course, and must include: 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. Course may be repeated to a maximum of 3 units.

596. Special Problems 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. May be repeated for a maximum of 9 units.

597./497. Seminar in Art History (3)

Prerequisite: AH 307 or consent of instructor. Directed individual research and group discussion concerning a topic in art history. Limited to six units in one semester; may be repeated for a maximum of 9 units. Not open to students who have credit in ART 497 or 611 beyond combined maximum units

598. Special Topics in Art History (3)

Prerequisite: AH 307 or consent of instructor. Description: This course is used for Variable Topic courses – courses that would be given on a on-time basis, either by lecturers who might be offering a course that is not part of the usual curriculum, or by permanent faculty who might wish to try out a new course before it appears in the catalog. Such a course must be approved by the head of the Art History program in conjunction with the Art Department chair. Variable courses from selected areas of Art History. Course content may vary each semester. Topics will be announced in the *Schedule of Classes*.

693. Graduate Critique Seminar (3)

Prerequisite: Graduate standing or permission of the instructor. Development of critical skills as related to studio work. Discussion of theory and studio practice as it pertains to an individual's work. Recommended for graduate studio majors. Course may be repeated to a maximum of 9 units.

698. Thesis (1-6)

Prerequisite: Advancement to Candidacy and an approved Thesis Statement Execution and completion of an approved thesis. Open only to Art history students. Required of all candidates for the MA in Art, specialization in art History.



COLLEGE OF THE ARTS

Dean

Donald J. Para

Associate Dean

Holly Harbinger

Administrative Services Manager

Patti Meylor

Director of Special Projects

Rosalinda O'Brien

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Bethany Price

Director of Development

Susan Lauer

Office Manager

Dina Butler

Director University Art Museum

Constance Glenn

Executive Director of the Carpenter Performing Arts Center

Peter Lesnik

Director of the California Institute for the Preservation of Jazz

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The College of the Arts at California State University, Long Beach is one of the largest and most respected state supported arts schools in the country. With nearly 4,000 students studying in six departments, the College of the Arts (COTA) offers nationally recognized, fully accredited degree programs in Art, Dance, Design, Film and Electronic Arts, Music, and Theatre Arts. The College of the Arts is located in close proximity to the Los Angeles/Hollywood area and has many ties to the arts and entertainment industries. The curriculum focuses on professional development in the applied or performance fields of study. The goal of most students is professional employment as artists, designers, or performers in their chosen disciplines.

The learning opportunities within the College of the Arts reflect its commitment to the arts in all forms. For performers, artists, and scholars, the College of the Arts provides an environment designed for individual achievement. It offers programs to meet the needs of students who wish to:

- Pursue professional careers in art, dance, design, music, electronic media, film, or theatre arts
- Teach one or more of the arts
- Explore the creative uses of technology in the arts
- Follow a degree program that provides a broad education with a focus in the arts
- Learn about the history and nature of the arts in Western and non-Western cultures
- Develop appreciation of art forms and their lasting value to the quality of life

The College of the Arts offers a comprehensive variety of professional degree programs, meeting the highest standards of excellence, including the Bachelor of Fine Arts Degree in Art, Dance, and Design; the Bachelor of Science Degree in Industrial Design; the Bachelor of Music Degree; the Master of Fine Arts Degree in Art, Dance, Design, and Theatre Arts; and the Master of Music Degree.

Students wishing to earn a degree or certification in arts education may choose from the Bachelor of Arts Degree in Art Education or the Bachelor of Music Degree in Instrumental or Choral/Vocal Music. Single Subject Certification for the state of California is offered jointly between the College of the Arts and the College of Education. Finally, the College offers Masters of Arts Degrees in Art Education, Dance Education, and Music Education.

For those students who wish to obtain a liberal education with the arts as a focus, the departments of Art, Dance, Music, Film and Electronic Arts, and Theatre Arts offer appropriate Bachelor of Arts degree options. The Departments of Art, Design, Music, and Theatre Arts also offer the Master of Arts Degree. Other special programs include certificates in Bio-medical Illustration and Museum Studies.

Departments in the College are accredited by the major accrediting agency for their discipline: The National Association of Schools of Art and Design, The National Association of Schools of Dance, The National Association of Schools of

Music, and the National Association of Schools of Theatre. The faculty of the College of the Arts are themselves accomplished artists, performers, and scholars who bring significant expertise and professional experience to their teaching assignments.

The College of the Arts is also home to the University Art Museum (a nationally accredited art museum which presents exhibitions of professional stature focusing primarily on contemporary artists) as well as the California Repertory Company and the California Institute for the Preservation of Jazz. California Repertory Company, the Theatre Arts Department's graduate and professional theatre program, is the only company of its kind in the CSU system.

Major performance and exhibition facilities include the University Art Museum, the Art Department Galleries, the University Theatre, The Studio Theatre, the Edison Theatre, the Gerald R. Daniel Recital Hall, the Martha Knoebel Dance Theatre, and the Richard and Karen Carpenter Performing Arts Center. The extensive performance calendar generated by the wide-ranging curricula includes over 300 student and faculty concerts, film showcases, theatre productions, dance performances, and art and design exhibitions. The College of the Arts is a highly visible part of the campus community, as well as an important cultural and economic resource in the Long Beach/Los Angeles and Orange County areas.

University Art Museum

The University Art Museum, which recently celebrated its 25th anniversary, is ranked among the top 10% of the nation's 7,000-plus museums. The only accredited museum in the CSU system, it has achieved worldwide acclaim for its exhibitions, publications, and collections of contemporary artworks. In 1999, the museum was the recipient of the Hampton Collection, a \$3.2 million gift featuring 85 stunning mid-century abstractions by 42 artists.

The Richard and Karen Carpenter Performing Arts Center

The Carpenter Performing Arts Center opened in 1994. Designed by local architect Donald Gibbs, the elegant performance hall has enriched the surrounding community with hundreds of music, dance, film, and theatre events. The Carpenter Center, which seats 1,065 patrons, can accommodate large or small performing ensembles, film screenings, concerts, conferences, and other special events.

The California Institute for the Preservation of Jazz

The Jazz Institute is a state agency housed in the College of the Arts. The Institute's mission is to provide jazz education, outreach, performance, and preservation services for the western region of the United States. The Jazz Institute, housed in the University Library, has acquired more than 50,000 records, 7,500 compact discs, 5,000 tapes, and thousands of books, periodicals, photos and memorabilia, as well as a collection of broadcast transcriptions and hundreds of hours of filmed and videotaped performances.

Courses (COTA)

Upper Division

450. Arts of the 20th Century (3)

Course involves all six departments in the College of the Arts and is designed to familiarize COTA students with art forms outside their major. Students will examine the role and function of the arts in society in terms of both philosophy and ideology. Letter grade only (A-F).

ASIAN AND ASIAN AMERICAN STUDIES

College of Liberal Arts

Department Chair

John N. Tsuchida

Vice Chair

Hsin-sheng C. Kao

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Faculty Offices FO3-340

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Centers

Center for Asian Pacific American Studies

Center for Southeast Asian Studies

Web Site

<http://www.csulb.edu/~c/la/asian-studies>

Faculty

Professors

Arnold P. Kaminsky

Hsin-sheng C. Kao

San-pao Li (Emeritus, 2001)

Yoko Pusavat (Emeritus, 2002)

John N. Tsuchida

Associate Professors

Hiroko Kataoka

Akira Miyazaki

Assistant Professors

Masako O. Douglas

Barbara W. Kim

Linda N. España-Maram

Feng-Ying Ming

Dean S. Toji

Tianwei Xie

Graduate Advisor

Hsin-sheng C. Kao

Undergraduate Advisor

Hsin-sheng C. Kao

Associate Faculty

Xiaolan Bao (History), Jeffrey Broughton (Religious Studies), Kendall Brown (Art History), Pamela Bunte (Anthropology), Sudershan Chawla (Political Science), Chi-Ah Chun (Psychology), Molly Debysingh (Geography), Vincent Del Casino (Geography), Frank Gossette (Geography), Lisa Grobar (Economics), Sarath Gunatillake (Health Science), Maria Heim (Religious Studies), Jack W. Hou (Economics), Tomotaka Ishimine (Economics), Xiaoping Liang (Linguistics), Paulino Lim (English), Alain Marsot (Political Science), William Mulligan (Journalism), Alan T. Nishio (Public Policy), Eve Oishi (Women's Studies), Eugene Ruyle (Anthropology), George Scott (Anthropology), Sharon Sievers (History), Paul Tang (Philosophy), Teresa Wright (Political Science), and Teri Yamada (Comparative Literature and Classics).

Administrative Support Coordinator

Vacant

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for referral to one of the faculty advisors. The Department of Asian and Asian American Studies (AAAS), through its multiple offerings and those in related departments, fosters multi-ethnic and cross-cultural understanding within a global, multi-disciplinary perspective; facilitates a greater understanding of Asians in America to enhance multi-cultural education and appreciation of ethnic diversity in California and the United States; and pursues an active language education program to promote cross-cultural awareness and intercultural understanding.

In the broad context, the department's major responsibilities revolve around international/area studies, ethnic studies and language studies. Asian Studies enables students to explore Asian civilizations from an interdisciplinary perspective; Asian American Studies investigate the nature of Asian immigration and Asian American experiences in the United States; Chinese Studies provides students with cultural, literary, and linguistic preparations; and Japanese language studies provide linguistic and cultural training in Japanese language and language related areas. Asian language courses are also appropriate electives to support several of the majors offered by the University.

Students in all programs are encouraged to integrate the study of Asian cultures and societies across the Pacific with that of Asian American communities in the United States and to support the study of culture and society with appropriate language training.

The department curricula provide students with knowledge and training necessary for (1) various occupations and careers including teaching, school administration, social work, public service, urban planning, communications and the media, foreign business and trade, (2) professional work in the Asian American community, (3) exploring an educational dimension by emphasizing and focusing on ethnic minorities.

Through courses of its own and those of cooperating departments, the Department of Asian and Asian American Studies offers the B.A. and M.A. in Asian Studies; the B.A. in Chinese Studies; a Single Subject Teaching Credential in Japanese, the B.A. in Japanese, a Minor in Asian American Studies, a Certificate in Asian Studies, a Certificate in Asian American Studies, and a Certificate in Japanese. The department also offers a Concentration in Japanese and a Concentration in Asian American Studies under Track II of the Bachelor of Arts in Liberal Studies. (See University Programs in this *Catalog*.) Additional information and advice relative to the programs are available through the department office, FO3-340.

Bachelor of Arts in Asian Studies (code A/STBA01) (120 units)

Students choosing an Asian Studies major select one of two tracks for the degree. The student may choose an area of study, concentrating on one or more specific Asian societies, such as China, Japan, India, or Southeast Asia. Or, the student may choose to focus on Asian American Studies and combine the study of Asian Americans as ethnic minorities with supporting investigation of the countries of their historical origin.

Requirements

1. ASAM 200 or 220;
2. A/ST 300I, 301I and 492;
3. Three semesters (or the equivalent) of a single Asian language, chosen from courses in Chinese, Japanese, or an Asian language approved by the undergraduate advisor.

Upper Division: A minimum of 21 units; students should select one of the following two emphases:

I. Area Studies Track

21 units of upper division work, including A/ST 492 (Proseminar in Asian Studies), and additional courses selected from the list of approved electives with the following provisions: (1) no more than 9 units shall be counted in a single discipline such as art or history, (2) no more than 9 units shall be credited that concentrate upon any one area of Asia, chosen from among the following: China, India, Japan, or Southeast Asia. No more than 6 units of courses on the Americas can be applied toward this requirement (N.B. In the case of seminar, thematic, or variable topic courses, the assignment of a disciplinary and/or geographic category will be made by the undergraduate advisor in consultation with the appropriate faculty member).

II. Asian American Studies Track:

21 units of upper division work, selected from the list of approved electives with the following provisions: (1) A/ST 492 (Proseminar in Asian Studies [3 units]); (2) 12 units of upper division Asian American Studies including ASAM 310 and 345; (3) the remaining upper division units focusing on one geographical area of Asia, chosen from among the following: China, India, Japan, or Southeast Asia.

Minor in Asian American Studies (code A/STUM01)

Requirements

The Minor in Asian American Studies is available to all majors.

A minimum of 22 units which must include: (a) ASAM 200 or 319, 220, 260 or 310, and 345, and (b) nine units selected from among the following: ASAM 330, 331, 332, 333, 334, 335I, 340, 346, 347, 352, 360, 370, 381, 490, 495, 499.

Certificate in Asian Studies (code A/STCT01)

A student may earn a Certificate in Asian Studies with a concentration on China, Japan, India, or Southeast Asia. Where applicable, courses used to meet the certificate requirements also may be used to satisfy the General Education requirement and the major and teaching minor requirements of the cooperating departments.

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 an approved Asian language which is to be selected in accordance with the area of concentration;
3. A/ST 300I, 301I and 12 units of upper division work divided among two or more disciplines. These are to be selected in accordance with the area of concentration and in consultation with the student's advisor. No more than 6 units in any one discipline shall apply towards the Certificate.

Certificate in Asian American Studies (code A/STCT02)

Students pursuing any approved degree or credential program of the University may at the same time earn a Certificate in Asian American Studies. Courses taken to meet the requirements may simultaneously 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 department chair.

Requirements

1. A bachelor's degree with a major other than Asian Studies. May be completed concurrently;
2. A minimum of 30 units distributed as follows:
 - a. ASAM 200 or 319, 220, 260 or 310, 345, 370 (required), plus;
 - b. additional courses selected from: ASAM 330, 331, 332, 333, 334, 335I, 340, 346, 347, 352, 360, 380, 381, 490, 495, 499.

(See approved list of courses below.)

Interested students should apply to the department office.

Bachelor of Arts in Chinese Studies (code A/STBA02) (120 units)

The Bachelor of Arts program in Chinese Studies at CSULB is designed to provide students with linguistic and cultural preparation, supported by international perspectives and understanding of humanities for personal, socio-political, and literary-intellectual development, as well as for economic self-sufficiency in the ever-intertwining world of a global economy. The degree program is a major intended to educate and produce graduates who will have communicative proficiency, critical thinking skills, socio-cultural understanding, and literary sensibility for intercultural communication. The degree program will also provide students with an opportunity and preparation to pursue a career involving the Pacific Rim nations, and to go on to graduate and professional programs in fields such as Art, International Affairs, Business Administration, History, Literature, Law, Journalism, Public Administration, or Education.

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 38 units is required, including at least 15 units earned in residence at CSULB. CHIN 101 and 102 are prerequisite to the major and may be satisfied by appropriate high school preparation or by examination. Required courses include a 3-unit lower division course, 20 units of core courses, and 15 units of electives from the following two groups: 1. Chinese and Chinese language-, literature-, or culture-related courses (9 units); and 2. China-related courses (9 units).

Lower Division Required Courses (11 units):

- A. 3 units required course: CHIN 250 or CHIN 260
- B. 8 units core courses: CHIN 201, 202

Upper Division Required Courses (31 units)

- A. 12 units core courses: CHIN 301, 370, 451, 492.
- B. 15 units electives selected from the following two groups:
 1. 9 units selected from CHIN 302, 321, 350, 360, 380, 382A, 382B, 390, 410, 430A, 430B, 430C, 488, 490, 499; A/ST 490A, 490B.
 2. 6 Units selected from ANTH 332, AH 468, 469, ASAM 331, A/ST 300I, 301I, 320, 406A, 495I, ECON 365, 370, HIST 382A, 382B, 406A, 488, JOUR 312I, PHIL 306, POSC 362, 455, R/ST 341I, 343, W/ST 406A.

Bachelor of Arts in Japanese (code A/STBA03) (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. The degree is intended to produce graduates who will have the communicative proficiency, critical thinking skills, and a sociocultural understanding for effective intercultural communication. The program will provide students with an opportunity and preparation to pursue a career involving the Pacific Rim nations, to go on to post-baccalaureate programs in the fields such as international affairs, business, law, journalism, public administration, or education, and/or to obtain a single subject teaching credential in Japanese.

The program is different from a traditional literature-oriented language program. 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. The program will be supported by a variety of discipline-specific courses as well as interdisciplinary courses in Anthropology, Art, Asian Studies, Asian American Studies, Business, Comparative Literature, Economics, Education, Geography, History, International Studies, Linguistics, Philosophy, Political Sciences, Religious Studies, Speech Communication, and other programs offering Japan-related topics.

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.

Students are placed in Japanese courses according to a placement test administered by the department. In general, one year of high school Japanese taken in the United States is equated with one semester of CSULB work. Thus, students with one, two, three, and four years of high school work will most often enroll in JAPN 102, 201, 202, and 301 respectively.

Students with background in Japanese gained through primary or secondary school work taken in a country where Japanese is spoken must consult with faculty to determine proper placement level. Those who have gained substantial knowledge of Japanese either through secondary school work or through college-level language courses may not repeat those courses for credit.

Students are encouraged to study in Japan, either through the CSU Study Abroad Program or independently, after completing at least two years of study (or its equivalent) of Japanese at CSULB.

Residence Requirement for the Majors

At least five 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 44 units is required, including at least 15 units earned in residence at CSULB. JAPN 101 and 102 are prerequisite to the major and may be satisfied by appropriate high school preparation or by examination. Required courses include 23 units core courses and 21 units electives from the following three areas; 1. language and language-related courses (12 units), 2. Japanese civilization courses (6 units), and 3. Japan-related or intercultural communication courses (3 units).

Lower Division Required Courses:

8 units Core Courses: JAPN 201, 202

Upper Division Required Courses (36 units)

1. Core Courses (23 units): JAPN 301, 302, 311, 312, 451 (in Japanese);

2. Electives (21 units):

A. Language and Language Related Courses - 12 units selected from: JAPN 350, 370, 421, 422, 461, 462, 471, 481, 490, 492, 497;

B. Japanese Civilization (taught in English): 6 units selected from: ANTH 335, A/ST 393I, AH 470A/B, HIST 383A, 383B, 384, 405, 406B, 407I, 409, POSC 363, R/ST 344;

C. Japan-Related or Intercultural Communication Courses - 3 units selected from: ANTH 307I, 412I, 413, 490*, ASAM 330, 345, A/ST 300I, 301I, 310, 320, 406A, 490*, 492, 495I, C/LT 403, COMM 309, 330, ECON 370, 372, EDSS 450F, GEOG 307I, H SC 420I, HIST 382B, 406A, 478, 495*, I/ST 317I, 318I, 319I, 478, JOUR 312, PHIL 306, POSC 362, 363, 371, 378, 469*, 485*, 489, 497*, PSY 439, R/ST 341I, SOC 350, W/ST 401I, 406A.

*Special topics courses in departments which regularly offer topical courses pertinent to the program.

Certificate in Japanese (code A/STCT03)

The Certificate Program in Japanese offers students an opportunity to develop spoken and written competency in modern Japanese, and to acquire a broad introduction to various aspects of traditional and modern Japan.

The program is designed for students who intend to pursue a career in the private or public sectors, for which knowledge of Japan and the command of the language is useful or necessary, and also for students who intend to pursue a graduate program in which such knowledge and competency are required.

Requirements

1. A bachelor's degree (may be earned concurrently with the certificate);
2. 15 units of upper division level Japanese language courses;

- 12 units of Japan-related upper division work from at least two disciplines. These units must be selected with the approval by a member of the advisory committee.

Approved Courses

For Major in Asian Studies, Minor in Asian American Studies, Certificate in Asian Studies and Certificate in Asian American Studies:

A/ST 190, 290, 299, 300I, 301I, 310, 320, 393I, 406AB, 441, 442, 443, 444, 490, 492, 495I, 499; ANTH 332, 333, 335, *416, *417, *419, *490; AH 113A-B, 330I, 466, 467, 468, 469, 470A/B, 471, *497, 498; ASAM 200, 220, 260, 290, 299, 310, 319, 330, 331, 332, 333, 334, 335I, 340, 345, 346, 347, 352, 360, 370, 380, 381, 490, 495, 499; C/LT 334, 336, 350, 403, 415I, *448, *499; CHIN 101, 102, 201, 202, 250, 301, 302, 321, 350, 360, 370, 380, 390, 410, 430ABC, 451, 490, 499; ECON 365, 370, 472, *490; ENGL 375; GEOG 120, 314I, *326, *494, *497; HIST 381, 382A-B, 383A-B, 384, 385, 386, 401I, 405, 406AB, 407I, 409, 488, *495, *498; I/ST *317I, *318I, *319I; JAPN 101, 102, 201, 202, 311, 312, 350, 370, 421, 422, 451, 461, 462, 471, 481, 490, 492, 497; PHIL 306, 307, *499; POSC 362, 363, 364, 366, 455, 469*, 485*, *489, *497, *499; R/ST 103, 331I, 341I, 343, 344, 351, 352, 353I, *490, *499; W/ST 318I, 319, 381, 401I, 406AB, *490, *499.

(*) on an approved Asia-related topic.

Single Subject 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.

Core Requirements

24 upper division units selected from the following four areas:

1. Language: JAPN 301, 302, 311, 312;
2. Linguistics: JAPN 461;
3. Literature: JAPN 471 plus 421 or JAPN 370;
4. Culture: JAPN 451.

Electives: 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, 422;

Linguistics: JAPN 462, 481;

Literature: JAPN 370;

Culture: JAPN 350; 492;

Variable Subjects: JAPN 490; 497.

Master of Arts in Asian Studies (code A/STMA01)

The master of arts degree in Asian Studies is an interdisciplinary degree offered by the Asian Studies faculty of its co-operating departments. It is especially aimed at those intending to go into teaching, foreign service, or foreign trade. Students applying for the M.A. Program in Asian Studies must apply for admission to the University and simultaneously provide official transcripts and two letters of recommendation to the graduate advisor of the department.

Prerequisites

1. A Bachelor's degree with a major in Asian Studies; or
2. A Certificate in Asian Studies, awarded at CSULB, or its equivalent as evaluated by the graduate advisor of the department of Asian and Asian American Studies. Equivalency will, normally, be granted for work in Asia-related studies at CSULB and/or at other academic institutions, including a minimum of 18 units in no more than four disciplines with a minimum of six units in each of two disciplines of concentration plus two semesters of an approved Asian language. Only courses with a substantive Asia-related content are acceptable; or
3. A bachelor's degree in one of the fields in social science, humanities, or fine arts with 24 units of upper division Asia-related courses. These courses must be comparable to those required of a major in Asian Studies at this University. Deficiencies will be determined by the graduate advisor after consultation with the student and after study of transcript records. Students whose undergraduate prerequisites are inadequate will be required to fulfill these deficiencies before advancement to candidacy and will receive unclassified graduate status until all deficiencies are removed.

Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy;
2. Completion of 6 or more of the required units (not including language) with a minimum 3.0 overall GPA;

3. Approval of proposed program of study;
4. Satisfactory completion of the Writing Proficiency Examination.

Requirements

1. A minimum of 30 units of approved upper division and graduate courses including A/ST 592 and A/ST 610. At least 18 units must be in the 500-600 series composed of units earned at this University in graduate courses, graduate seminars, Directed Studies/Research or Thesis. All seminars and independent study courses may be repeated for a total of six (6) units, provided the topic is different. Directed Studies, Readings and Research, in any combination, may not exceed a total of six (6) units: A/ST 698 (thesis) must be taken for a minimum of four and a maximum of six units for those taking the thesis option.
2. A minimum of three upper division units in each of two disciplines of concentration must be taken preparatory to seminar work. Students should take at least six units of 500/600 level work in each of the two disciplines or concentrations;
(N.B. Determination of the disciplinary status of any Asian Studies or any other courses taken at CSULB or other academic institutions shall be at the discretion of the Graduate Advisor in consultation with faculty, review of syllabi and reading lists, assessment of transcripts, etc.)
3. Comprehensive written examination in each of the two disciplines of concentration or a thesis. Students must have received permission of the Graduate Advisor, faculty advisor and prospective committee members before being allowed to file for the thesis option. Once selected, a student may not change his/her option.
4. Six units (beyond the B.A. level) in Chinese or Japanese or an Asian language approved by the Graduate Advisor. Waiver of this requirement, either by transfer of credits from another institution or by assessment of proficiency by resident faculty, is at the discretion of the graduate advisor of the department of Asian and Asian American Studies.

Upper Division Courses Acceptable:

A/ST 320, 406AB, 490, 492, 499; ANTH 332, 333, 335, *416, *417, *419, *490; AH 466, 467, 468, 469, 470A/B, 471A/B, *497, *498; C/LT 403, *448, *499; CHIN 390, 430ABC, 451, 490, 492, 499; ECON *472; GEOG 326, *494, *497; HIST 384, 385, 386, 405, 406A, 406B, 409, 488, *495, *498; JAPN 350, 451, 471, 490, 497; *PHIL 499; POSC 362, 363, 364, 366, 455, 469*, 485*, *489, *497, *499; R/ST *490, *499; *W/ST 406, 406A, 490, *499
* course must be an approved Asia-related topic.

Asian Studies (A/ST)

Lower Division

190. The Tao Primer of Basic Reasoning (3)

Prerequisites/Corequisite: ENGL 100 or its equivalent. A course about clear, critical and creative thinking, exploring both Western and Eastern paradigms about the nature, methods and principles of reasoning, as well as their common failings, limitations and applications in both formal and informal settings. Special emphasis will be placed on the ways in which Taoist principles complement and enhance traditional Western concepts.

290. Special Topics in Asian Studies (1-3)

Prerequisite: Consent of instructor. Topics of special interest in Asian Studies selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

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 for a maximum of six 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.

300I. Traditional Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses, and upper-division standing. An interdisciplinary examination of the traditional civilizations of Asia. This team-taught course focuses on two Asian civilizations, normally China and India, and may periodically focus on Japan. The course will examine topics related to Asian cultures to illustrate the richness and diversity of Asia.

301I. Modern Asia (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Emphasis on the development of Asia since the 18th century and its role in the modern world, with some attention to the experience of Asians in the U.S. Continuity and change, reform and revolution in culture, politics and the economy will be included.

310. United States and Asia (3)

Designed to answer the basic question: How is Asia important to the United States and vice versa? Focusing on the post-1945 period and addressing the question of dependence vs. interdependence, four main areas will be examined: (1) key religious, social and political patterns in Asia; (2) cross-cultural images of Asia and America; (3) Asian-U.S. global economic relations; (4) Asian-U.S. strategic and political relationships in both the regional and global context.

320. Asia in Fiction and Film (3)

This course focuses on Asian-Western interactions and particularly on Asian-Western perspectives of this interaction as manifested in film and works of fiction. The focus will be on China, Japan and/or India; consideration will also be given to the Asian experience in America.

393I. Japan's Heritage (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Cultural heritage of Japanese civilization emphasizing history, philosophy, religion, literature and fine arts from prehistory to the present. Letter grade only (A-F).

406A. Asian Women: East and Northeast Asia (3)

Prerequisite: Upper division status. In this course, we will explore the diverse experiences of women in China, Japan, and Korea. By studying different kinds of sources, including memoirs, biographies, literature, film, as well as scholarly works by or about North and Northeast Asian women, we will examine how gender was historically constructed and discuss about women's various forms of resistance in this area. This course will proceed both chronologically and thematically. Major issues to be addressed include the discrepancy between gender norms and reality, women's agency in social change, women and the state, and the complex relationship between feminism and nationalism. Asian American women's experiences will also be discussed at relevant places throughout the course. At the end of the course, students are encouraged to critically reflect on some theoretical issues that have been discussed in the scholarship on women's history in general and North and Northeast Asian women's history in particular. Same courses as HIST 406A and W/ST 406A.

406B. Asian Women: South and Southeast Asia (3)

An introductory course on the experiences of women in two of the most ethnically, culturally, and politically diverse regions of the world: South and Southeast Asia. This course explores the diversity of women's experience in these two regions during the colonial and post-colonial periods. Using different kinds of sources, including memoirs, biography, literature, and film, as well as monographs by or about South and Southeast Asian women, we will examine how gender is historically constructed in the two regions, and how women have exercised agency throughout history. This course will proceed both chronologically and thematically. Major issues to be discussed include women's agency in social change; gender as a contentious site of political discourse; the impact of colonization on women, and women's various forms of resistance. Same courses as HIST 406B and W/ST 406B. Letter grade only (A-F).

441. Khmer Literacy for Khmer Speakers: Introduction (3)

Prerequisite: Fluent oral skills in Khmer. First of a 4 course sequence. Introduction to Khmer writing system. Practice in reading, decipherment, vowels, consonants and syllable combinations. Oral practice, honorifics, culturally appropriate interaction. Letter grade only (A-F). Same course as LING 441.

442. Khmer Literacy for Khmer Speakers: Intermediate A (3)

Prerequisite: A/ST 441 or consent of instructor. Second of a 4 course sequence. Continued practice in Khmer writing system. Vocabulary development, reading and writing long sentences and simple text. Appropriate social and educational discourse. Letter grade only (A-F). Same course as LING 442.

443. Khmer Literacy for Khmer Speakers: Intermediate B (3)

Prerequisite: A/ST 442 or consent of instructor. Third of a 4 course sequence. Contextual reading for comprehension, culture and grammatical knowledge. Development of oral skills, through discussion of content, role play and verbal critique. Letter grade only (A-F). Same course as LING 443.

444. Khmer Literacy for Khmer Speakers: Advanced (3)

Prerequisite: A/ST 443 or consent of instructor. Fourth of a 4 course sequence. Composition and written translation. Preparation for BCLAD tests 5 & 6: Culture and Language of Emphasis. Reading authentic texts. Letter grade only (A-F). Same course as LING 444.

*490. Special Topics in Asian Studies (1-3)

Topics of special interest in Asian Studies selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of six units.

A. Modern Chinese Literature

B. China in Transition

C. Modern Vietnam

D. Filipino Language, Literature and Culture

492./592. Proseminar in Asian Studies (3)

Prerequisites: Consent of the instructor. Introduction to research methods; intensive study of selected conceptual and theoretical issues in Asian or Asian American Studies. Area and discipline of emphasis will vary from year to year. May be repeated for a maximum of six units.

495I. China Heritage (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses; upper-division standing. Cultural heritage of China and its influence on other regions of Asia and the world will be 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, 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 for a maximum of six 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, 567, 568, 569, 570, 571, *596, *597; A/ST 543, 544, 551, 592, 610, 695, 697, 698; ANTH 516, 517, 519, 597, 697; ART 611; ASAM 595; C/LT 503, 522, 548, 550; ECON 572, 690; GEOG 650, 697; HIST 505, 509, 510(G), 682, 695, 697; JAPN 551, 581, 592, 695, 697; PHIL 697; POSC 590, 599, 600, 610, 670, 697; R/ST 646, *690, *697.

543. Religions of China (3)

Ancient Chinese religious thought; penetration of Indian Buddhism and Ch'an (Zen); popular religion and the religion of the scholar-official. Emphasis will be on original texts in translations. Not open to students with credit in R/ST 343.

544. Religions of Japan (3)

The transmission of continental civilization to Japan; Shinto, Buddhism and Tokugawa Neo-Confucianism; Genroku culture; and the New Religions. Emphasis on original texts in translations. Not open to students with credit in R/ST 344.

551. Hinduism (3)

Survey of ancient, classical and medieval Hinduism. Emphasis on analysis of Upanishads, Bhagavad Gita and the various paths of Yoga. Not open to students with credit in R/ST 351.

592./492. Proseminar in Asian Studies (3)

Prerequisites: Consent of the instructor. Introduction to research methods; intensive study of selected conceptual and theoretical problems in Asian or Asian American Studies. Area and discipline of emphasis will vary from year to year. May be repeated for a maximum of six units.

610. Seminar in Asian Studies (3)

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 for a maximum of six units.

695. Directed Readings (1-3)

Prerequisites: Consent of Graduate Advisor. Readings in Asian Studies on an individual basis.

697. Directed Research (1-3)

Prerequisites: Consent of Graduate Advisor. Research in Asian Studies on an individual basis.

698. Thesis (2-6)

Prerequisite: Consent of the Graduate Advisor. Planning, preparation, and completion of a thesis in Asian studies.

Asian American Studies (ASAM)

Lower Division

1. Language Skills (3)

Focuses on intensive development of grammatical skills and expository writing. Primarily for Asian American students. Credit/no credit only. Counts as part of student course load but does not carry graduation credit.

100. Language Skills (3)

Prerequisite: A recorded total score of 151 or above on the English Placement Test, or credit in ASAM 1 (or its equivalent) and consent of the instructor. Focuses on organizational methods and techniques for writing compositional and expository prose, advanced grammar, and some critical reading techniques for term papers. Primarily for Asian American students.

200. Asian American Inter-Ethnic Relations (3)

Prerequisites: Completion of GE Foundation requirements. Intercultural and inter-ethnic behavior and orientation of Asian Americans; emphasis on the nature of their relations and their patterns of interaction with other diverse groups as well as the majority culture. Not open to students with credit in AIS 319, ASAM 319, B/ST 319, CHLS 319, C/LA 319, and W/ST 319. Letter grade only (A-F).

215. U.S. Diversity and the Ethnic Experience (3)

Prerequisite: The course is open only to Integrated Teacher Education Program students. This course is a survey of four major ethnic groups (American Indians, African Americans, Latinos, and Asian Americans) in American society from the colonial era to the present. Special attention is given to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States. Same course as AIS 215, B/ST 215, CHLS 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

220. Asian American History (3)

Prerequisite: Completion of the 13-unit GE Foundation requirements. This course focuses on the social, economic, political, and cultural dimensions of Asian experiences within the context of U.S. history. It examines race, ethnicity, class, gender, sexual orientation, and the politics of representation within various Asian American communities and in the dominant U.S. society. The class will include explorations into the larger narratives of the Asian diasporas and the formation of local and global networks among Asian Americans.

221. Contemporary Issues in Asian America (3)

Prerequisites: Completion of the GE Foundation requirements. This course examines crucial topics, including documented and undocumented immigration, labor, popular culture practices, the media, and political activism, facing contemporary Asian Americans. The bulk of the class will focus on Asian experiences in the United States, but the course is designed to also explore some of the issues associated with the global economy and the Asian diaspora. Letter grade only (A-F).

260. Introduction to Asian American Literature (3)

Prerequisites: Completion of GE Foundation requirements. A general survey course that includes critical readings of representative works in English by Chinese, Hawaiian, Japanese, Korean, and Filipino American authors, and any other writers of Asian descent who have made the United States their home. Emphasis will be placed on how they interpret their Asian American experiences in the various literary genres represented. Letter grade only (A-F).

290. Special Topics in Asian American Studies (1-3)

Prerequisite: Consent of instructor. Topics of current interest in Asian American Studies selected for intensive development. Topics will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

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 for a maximum of six 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 American Studies (3)

Prerequisites: Upper-division standing or consent of instructor, ASAM 220 and completion of General Education category "A" requirement. This interdisciplinary course explores the various approaches and theoretical underpinnings which have been employed to examine Asian American experiences. It is intended to survey some of the best of both traditional and cutting edge contributions to the field, examining the ways in which scholars connect texts to social and historical contexts, calling into question the arguments made, the sources of evidence, methodological practices, and the application of theories. Students will have the opportunity to conduct research on Asian American topics of their interest.

310. Asian Americans and Education

Examining problems and potentials of a multi-racial classroom for the understanding of, and relating to students of, diverse cultural backgrounds, with an emphasis on the Asian American. Small group interaction and counseling of individual students.

319. The Ethnic Experience in the U.S. (3)

An examination of the dynamics of the development of our multi-cultural 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 AIS 319, B/ST 319, CHLS 319, W/ST 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)

A study of the culture, history, and literature of Koreans in America, emphasizing immigrant experience, generational issues, women in transition and family.

333. Vietnamese American Experience (3)

A study of the culture, history, and literature of Vietnamese in America, emphasizing immigrant experience, generational issues, women in transition and family.

334. Cambodian American Experience (3)

A study of the culture, history, and literature of C in America, emphasizing immigrant experience, generational issues, women in transition and family.

335I. Asian and Latino Immigration Since World War II (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Analyzes the causes of a dramatic post-World War II shift in immigration from Europe to Asia and Latin America, immigrants' settlement and adaptation patterns, and the Asian and Latino communities' social, racial, political and economic impact on American society. Same course as CHLS 335I. (Lecture and discussion, 3 hours)

340. Asian American Family (3)

Study of the Asian American family as a social institution; emphasis on the influence and consequences of the traditional Asian values and the impact of Western culture in the formation of a distinct family life style.

345. Asian American Community Analysis (4)

Socioeconomic, political and cultural profile of Asian American communities; 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.

347. Asian Americans and Public Policy Issues (3)

The Asian Americans are the fastest growing ethnic population in the United States. This seminar will examine a range of public policy issues impacting Asian Americans. These will include issues affecting all Americans, such as adequate health care, attention to the elderly, and the education of our youth. Other issues to be addressed will focus on the particular situation of Asian Americans and other minority groups, including access to employment opportunities, political, cultural and media representation, and the increase in racial bias and violations of civil rights. An examination of these issues, and the development of policy perspectives, will serve as the basis for this seminar. (Lecture 3 hours.)

352. Filipino/a American Experience (3)

Focusing on the 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 in Filipino/a American communities.

360. Studies in Asian American Literature (3)

Key literary texts will be discussed in light of their contributions to an understanding of the lived experience of Asian Americans, especially as such creative work interethnic, class, gender, and generational conflict. Contemporary research in cultural studies, literary theory, and Asian American studies will provide the theoretical foundation for the analysis of Asian American literature.

370. Gender and Sexuality in Asian America (3)

Employing interdisciplinary approaches toward the study of issues associated with gender and sexuality in Asian America, this course 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.

380. Asian Philosophies and Religions in America (3)

Influence of and changes in Asian philosophies and religions in the American environment. Emphasis on Confucianism, Taoism, Hinduism, Buddhism and Shintoism in relation to individual and social values in America.

381. Asian American Women (3)

Will explore the largely unwritten history of Asian American women. Using an interdisciplinary perspective, will look at not only secondary sources but also autobiographical, literary, and journalistic writings; oral histories, diaries, anthropological studies, psychological/clinical reports, and film to reconstruct the lives of Asian American women. Will examine how having been burdened by the triple oppression of gender, race, and class, Asian American women have been actively pursuing equality and dignity. Same course as HIST 381 and W/ST 381. Lecture.

403. Asian American and Chicano/Latino Cinema (3)

Prerequisites: Completion of the Foundation courses, at least one Explorations course, and upper division status. This course is a team-taught class that explores the connections between Asian American and Chicano/Latino film. It is designed to examine the politics of representation in mainstream releases and independent films and videos by artists of color. Special attention will be paid to themes of collectivity, sexuality, racialized gender, race, and class formations, and social transformations. Emphases will be given to grounding issues presented in films within historical, literary, and cultural studies frameworks. Letter grade only (A-F). Same course as CHLS 403.

410. Poverty In Asian America (3)

Prerequisites: Completion of Foundation courses, at least one Explorations course, and upper division status. This course examines concentrations of poverty among Asian Pacific Americans (APA) and the reasons why some APA groups are among the poorest ethnic groups in the United States. To provide context, it introduces the basic features of poverty in the United States, major theories about the causes of poverty, and anti-poverty policies associated with those theories. The course looks at selected activities in APA communities, including nonprofit community-based social services, labor and community organizing, and political advocacy, that are intended to reduce poverty or ameliorate its effects. Letter grade only (A-F).

490. Special Topics in Asian American Studies (1-3)

Prerequisite: Consent of instructor. Topics of current interest in Asian American Studies selected for intensive development. May be repeated for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

495/595. 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.

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 six units.

Graduate Level

595/495. 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.

Chinese Studies (CHIN)

Lower Division

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. Introduction to pronunciation, reading, writing, conversation, and grammar. Students with previous training or native speakers of Chinese may not enroll.

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. Introduction to pronunciation, reading, writing, conversation, and grammar. Students with previous training or native speakers of Chinese may not enroll.

201. Intermediate Chinese (4)

Prerequisites: Completion of 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: Completion of 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.

250. Introduction to the *I-ching* (3)

Prerequisites: Completion of GE Foundation requirements. This course will focus on the central position of the *I-ching* in Chinese philosophical and spiritual life and provide a system of knowledge whereby a person can critically analyze and logically reason the pattern of changes governed by the immutable Law of Change. (Lecture in English, no knowledge of Chinese required.) Letter grade only (A-F).

260. Introduction to Chinese Civilization (3)

A thematic survey of various aspects of Chinese civilization from its ancient beginning to the present. The emphasis of the course is not only on understanding China's history in general chronological terms, but also on understanding the cultural qualities that have made China a great and distinctive country.

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 patterns and 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 patterns and expressions. Emphasis on reading, comprehension, vocabulary building and idiomatic usage.

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. With the assistance of the instructor, students will be required to produce a minimum of two properly mounted and framed calligraphic pieces by the end of the semester for a campus-wide exhibition and competition.

350. Business Chinese for Bilinguals (3)

Prerequisites: Native/near native proficiency in the Chinese language or consent of instructor. Prepares students to use Chinese for business purposes. Introduces a variety of written business forms in Chinese, examines business culture, practice, and etiquette. Students must be able to read and write Chinese for general purposes, e.g., read and write letters to family members, read advertisements, news and/or some articles in Chinese newspapers.

360. Classical Chinese (3)

Prerequisites: CHIN 202 or equivalent Chinese reading proficiency or bilingual students. Prepares students to read and understand classical Chinese, to gain basic knowledge of its vocabulary, grammatical structure and style that is different from modern Chinese. Introduction to various genres of classical literature: prose, poetry and other literary forms.

370. Chinese Literature in English Translation (3)

Readings in translation of representative works of the major literary genres in China covering both the classical and the modern period. Previous knowledge of the language is highly desirable, but not necessary.

380. Topics in Chinese Linguistics (3)

Prerequisites: CHIN 102 or equivalent. The 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. Lecture/discussion.

382A. Imperial China (3)

Completion of the GE Foundation. Introduction to the classical civilization stressing the evolution of imperial institutions, the Chinese world order and China's traditional cultural heritage. Same course as HIST 382A.

382B. Modern China (3)

Prerequisite: Completion of the GE Foundation. Chinese society from the 17th century to 1949. Impact of imperialism, reform and revolutionary movements, the background of Chinese communism. Not open to students with credit in HIST 482B. Same Course as HIST 382B.

390. Topics in Chinese Cultural Studies (3)

Prerequisites: Upper-division standing or consent of instructor. Study of characteristic features of Chinese culture through selected topics and themes in Chinese ethics, history, literature, philosophy, political science, and sociology. Topics vary from year to year based on specialty of the instructor. May be repeated to a maximum of 6 units on different topics.

410./510. Chinese Information Processing (3)

Prerequisite: CHIN 202 or equivalent. May be waived with instructor's consent. Introduction to the tools used in Chinese web design, including Chinese word-processing, HTML, web site layout, and user interaction. Knowledge of the language is desirable. The course addresses the fundamental pedagogical issues in web design with emphasis on the value of interactivity. May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; Graduates register in CHIN 510.

430A./530A. Classical Chinese Fiction (3)

Prerequisite: Upper-division standing or consent of instructor. An in-depth 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). Special attention will be given to the stylistic and vernacular characteristics of the representative works such as *Sanguo yanyi*, *Jin Ping Mei*, *Shuihu zhuan*, *Xiyou ji*, *Hongloumeng*, and *Rulin waishi*. Undergraduates register in CHIN 430A; Graduates register in CHIN 530A.

430B./530B. Classical Chinese Drama (3)

Prerequisite: Upper-division standing or consent of instructor. An in-depth study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from the major works of Northern Drama (*Zaju*), Southern Drama (*Nanxi*), to Peking Opera (*Jingxi*). Undergraduates register in CHIN 430B; Graduates register in CHIN 530B.

430C./530C. Classical Chinese Poetry (3)

Prerequisite: Upper-division standing or consent of instructor. An in-depth study and examination of traditional Chinese poetry, ranging from major works of poetry from antiquity to the Qing Dynasty (1644-1911). Special attention will be given to the textual analysis and literary interpretation of this large poetic body. Undergraduates register in CHIN 430C; Graduates register in CHIN 530C.

451./551. Chinese Culture and Tradition (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency. Designed primarily as an advanced language class, but its subject emphasis is the study and discussion of various aspects of Chinese culture and tradition. It encompasses historical, philosophical, linguistic, literary, artistic, and scientific perspectives. The instruction of this class is conducted in Mandarin. Undergraduates register in CHIN 451; Graduates register in CHIN 551.

488. The Chinese Revolution (3)

Prerequisite: CHIN 382B or consent of instructor. Theory and practice of revolutionary socialism in the People's Republic of China, historical and ideological background of the Chinese revolution, Mao and Maoism, politics, culture and society in China. Same course as HIST 488.

490./590. Special Topics in Chinese (1-3)

Prerequisite: Consent of instructor. Independent study under supervision of a faculty member. May be repeated for a maximum of 6 units with different topics. Undergraduates register in CHIN 490; Graduates register in CHIN 590.

492./592. Senior Seminar (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency. This is an introduction to research methods and the current status of the field. It is a comprehensive survey of recent scholarly publications in the area of Chinese Studies, covering a wide range of topics of academic import including society, philosophy, literature, religion, art, economy, politics, science, and medicine. It involves an intensive study of some of the paramount conceptual and theoretical problems that confront students of Chinese history and culture. The thematic focus will vary from year to year, depending on the instructor's disciplinary emphasis. May be repeated for a maximum of six units with different topics. Undergraduates register in CHIN 492; Graduates register in CHIN 592.

499. Directed Studies in Chinese (1-3)

Prerequisite: Consent of instructor. Independent study under supervision of a faculty member. May be repeated for a maximum of 6 units with different topics.

Graduate Level

510./410. Chinese Information Processing (3)

Prerequisite: CHIN 202 or equivalent. May be waived with instructor's consent. Introduction to the tools used in Chinese web design, including Chinese word-processing, HTML, web site layout, and user interaction. Knowledge of the language is desirable. The course addresses the fundamental pedagogical issues in web design with emphasis on the value of interactivity. May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 410; Graduates register in CHIN 510.

530A./430A. Classical Chinese Fiction (3)

Prerequisite: Upper-division standing or consent of instructor. Undergraduates register in CHIN 430A; Graduates register in CHIN 530A. An in-depth 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). Special attention will be given to the stylistic and vernacular characteris-

tics of the representative works such as *Sanguo yanyi*, *Jin Ping Mei*, *Shuihu zhuan*, *Xiyou ji*, *Hongloumeng*, and *Rulin waishi*.

530B./430B. Classical Chinese Drama (3)

Prerequisites: Upper-division standing or consent of instructor. An in-depth study and examination of Yuan (1279-1368) and Ming (1368-1644) drama, ranging from the major works of Northern Drama (Zaju), Southern Drama (Nanxi), to Peking Opera (Jingxi). Undergraduates register in CHIN 430A; Graduates register in CHIN 530A.

530C./430C. Classical Poetry (3)

Prerequisites: Upper-division standing or consent of instructor. An in-depth study and examination of traditional Chinese poetry, ranging from major works of poetry from antiquity to the Qing Dynasty (1644-1911). Special attention will be given to the textual analysis and literary interpretation of this large poetic body. Undergraduates register in CHIN 430C; Graduates register in CHIN 530C.

551./451. Chinese Culture and Tradition (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency. Designed primarily as an advanced language class, but its subject emphasis is the study and discussion of various aspects of Chinese culture and tradition. It encompasses historical, philosophical, linguistic, literary, artistic, and scientific perspectives. The instruction of this class is conducted in Mandarin. Undergraduates register in CHIN 451; Graduates register in CHIN 551.

590./490. Special Topics in Chinese (1-3)

Prerequisite: Consent of instructor. Independent study under supervision of a faculty member. May be repeated to a maximum of 6 units with different topics. Undergraduates register in CHIN 490; Graduates register in CHIN 590.

592./492. Senior Seminar (3)

Prerequisite: One China-related course in Asian Studies or History and CHIN 302 (Advanced Chinese) or equivalent proficiency. This is an introduction to research methods and the current status of the field. It is a comprehensive survey of recent scholarly publications in the area of Chinese Studies, covering a wide range of topics of academic import including society, philosophy, literature, religion, art, economy, politics, science, and medicine. It involves an intensive study of some of the paramount conceptual and theoretical problems that confront students of Chinese history and culture. The thematic focus will vary from year to year, depending on the instructor's disciplinary emphasis. May be repeated for a maximum of six units. Undergraduates register in CHIN 492; Graduates register in CHIN 592.

Japanese (JAPN)

Lower Division

101. Fundamentals of Japanese (4)

Prerequisites: One GE Foundation course which may be taken concurrently, or formal prerequisites and/or competency equivalent for JAPN 101. Introduction to pronunciation, reading, writing, conversation, and structure of the language. Native speakers of Japanese may not enroll.

102. Fundamentals of Japanese (4)

Prerequisites: One GE Foundation course which 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 language. Native speakers of Japanese may not enroll.

201. Intermediate Japanese (4)

Prerequisites: Completion of 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, communication, and structure of the language. Continuation of first year Japanese. Progressive drill on syntax and grammar and sentence patterns: reading, translation and composition. Native speakers of Japanese may not enroll.

202. Intermediate Japanese (4)

Prerequisites: Completion of 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, communication, and structure of the language. Continuation of first year Japanese. Progressive drill on syntax and grammar and sentence patterns: reading, translation and composition. Native speakers of Japanese 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 Japanese (3)

Prerequisites: JAPN 202 or its equivalent as determined by the instructor. Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.

302. Advanced Japanese (3)

Prerequisites: JAPN 301 or its equivalent as determined by the instructor. Study of modern spoken and written Japanese involving advanced patterns and expressions. Emphasis on reading comprehension, vocabulary building and idiomatic usage.

311. Advanced Spoken Japanese (3)

Prerequisites: JAPN 202 or its equivalent as determined by the instructor. Advanced study in modern spoken Japanese and Japanese communication.

312. Advanced Spoken Japanese (3)

Prerequisites: JAPN 311 or its equivalent as determined by the instructor. Advanced study in modern spoken Japanese and Japanese communication.

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. Letter grade only (A-F).

370. Japanese Literature in English Translation (3)

Readings in translation of representative works of the major literary genres in Japan covering both the classical and modern period. Previous knowledge of the language is highly desirable, but not necessary. (Lecture-discussion 3 hours.)

421./521. Selected Readings/ Writing in Japanese (3)

Prerequisites: JAPN 302 or consent of instructor. Undergraduates register in JAPN 421; graduates register in JAPN 521. Lecture. Readings from a selection of contemporary written materials including literary works, poetry, magazines, newspapers, reports, instructional and technical explanatory materials. May be repeated under different topics to a total of 9 units.

422./522. Technical Japanese (3)

Prerequisites: JAPN 421 or equivalent. Undergraduates register in JAPN 422; graduates register in JAPN 522. Lecture. Development of receptive and productive skills using a variety of authentic materials drawn from business, humanities, sciences, and others. The course materials will be selected according to particular areas of students' interest. Letter grade only (A-F).

451./551. Japanese Civilization (3)

Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 451; graduates register in JAPN 551. Lecture. 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.

461./561. The Structure of the Japanese Language (3)

Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 461; graduates register in JAPN 561. Lecture. Introduction to phonology, morphology, syntax, semantics and discourse of modern Japanese. Letter grade only (A-F).

462./562. Contrastive Analysis of English and Japanese (3)
Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 462; graduates register in JAPN 562. Lecture. Contrastive analysis of phonological, morphological, syntactic and discourse aspects of English and Japanese. Letter grade only (A-F).

471. Readings in Modern and Contemporary Japanese Literature (3)

Prerequisites: JAPN 302 or equivalent. Readings of representative works of modern and contemporary Japanese literature including short stories, novellas, diaries, memoirs, poetry, and excerpts from novels and plays. (Lecture) Letter grade only (A-F).

481./581. Principles and Practice of Teaching Japanese (3)

Prerequisites: JAPN 302, 312, 350, and at least one 400 level course, or equivalents. The course will introduce Japanese language teaching and learning in the U.S., focusing on application of principles of second language acquisition and exploration of linguistic, pedagogical, sociocultural issues relevant to teaching Japanese. Letter grade only (A-F). Undergraduates register in JAPN 481; graduates register in JAPN 581.

490. Special Topics in Japanese (1-3)

Prerequisite: Consent of instructor. Select topics related to advanced Japanese study. Course may be repeated to a maximum of 6 units with different topics

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. Undergraduates register in JAPN 492; graduates register in JAPN 592. Internship with community agencies, business firms, non-profit organizations, and government agencies which utilize communication skills in Japanese. Work done under joint direction of activity sponsor and faculty. Project report and internship conferences required. 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 or consent of instructor. Undergraduates register in JAPN 421; graduates register in JAPN 521. Lecture. Readings from a selection of contemporary written materials including literary works, poetry, magazines, newspapers, reports, instructional and technical explanatory materials. May be repeated under different topics to a total of 9 units.

522./422. Technical Japanese (3)

Prerequisites: JAPN 421 or equivalent. Undergraduates register in JAPN 422; graduates register in JAPN 522. Lecture. Development of receptive and productive skills using a variety of authentic materials drawn from business, humanities, sciences, and others. The course materials will be selected according to particular areas of students' interest. Letter grade only (A-F).

551./451. Japanese Civilization (3)

Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 451; graduates register in JAPN 551. Lecture. 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.

561./461. The Structure of the Japanese Language (3)

Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 461; graduates register in JAPN 561. Lecture. Introduction to phonology, morphology, syntax, semantics and discourse of modern Japanese. Letter grade only (A-F).

562./462. Contrastive Analysis of English and Japanese (3)

Prerequisites: JAPN 302 or equivalent. Undergraduates register in JAPN 462; graduates register in JAPN 562. Lecture. Contrastive analysis of phonological, morphological, syntactic and discourse aspects of English and Japanese. Letter grade only (A-F).

581./481. Principles and Practice of Teaching Japanese (3)

Prerequisites: JAPN 302, 312, 350, and at least one 400 level course, or equivalents. The course will introduce Japanese language teaching and learning in the U.S., focusing on application of principles of second language acquisition and exploration of linguistic, pedagogical, sociocultural issues relevant to teaching Japanese. Letter grade only (A-F). Undergraduates register in JAPN 481; graduates register in JAPN 581.

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. Undergraduates register in JAPN 492; graduates register in JAPN 592. Credit/No Credit grading only.

695. Directed Readings (1-3)

Prerequisites: Consent of Graduate Advisor. Readings in Japanese on an individual basis. Letter grade only (A-F).

697. Directed Research (1-3)

Prerequisites: Consent of Graduate Advisor. Research in Japanese on an individual basis. Letter grade only (A-F).

Korean (KOR)

Lower Division

101. Fundamentals of Korean (3)

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 are not eligible for this course.

102. Fundamentals of Korean (3)

Prerequisite/Corequisite: 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 are not eligible for this course.



BACCALAUREATE DEGREES AND OTHER UNDERGRADUATE PROGRAMS

Degrees

The Bachelor of Arts and the Bachelor of Science degree programs are constructed of three interrelated areas: the breadth component, called the General Education Program, which provides the basis for the baccalaureate degree because it offers training in general skills, methodologies, and habits of thought; 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 the elective component that provides the possibility for personal enhancement and development that can complement the rest of the degree program.

California State University, Long Beach offers the following Baccalaureate Degree Programs:

Bachelor of Arts Degree in:

- American Studies
- Anthropology
- Art
- Asian Studies
- Black Studies
- Business Economics
- Chemistry
- Chicano and Latino Studies
- Chinese Studies
- Classics
- Communicative Disorders
- Comparative Literature
- Dance
- Economics
- English
- Environmental Science and Policy
- Family and Consumer Sciences
- Film and Electronic Arts
- French
- French Studies
- Geography
- German
- History
- Human Development
- Interdisciplinary Studies
- International Studies
- Japanese
- Journalism
- Kinesiology
- Liberal Studies
- Music
- Philosophy
- Physics
- Political Science

- Psychology
- Recreation
- Religious Studies
- Social Work
- Sociology
- Spanish
- Speech Communication
- Theatre Arts
- Translation and Interpretation Studies
- Women's Studies

Bachelor of Fine Arts Degree in:

- Art
- Dance

Bachelor of Music Degree

Bachelor of Science Degree in:

- Audiology
- Aerospace Engineering
- Biochemistry
- Biology
- Business Administration
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Engineering
- Computer Science
- Construction Engineering Management
- Criminal Justice
- Dietetics and Food Administration
- Earth Science
- Electrical Engineering
- Electronics and Computer Engineering Technology
- Engineering
- Engineering Technology
- Environmental Science and Policy
- Geology
- Health Care Administration
- Health Science
- Industrial Design
- Interdisciplinary Studies
- Kinesiology
- Manufacturing Engineering
- Marine Biology
- Mathematics
- Mechanical Engineering
- Microbiology
- Nursing
- Occupational Studies
- Physics

Refer to specific departments in the section on Courses of Study for detailed descriptions of each program.

Double Major

You may complete two baccalaureate programs concurrently. Only one degree will be conferred and only one diploma issued. Therefore, you must designate which baccalaureate program is your primary major. Your degree will then take on the designation, i.e., Bachelor of Arts or Bachelor of Science, associated with that primary major. The fact that the requirements of two majors have been completed will be noted on both the diploma and the transcript. A course, or courses, may be used to satisfy the individual requirements of both majors, without limit, as long as the required pattern of coursework is completed for each major.

Additional Baccalaureate Degree

A graduated student who wishes to pursue an additional baccalaureate degree and maintain undergraduate status may 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.

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.

Certificate Programs

California State University, Long Beach offers 40 baccalaureate-level programs leading to the award of a Certificate. Certificate programs must require at least 18 units of course work, of which at least 15 units must be at the upper-division level. Many certificates require 24 to 27 units. 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. 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.

If you wish to pursue a baccalaureate certificate program, you should review the course requirements given in the department course listings of this catalog. The department responsible for each certificate is shown in parentheses. 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. Students wishing to receive a certificate must file a Request to Graduate form with enrollment Services.

Certificates

Administration of Campus Recreation and Student Service Programs (Recreation and Leisure Studies)
Administration of Outdoor Recreation Resources (Recreation and Leisure Studies)
Administration of Travel and Tourism (Recreation and Leisure Studies)
Administration of Volunteer Services (Recreation and Leisure Studies)
Aerospace Manufacturing (Aerospace Engineering)
American Indian Studies (American Indian Studies)
Asian American Studies (Asian and Asian American Studies)
Asian Studies (Asian and Asian American Studies)
Biomedical Art (Art)
Biotechnology (Biological Sciences)
Black Studies (Black Studies)
Cartography and Geographic Information Systems (Geography)
Child Development (Family and Consumer Sciences)
Community Physical Fitness (Kinesiology and Physical Education)
Energy Conversion and Power Systems Engineering (Electrical Engineering, Mechanical Engineering)
Environmental Studies (Environmental Studies)
Facilities Operations (Engineering Technology)
Foodservice Systems Administration (Family and Consumer Sciences)
Gerontology (Gerontology)
Heating, Ventilating, and Air-Conditioning Engineering (Mechanical Engineering)
Industrial Plastics Processing and Design (Mechanical and Aerospace Engineering)
Japanese (Asian and Asian American Studies)
Kinesiotherapy (Kinesiology and Physical Education)
Latin American Studies (Latin American Studies)
Legal Studies in the Liberal Arts (Legal Studies)
Medieval and Renaissance Studies (Comparative Literature and Classics)
Peace Studies (Peace Studies)
Pre-Athletic Training (Kinesiology and Physical Education)
Religious Studies (Religious Studies)
Russian and East European Studies (Russian and East European Studies)
Safety Operations (Engineering Technology)
Technical and Professional Communication (English)
Therapeutic Recreation (Recreation and Leisure Studies)
Transportation (Marketing)
Urban and Regional Studies (Geography)
Waste Engineering and Management (Civil Engineering)
Wilderness Studies (Kinesiology and Physical Education)

Minors

A minor consists of a minimum of 18 units, as specified by the department or program, at least nine of which must be upper-division. 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. The minimum overall GPA in courses toward the minor is 2.0. A minimum of six units of coursework toward the minor must be taken at CSULB.

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 and have that so noted on their transcripts. Unlike certificates, minors are awarded only as part of a baccalaureate degree. Students may not finish a minor after they have graduated, except in conjunction with a second baccalaureate degree.

Minors

American Indian Studies
American Studies
Anthropology
Applied Mathematics
Asian American Studies
Biology
Black Studies
Business Economics
Chemistry
Chicano and Latino Studies
Classical Studies
Comparative Literature
Computer Science
Consumer Affairs
Criminal Justice
Cross-Cultural Language and Academic Development Studies
Dance
Economics
English
Entrepreneurship
Environmental Engineering
Fashion Merchandising
Food Science
French
Geography
Geology
German
Greek
Health Science
History
Hospitality Foodservice and Hotel Management
Human Development
Human Resources Management
International Economics

International Studies
Italian
Jewish Studies
Journalism
Latin
Latin American Studies
Linguistics
Management Information Systems
Marketing
Mathematics
Medieval and Renaissance Studies
Microbiology
Middle Eastern Studies
Music
Philosophy
Physical Education Teaching
Physiology
Physics
Political Science
Psychology
Public Administration
Public Policy
Recreation
Religious Studies
Russian
Sociology
Spanish
Speech Communication
Textiles
Women's Studies

Credential Programs for Public School Service

Candidates for public school service credentials at the University are advised to familiarize themselves with the requirements for these programs. Descriptions of credential programs appear in a separate section of this *Catalog*. Specific information and applications to individual programs are available in program offices of the College of Education and departmental offices through which they are offered. Applications for student teaching and for field work in credential programs must be filed by October 1 for spring semester and March 1 for summer session and fall semester.

Requirements for the Baccalaureate Degree

1. Completion of a minimum of 120 units for the Bachelor of Arts. Completion of the minimum number of units which could range from 120 to 140 required by the major program for the Bachelor of Science, Bachelor of Fine Arts, or Bachelor of Music degrees. See the description of the requirements for your major for the specific number of units required.
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 cannot be counted toward fulfillment of the residence requirement.

4. Completion of the General Education program, as described in a separate section of this *Catalog*, including at least 9 units in upper-division courses completed at CSULB.
5. For students who entered with less than 56 units, completion of University 100.
6. To help insure timely completion of graduation requirements, students who have a total of 60 units completed and in progress must have declared a major before they may register for the next term. Upper division transfer students are required to declare their intended major on their application for admission.
7. Completion of the specific course and unit requirements for your academic major, as shown in the alphabetic listing for the major department. If the requirements are changed during your continuous attendance at CSULB, you have the right to meet either the requirements in effect when you entered the major or the requirements in effect at the time you graduate.
Effective 1996, 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.
8. Satisfactory performance on the Writing Proficiency Examination (see the Admissions section and later in this section of the *Catalog*).
9. Achievement of a minimum 2.0 ("C") grade-point average in each of the following:
 - A. The entire college record.
 - B. All units attempted at CSULB.
 - C. All courses in the major.
 - D. All upper-division courses in the major completed at CSULB.
10. Formal approval by the faculty of the university.

Procedural Information

- Request to graduate — You must file a Request to Graduate form with the Office of Enrollment Services prior to the announced deadline, which will be at least one semester prior to the expected graduation date.
- If you change your degree or major or expected graduation date, you must file a new request to graduate, and will be subject to a re-filing fee.
- If you have received an Incomplete grade, you must complete the course prior to the expected graduation date, or no later than the deadline for completion of the course which is normally within one calendar year immediately following the end of the term during which it was assigned, whether or not the student maintained continuous enrollment, whichever comes first. Any Incomplete remaining on your 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. You cannot make up an Incomplete after you have graduated.

Policy on International Baccalaureate

Students with scores of 5 or higher in International Baccalaureate Higher Level courses will be awarded baccalaureate credit of 4 to 10 units, depending on course equivalency. Departments will be responsible for determining which, if any, courses within their own programs are equivalent to International Baccalaureate courses, as well as the number of units to be awarded. Departments shall be provided with information about the program and with syllabi for IB courses, to be used in making this determination.

Student Grievance

The California State University, Long Beach Student Grievance Procedure is designed to give the campus community a grievance structure in those instances where no other policy or procedure exists. (This policy does not cover grade appeals, prohibited discrimination, etc. where there are existing policies).

The Office of the Vice President for Student Services has staff to help students understand the details of the Grievance Procedure and may be called on for assistance.

What are Student Grievance Procedures?

Student Grievance Procedures at California State University, Long Beach are intended to provide a formal, standardized means for students to seek redress concerning actions of the faculty, administrators, or staff of the University. Further, the purpose is to establish standardized procedures and safeguards which shall be followed by the University in the adjudication of grievances.

What is a Grievance?

A grievance is a formal complaint by a student arising out of an alleged action of the faculty, administrators, or staff of the University. The person or entity against whom the complaint is made is referred to in this document as the "respondent." Such action is alleged by the student to be an unauthorized or unjustified action which adversely affects the status, rights, or privileges of the student.

Students are reminded that the Grievance Procedure is not designed to replace the open communication and understanding that are vital to the academic process. The student may withdraw the grievance at any stage and the process will immediately terminate. During all stages of the grievance, the burden of proof will be on the student.

What is a Statement of Grievance?

The statement of grievance is a clear, simple statement according to the student's understanding of what happened. It should provide enough information to give the committee a complete understanding of the situation and the nature of the remedy sought from the student's perspective. The following steps are designed to assist in the preparation of a Grievance Statement.

How does one Grieve?

Informal Procedure

Step 1:

Informal discussion between the concerned parties is always the place to start. If attempts to resolve the problem at this level fail, or if the person alleged to have aggrieved the

student cannot be reached by reasonable effort, or if the nature of the grievance is such that an informal communication with the respondent is not feasible, the student must meet informally with the employee's department Chair, or the program's Director.

Note: In the event that the respondent is at the level of a Dean or higher, the complaint should be directed to the responsible person at the next administrative level. For non-academic matters, throughout these procedures, the term "Dean" refers to the responsible individual of comparable level, e.g., typically an Associate Vice President, or Vice President.

Step 2:

If after ten instructional days beyond the informal meeting a satisfactory solution is not found, the department Chair or program Director will meet with the student.

Within 15 instructional days of the receipt by the Chair or program Director of the student's complaint, the Chair or program Director will investigate the allegations and reach a conclusion. The Chair or program Director shall promptly communicate the decision to the student and the respondent. If either the student or the respondent disagrees with the chair's or program director's findings, recommendations, or decision, that person may appeal under step three.

Step 3:

If the student or respondent is not satisfied with the results of step two, or if the grievance is against the Chair of a department or Director of a program, the student may consult with the appropriate college Dean (academic) or responsible person at the next administrative level (non-academic).

Formal Procedure

Step 1:

In the event the informal process does not bring satisfactory resolution to the complaining student or the respondent, then either party may initiate the formal procedures by writing a letter of complaint and submitting it to the appropriate department Chair or program Director. The Chair or Director then submits a copy of the letter of complaint to the dean¹ and the responding party. The responding party will reply in writing, normally within 10 instructional days, to the Chair or Director. The Chair or Director submits a copy of the reply to the other party and the Dean.

Step 2:

The Dean may then: (1) Normally within 10 instructional days after reviewing the letter of complaint and the response, the Dean may seek additional information from the parties or witnesses, and (2) review the matter and render a decision or (3) form a hearing committee which will make a recommendation to the Dean as follows:

A. The hearing committee in academic matters will consist of two faculty members, two student members and one staff member. The two students and the two faculty shall both be within the college, with one student and one faculty within the department and one student and one faculty outside the department of the respondent. The staff member shall be from within the college.

B. The hearing shall normally be held within 10 instructional days after the hearing committee is formed unless the letter of complaint is withdrawn or there occurs an earlier settlement of the matter. Internal hearing procedures re-

garding the conduct of the hearing shall be developed by each college and be made available to both parties. Each party may have one representative at the hearing who may be anyone other than legal counsel.

C. In matters outside an academic department in which no other policy or procedures apply, the responsible person one level above the employee's supervisor shall have the option of establishing an all-University hearing committee consisting of three other employees, two of whom must be from outside the respondent's program, and two students selected in consultation with the A.S.I. President.

D. The charge of the committee will be to investigate, and recommend a proposed resolution to the Dean. After receiving the recommendation, the Dean shall notify both parties of the decision. In the absence of an appeal, the decision of the Dean is final.

Step 3:

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 decision (Step 2). The Provost or Vice President will notify both parties of the appeal, review all written documentation and may investigate further or refer back to the Dean for further findings. The Provost or Vice President will then notify both parties of her/his decision.

Systemwide Tests Required of Most New Students

The CSU requires new students to be tested in English and mathematics as soon as possible after they are admitted and before enrollment. These are not admission tests, but a way to determine whether you are prepared for college work and, if not, to counsel you how to strengthen your preparation. You might be exempted from one or both of the tests if you have scored well on other specified tests or completed appropriate courses.

English Placement Test (EPT)

The CSU English Placement Test must be completed by all non-exempt undergraduates prior to placement in appropriate university English coursework. Exemptions from the test are given only to those who present proof of one of the following:

- a score of 550 or above on the Verbal section of the College Board SAT I* Reasoning Test taken on or after April 1, 1995;
- a score of 470 or above on the Verbal section of the College Board SAT I* Reasoning Test taken between March 1994 and March 1995. A score of 470 or above on the Verbal section of the College Board Scholastic Aptitude Test (SAT) taken prior to March 1994;
- a score of 24 or above on the enhanced ACT English Test taken October 1989 or later;
- a score of 22 or above on the American College Testing (ACT) English Usage Test taken prior to October 1989;
- a score of 680 or above on the re-centered and adjusted College Board SAT II: Writing Test taken May, 1998 or after;
- a score of 660 or above on the College Board SAT II* in English Composition with essay taken prior to January 1994;

- a score of 3, 4, or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Scholastic Advanced Placement Program;
- a score on the CSU English Equivalency Examination that qualifies the student for "Pass for Credit" or "Exemption;"
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) written communication requirement, provided such course was completed with a grade of "C" or better.

To file for one of the above exemptions, you may obtain an Exemption Form from the Office of Testing and Evaluation Services (562) 985-4007. Information bulletins and registration materials for the EPT will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Enrollment Services or from Testing and Evaluation Services. EPT registration does not require a fee.

*NOTE: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II, respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams have been scored on a new scale.

Entry-Level Mathematics (ELM) Exam

The ELM examination tests for entry-level mathematics skills acquired through three years of rigorous college preparatory mathematics coursework (normally Algebra I, Algebra II, and Geometry). All undergraduate students must take the test or be exempted from it prior to enrollment in classes. Specific policies regarding retesting and placement will be determined by the campus. Exemptions from the test are given only to those students who can present proof of one of the following:

- a score of 550 or above on the mathematics section of the College Board SAT I Reasoning Test or on the College Board SAT II Mathematics Tests Level I, IC (Calculator), II, or IIC (Calculator);
- a score of 23 or above on the American College Testing Mathematics Test;
- a score of 3 or above on the College Board Advanced Placement mathematics examination (AB or BC);
- a score of 3 or above on the College Board Advanced Placement Statistics examination;
- Completion and transfer of a course that satisfies the General Education-Breadth or Intersegmental General Education Transfer Curriculum (IGETC) quantitative reasoning requirement, provided such course was completed with a grade of "C" or better.

These tests should be taken at the next opportunity after admission or as soon as possible thereafter. Information bulletins and registration materials for the EPT and ELM will be mailed to all students subject to the requirements. Required exams will be indicated in the Letter of Admission. The materials may also be obtained from the Office of Enrollment Services or Testing and Evaluation Services. There is a \$16.00 registration fee for the ELM.

Writing Proficiency Examination

All candidates for degrees and certificates must demonstrate competency in writing skills as a requirement for graduation. Every student under the 1977-78 or subsequent catalog must pass the Writing Proficiency Examination (WPE) to be certified proficient in written composition in English. Students under catalog regulations earlier than 1977-78 are exempt from

this requirement if they have maintained continuous attendance.

The Writing Proficiency Examination is a junior-year requirement. The test must be taken by the end of the semester in which an undergraduate student earns 65 or more units. Transfer students with 65 or more units must take the WPE within the first semester of residency at CSULB.

Undergraduate students who do not attempt the test by the time they attain 65 units will have a hold placed on their Voice Response Registration. Registration for the test does not by itself release this hold. The VRR hold will not be released until two weeks after the test date. A request for deferment, for compelling reasons, can be filed at the Office of Testing and Evaluation Services, Brotman Hall (BH) - 216, (562) 985-4007. In certain circumstances, a contract can be submitted to release a VRR hold temporarily. Students must attempt the WPE prior to filing a Request to Graduate.

The responsibility for acquiring the skills necessary to pass the examination is the student's. Regular courses to improve writing skills are available in the University or through University College and Extension Services. Please see WPE Preparation and Review, in the section of the catalog called "Undergraduate Programs." Counseling and other assistance are available through the WPE Advising Center, located in the Learning Assistance Center, Library East - 012.

The examination may be retaken as many times as necessary. However, students who have failed the WPE twice must seek advisement from the WPE Advisory Center and show evidence that they have followed advisor recommendations regarding coursework, tutoring, or other assistance with English language skills before they will be allowed to register for a third attempt. Two 3-hour workshops are offered just prior to each test administration. Information regarding the administration of this examination may be obtained from the Office of Testing and Evaluation Services, BH-216, (562) 985-4007. To cover the costs of administration and scoring, a fee will be charged each time the examination is taken.

Preparation for Writing Proficiency Examination

The University offers instruction for students who have experienced difficulty with the Writing Proficiency Examination or with certain courses which require intensive writing as a part of the course requirements.

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. Course is repeatable 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. Course is repeatable until the WPE is successfully passed. (Activity)

ENGL 301E. English Proficiency (3)

Prerequisite: ENGL 100 or equivalent. An 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. Course may be repeated to a maximum of 6 units. Traditional grading only.

Educational Opportunity Program (EOP)

The Educational Opportunity Program assists historically low income, first generation college students seeking a four-year college degree. Applicants are guided through the admissions and financial aid process during the application cycle and if admitted, are provided registration assistance, orientation to the college environment, academic and personal support, study skills instruction, tutoring and career advisement to insure the maximum opportunity for success at the University. Students must be admitted to EOP during their initial application to the University. All first-time freshmen EOP participants are required to enroll in EOP 100 during their first semester of enrollment.

EOP 100. EOP Orientation (2)

An introduction and orientation to college life for EOP students. A review of campus and community resources available to support students participating in the Educational Opportunity Program. Instruction in various academic survival skills that are necessary for college success. Areas of review include: time management, research methodology and term paper development, test-taking strategies, and decision-making. Traditional grading only.

Special Course Requirement

University (UNIV) 100. The University and Your Future (1)

All undergraduate students who enter this university with fewer than 56 transferable semester units shall complete a one-unit (15 hour) course which includes instruction in the history and Mission of the University. Credit/No Credit grading only.

University 100 includes an introduction to university traditions; to current issues in higher education (e.g., the role of general education, global interconnectedness, ethics); to academic freedom, tenure, and students' rights and responsibilities; and to services available at the university throughout the student's academic career (e.g., Career Development Center, Learning Assistance Center). It also includes a component on the use of the University Library and campus information technologies.

University 100 is offered the week before or during the first five weeks of the semester. Please consult the *Schedule of Classes* under "University 100" for information on course offerings.

Students who do not complete the requirement within their first two semesters of enrollment on campus may be disenrolled from the university before their third regular semester.

University Courses (UNIV)

UNIV 300I. Odyssey (3) F

Prerequisites: General Education A requirements in composition, speech, and critical thinking. Upper-division status. Drawing upon departments from across the University, this course will investigate topics of great importance to our lives. The topics, or themes, will vary year by year. Students will learn how the methodologies of different disciplines approach a common problem. Course may be repeated for a maximum of 6 units.

UNIV 301I. Odyssey (3) S

Prerequisites: General Education A requirements in composition, speech, and critical thinking. Upper-division status. Drawing upon departments from across the University, this course will investigate topics of great importance to our lives. The topics, or themes, will vary year by year. Students will learn how the methodologies of different disciplines approach a common problem. Course may be repeated for a maximum of 6 units.

UNIV 400. The University in Your Future Student Leadership (1)

Prerequisites: Selected by University 100 Director. Students assist University 100 faculty in presentation of course. May be repeated for a maximum of 3 units. Credit/No Credit grading only.

BIOLOGICAL SCIENCES

College of Natural Sciences and Mathematics

Department Chair

Laura Kingsford

Department Office

Peterson Hall (PH) 1-109

Telephone/FAX

(562) 985-4806/(562) 985-8878

Website

www.csulb.edu/depts/biology

Faculty

Professors

Rajen S. Anand

James W. Archie

David M. Carlberg (Emeritus, 1999)

Charles T. Collins (Emeritus, 2001)

L.K. (Vern) Eveland

Henry C. Fung

Editte Gharakhanian

Charles P. Galt

Kenneth M. Gregory (Emeritus, 2001)

Ju-Shey Ho (Emeritus, 1999)

Carol A. Itatani

Ira Jones (Emeritus, 1999)

Balwant S. Khatra

Laura Kingsford

Lisa S. Klig

Steven L. Manley

Andrew Z. Mason

Alan C. Miller

Terrence A. Shuster

Toni L. Stanton

Associate Professors

Philip C. Baker

Flora Banuett

Judith A. Brusslan

Elizabeth D. Eldon

David G. Huckaby

Kevin M. Kelley

Edward Tjioe (Emeritus, 2000)

Raymond R. Wilson

Assistant Professors

Clifton V. Franklund

Peter J. Hodum

Kay K. Lee-Fruman

Christopher G. Lowe

Donna Marykwas

Dessie L. Underwood

Antonia Wijte

Kelly A. Young

Mason X. Zhang

Administrative Support Coordinator

Susan Suetsugu

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

Credential Advisor

Laura Henriques

Undergraduate Advisors

Biology — David G. Huckaby

Marine Biology — Antonia Wijte

Microbiology — Carol A. Itatani

Physiology — Toni L. Stanton

Honors in the Major

Laura Kingsford

Health Professions Advising Office (F05-109)

Carol A. Itatani, Faculty Director

Eileen Tom, Coordinator

Clinical Laboratory Scientist/Medical Technology Advisor

Carol A. Itatani

Biotechnology Certificate Advisor

Lisa S. Klig

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

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. On this campus the biological sciences are distributed among three separate Departments in the College of Natural Sciences and Mathematics. The discipline of biochemistry is located in Chemistry and Biochemistry and the disciplines of invertebrate and plant paleontology are located in 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, six specialized options in Biology Education, Botany, Cell and Molecular Biology, Ecology, Physiology, and Zoology. See below for the specific requirements for each of these degrees and options.

The Department occupies facilities in five science buildings. Courses and student research in organismal biology and ecology are enhanced by a marine biology laboratory with an extensive seawater system, greenhouses, and research and teaching collections of algae, vascular plants, invertebrates (including insects), and vertebrates. Because the campus is near the ocean, mountains, and deserts, the Department is able to offer a number of field and laboratory courses in botany, ecology, entomology, marine biology, and vertebrate zoology. Courses and student research opportunities are available in biotechnology, experimental biology, and clinical laboratory science (medical technology). State-of-the-art facilities are available for graduate and undergraduate research in the W. M. Keck Cellular and Molecular Biology Laboratory and electron microscope facility.

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.

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.

Linda Warren Graham Medical Technology Scholarship

The Linda Warren Graham Medical Technology Scholarship is available to senior microbiology majors who have 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 March prior to graduation.

Financial Support, Assistantships

The Department of Biological Sciences offers a limited number of teaching associate and graduate assistant appointments. Forms requesting consideration for these appointments are available in the Department 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 which provide for research assistantships. A number of scholarships are available through the University.

Graduate and Health Professional Preparation

In addition to preparing students for careers in teaching, industry, and government, the undergraduate programs in this Department provide 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 251; 320A,B; 377A,B; 441A,B).

Students desiring entrance into one of the various health-related professional schools including chiropractic, dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, and veterinary, or to a graduate program in physical therapy, should consult with the Health Professions Advising Office of the College of Natural Sciences and Mathematics

(FO5-109) for more information. Most of these schools do not require students to major in any particular discipline and many do not even require a bachelor's degree; rather, they want students who have done well in their major and who also took the prerequisite courses required by that particular school.

Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' 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 Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

Bachelor of Science in Biology

This degree includes a general option in biology and six additional options for those desiring a more specialized program.

Biology (code BIOLBS01) (120 units)

This degree major is designed for students pursuing careers that involve the study of life; it is especially appropriate for those contemplating graduate work in the biological sciences. This option gives the student a broad background involving coursework in most of the major areas of biology, without requiring specialization in any one particular field. Students in this option have more elective courses in their major than in the other, more specialized, options, which enables them to partially concentrate their studies in a particular area if they so choose. This option requires approximately 79-81 units in the major, of which 37-39 are in lower division and 42 are in upper division.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A, 100B.

Upper Division: CHEM 320A,B; at least 34 units in biological science including BIOL 340, 345, 345L, 350, 370; one of BIOL 313, 316, 324; one of BIOL 427, 439; and 12-13 additional units selected from upper division courses in the Department of Biological Sciences. At least two of the courses selected to fulfill these additional units must have numbers between 410-499. Either CHEM 441A,B or 448 will count but BIOL 303, 304, 306, 309I, 401; MICR 300I, 303; NSCI 492 will not count toward these additional 12-13 units. Up to six of these additional units may be substituted from courses in other departments in the College of Natural Sciences and Mathematics upon approval by the undergraduate advisor. Students contemplating graduate work should consider taking 1-3 units of BIOL 496.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Biology Education (code BIOLBS02) (120 units)

This option is designed solely for students pursuing the Single Subject Teaching Credential in Science, Biological Sciences Concentration. Although designed to provide the required coursework in science to enter this credential program, students should keep themselves informed about any changes in the credential by referring to the section in this Catalog under Single Subject Teacher Education Program and contacting the Science Education Department. This option requires approximately 77-87 units in the major, of which 48-50 are in lower division and 29-37 are in upper division.

Lower Division: ASTR 100; BIOL 211A, B, 260; CHEM 111A, B; GEOL 102, 104, 160; MATH 119A or 122; MICR 200 or 211; and PHYS 100A,B.

Upper Division: CHEM 327 or both 320A and B; and eight additional courses totaling 26-29 units in the biological sciences including BIOL 312, 340, 345, 350, 370; one of these three plant biology courses: BIOL 328, 439, 447; one of these three animal biology courses: BIOL 313, 324, 332. The remaining biological sciences course should be chosen in consultation with an advisor; BIOL 495/MICR 495 is highly recommended. Either CHEM 441A, B or 448 will count but BIOL 303, 305, 306, 308I, 401; MICR 300I, 303; NSCI 492 will not count toward these two additional required courses.

Although SCED 403, 404, EDSS 300C, and MICR 300I 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.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Botany (code BIOLBS03) (121 units)

This option is designed primarily for those interested in careers involving the biology of plants and is particularly appropriate for those contemplating graduate work in this field. This option requires approximately 78-80 units in the major, of which 37-39 are in lower division and 41 are in upper division.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A,B.

Upper Division: 41 units including CHEM 320A,B; BIOL 340, 350, 370, 427, 439, 447, 450. Remaining 9 units selected in consultation with appropriate faculty advisor. CHEM 441A,B or 448 will count but BIOL 303I, 304, 306, 309I, 401; MICR 300I, 303; NSCI 492 will not count toward these nine units. Students contemplating graduate work should consider taking 1-3 units of BIOL 496.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Ecology (code BIOLBS05) (125 units)

This option is designed for students interested in careers involving the study of organisms in relation to their environment, either in private industry or government service, as well as those

students contemplating graduate work in this field. This option requires approximately 85-92 units in the major, of which 41-43 are in lower division and 44-49 are in upper division.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; GEOL 102, 104 or 105; MATH 119A or 122, 119B or 123; PHYS 100A,B.

Upper Division: CHEM 320A,B; BIOL 312, 340, 345, 345L, 350, 370, 427; one of BIOL 313, 316, or 324; four additional courses including one of these 9 in organic diversity; BIOL 313, 316, 324, 419, 421, 423, 424, 425, 439; one of these 10 in ecology and environmental science: BIOL 414, 450, 451, 453, 454A, 454B, 455, 457, 458, 464; one of these four in quantitative biology: BIOL 456, 463, 465, 467; and another course from any of the preceding three lists or BIOL 351, 353, 452, 459, GEOG 440, 473, 481, GEOL 339. With permission of the appropriate faculty advisor, three units of BIOL 496 is acceptable as this fourth additional course.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Physiology (code BIOLBS06) (120 units)

This option is designed primarily for those interested in careers involving the study of function in animals, especially humans, and is particularly appropriate for those contemplating graduate work in this field or entering one of the health professions, such as medicine and physical therapy. This option requires approximately 77-80 units in the major, of which 37-39 are in lower division and 40-41 are in upper division.

Lower Division: BIOL 211A, B, 260; CHEM 111A, B; MATH 119A or 122, 119B or 123; PHYS 100A,B.

Upper Division: CHEM 320A, B, 441A, B; BIOL 340, 350, 370, one course in morphology and development from BIOL 332 or 433; either BIOL 345 & 345L or 341 or 342 and 342L, nine additional units selected from BIOL 342, 342L, 345, 345L, 441, 442, 443, 445, 446, 448, 473, MICR 430. Students contemplating graduate school should consider taking an additional 1-3 units of BIOL 496.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Zoology (code BIOLBS07) (123 units)

This option is designed primarily for those interested in careers that involve the biology of animals and is particularly appropriate for those contemplating graduate work in this field. This option requires approximately 83-88 units in the major, of which 41-44 are in lower division and 42-44 are in upper division.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; GEOL 102 and 104 or 105, or MICR 211; MATH 119A or 122, 119B or 123; PHYS 100A,B.

Upper Division: CHEM 320A,B; BIOL 312, 340, 345, 345L, 350, 370, 313 or 316, 324 or 332; at least one course selected from BIOL 419, 421, 423, 424; and at least two additional courses

es in biological science totaling at least six units chosen in consultation with a faculty advisor. Either CHEM 441A,B or 448 will count but BIOL 303, 304, 306, 309I, 401; MICR 300I, 303; NSCI 492 will not count toward these six units. Students contemplating graduate work should consider taking 1-3 units of BIOL 496.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Option in Cell and Molecular Biology (code BIOLBS04) (121 units)

This option is designed primarily for those interested in careers that involve biology at the cell and molecular levels and is particularly appropriate for those contemplating graduate work in these fields. This option requires 81-84 units in the major, of which 42-44 are in lower division and 39-40 are in upper division. Students in this option might also want to pursue the Certificate in Biotechnology described elsewhere in this catalog.

Lower Division: BIOL 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; MICR 211; PHYS 100A,B.

Upper Division: CHEM 320A,B, 441A,B; BIOL 340, 340L, 350, 370, 433; three courses selected from BIOL 440, 443, 445, 447, 464, 465 or 467, 473, 477, CHEM 547, MICR 430, 452. Students who contemplate graduate work are strongly encouraged to take, in addition, at least 2 units of BIOL 496.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Bachelor of Science in Marine Biology (code BIOLBS08) (127 units)

Rocky shores, sandy beaches, tidal wetlands, kelp forests, and the open ocean coupled with the anthropogenic activities of a major urban area provide the seascape for our Bachelor of Science in Marine Biology. This degree is designed for students seeking positions in private industry and governmental agencies and is also appropriate for those considering graduate work in marine biology and ecology. The program takes ready advantage of the region's diverse habitats with a strong field orientation, supported by the R.V. Yellowfin, an 80' teaching and research vessel. Coincidental with this, environmental problems in the Southern California Bight provide another area for student interests.

This degree requires approximately 87-93 units in the major, of which 40-42 are in lower division and 47-51 are in upper division. The number of units and particular blend of science and mathematics makes this a very challenging learning experience. However, the depth and strength of this degree provides a strong and flexible base to pursue a variety of careers. Obtaining a minor in another discipline, such as chemistry, microbiology, engineering, business, or computer science, may enhance one's marketability.

Lower Division: BIOL 153, 211A,B, 260; CHEM 111A,B; MATH 119A or 122, 119B or 123; PHYS 100A,B.

Upper Division: CHEM 320A,B; BIOL 345, 345L, BIOL 313 or 413, 340, 350, 353, 370, 419, 425, GEOL 465, 466; two courses selected from the following eleven in marine science: BIOL 313, 413, 414, 420, 428, 451, 454A, 455, 458, 464, and, with permission of marine biology advisor, BIOL 490; select one course, or course series, from the following six in methodology and techniques: BIOL 457, 463, 465, 467, and, with permission of marine biology advisor, BIOL 496, or GEOL 364 and 364L.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Bachelor of Science in Microbiology (code BI- OLBS09) (131 units)

Microbiology is the study of microorganisms and their interactions with people and the environment. This degree, with the inclusion of appropriate classes, may be utilized by pre-professional students who are preparing for medical, dental, pharmacy, and veterinary school. A major in microbiology prepares students for a wide range of employment opportunities in clinical and public health fields, genetic engineering, environmentally related fields, and industries concerning food, pharmaceuticals, and medical equipment and supplies. There is a core of courses for each of these varied educational and employment opportunities and specific programs can be arranged by counseling with microbiology advisors in the Department. This undergraduate major is recognized by the American Society for Microbiology as meeting their core curriculum for the baccalaureate degree program in microbiology, if students use MICR 471 as an elective. This major requires 91-92 units, of which 43-44 are in the lower division and 48 are in upper division.

Lower Division: BIOL 211A, B, 260; CHEM 111A, B, 251; MATH 119A or 122; MICR 211; PHYS 100A,B.

Upper Division: CHEM 320A, B, 441A, B; BIOL 340; MICR 320, 322, 430, 430L, 452, either both 450 and 451 or BIOL 370, and 9 additional elective units chosen from: BIOL 473, 477; MICR 323, 429, 432, 471, 473, 480, 490, 495, 496. MICR 323, 429 and 432 are particularly useful for Clinical Laboratory Science (Medical Technology) and other health related careers. The following courses are not acceptable toward the 9 units: MICR 300I, 303.

CSULB requires a "C" average in all upper division courses in the major taken at CSULB. For students who do not meet this requirement, the Department of Biological Sciences will allow graduation if they earn at least a "C" the last time they complete each upper division course in their major at CSULB.

Bachelor of Science Degree with Honors in Biology, Marine Biology, or Microbiology

Students majoring in the B. S. in Biology (all options), B. S. in Marine Biology, or B. S. in Microbiology 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 also complete General Honors through the University Honors Program, in which case the General Honors thesis requirement is met through Honors in the Major (see University Honors in this *Catalog*).

Students interested in graduating with Honors in the Major should participate in a series of courses designed to introduce central concepts in biology (BIOL 110H), develop critical thinking and communication skills (special section of UHP 100), and introduce the newly emerging field of bioinformatics (BIOL 220H). In addition, they may join a learning community of students with similar interests and benefit from mentoring by faculty members.

This Honors in the Major program was created with the support of a grant from the Howard Hughes Medical Institute. Students admitted to Honors in the Major may be eligible to receive monetary support from a variety of sources for completion of their honors research and thesis.

Students who have successfully completed the lower division Honors in the Major curriculum will receive priority for research fellowship support to the extent that it is available.

Additional details about this program, including availability of fellowship support, are available from the Honors in the Major Program Advisor.

Requirements for Admission

1. Junior or senior standing with at least one year remaining before graduation.
2. Declared major of B. S. in Biology (any option), B. S. in Marine Biology, or B. S. in Microbiology.
3. Completion of BIOL 211A,B, 260; CHEM 320A,B at 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. GPAs of at least 3.000 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 (including a description of any previous research experience), and willingness to commit to a year-long research experience.
6. Letter of recommendation from a CSULB faculty member familiar with the student's work and abilities.

Requirements for Graduation

1. GPA of at least 3.300 in all upper division courses in the major and in Honors courses.
2. Completion of all requirements for the chosen degree in the Biological Sciences.
3. Completion of either BIOL 220H or 477.
4. Completion of BIOL 466H, Research Design and Methods - Honors (3 units).
5. Completion of 3 units of BIOL 496, Undergraduate Directed Research.
6. Completion of 3 units of BIOL 498H, Thesis - Honors.
7. 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 Program Director for additional information

Substitutions to this program must be approved by the Honors in the Major Program Advisor.

Minor in Biology (code 0-BIOLUM01)

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 19 units is required for the minor.

Lower Division: BIOL 211A, B. (211A requires CHEM 111A; 211B requires CHEM 111B.)

Upper Division: A minimum of nine units selected from upper division biology courses with at least one course selected from the 400 series. The following courses are not acceptable toward these nine units: BIOL 303, 304, 306, 309I, 401; MICR 300I, 303, 429.

Minor in Microbiology (code BIOLUM04)

This minor may be combined with any major at CSULB except the B.S. in Microbiology.

A minimum of 21 units which must include:

Lower Division: MICR 211.

Upper Division: MICR 320, 430, and 452; plus a minimum of five units from the following: MICR 322, 450, 471, and 473.

Minor in Physiology (code BIOLUM03)

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 of these 18 units must be selected from the following courses: BIOL 341, 342, 342L, 345, 345L, 442, 443, 445, 446, 448, 490. The other six of these eighteen units must be selected from other courses in the above list or from BIOL 473; CHEM 441A,B, 443, or 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 211A, B as prerequisites; some have other prerequisites in addition.

Certificate Program in Biomedical Art (code ART_CT01)

The Certificate Program in Biomedical Art is an interdisciplinary program sponsored by the Art and Biological Sciences Departments. Requirements for the certificate are listed in the Art section of this *Catalog*. Co-directors of the CSULB biomedical art program are in Art, Mr. Peter Mendez; and in Biological Sciences, Dr. Kenneth Gregory. Questions may be addressed to them during office hours, which are listed in the respective departmental offices.

Certificate in Biotechnology (code BIOLCT01)

Biotechnology is a rapidly growing field which encompasses many domains of science. Specifically, biotechnology refers to a process which ultimately yields a product. The products can be loosely subdivided into five categories; biological organisms with novel traits, DNAs, RNAs, proteins, and compounds. The Undergraduate Certificate in Biotechnology is the integrated use of specific offerings of the College of Natural Sciences and Mathematics, including the departments of Biological Sciences and Chemistry and Biochemistry. Laboratory facilities and selected courses will serve to provide a fundamental background in the theory and techniques of biotechnology. 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.

Prerequisites for Admission

1. Completion of the following courses with a grade of "C" or better (or permission of the biotechnology certificate program director): CHEM 111A, B; CHEM 320A, B; CHEM 441A, B; BIOL 340; BIOL 370; MICR 211.

Requirements

1. A baccalaureate degree (can be concurrent);
2. Completion of the program's prerequisite course requirements;
3. Approval by the program director;
4. Completion of the Core Curriculum: BIOL 477/577 (3); NSCI 492 (3); BIOL 473/573 (3); MICR 480/580 (1); Additional 3 units to be selected in consultation with the program director;
5. Completion of 3 units consisting of an approved research project in biotechnology to be taken from one or more of the following: BIOL 496; CHEM 496; or MICR 496 (undergraduate students); BIOL 697; CHEM 697; or MICR 697 (graduate students);
6. Total Units Required for Certificate: 16-17 units

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.

Master of Science in Biology (code BIOLMS01)

The available programs in this degree cover a wide spectrum of biology and include both laboratory and field study. 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 Graduate Office.

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 bachelor's degree in the biological or related sciences with minimum coursework similar to the lower division requirements of a degree program in the Department of Biological Sciences, CSULB, including cell biology and statistics, ecology, and genetics (other undergraduate degrees will be considered by the Graduate Studies Committee);
2. An undergraduate grade point average in all completed science and mathematics courses of at least 2.70, or a grade point average of at least 3.00 in the last 40 semester (60 quarter) units of science and mathematics courses completed; and

3. The Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology, which must have been taken prior to applying to the Department. Most students who apply with a score less than the 50th percentile on this test will be denied admittance to the Department. The GRE Subject Test must have been taken within five years prior to the intended admission date.

A student who does not meet these minimum entrance prerequisites must obtain a faculty sponsor in order to be considered for admittance.

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 15 March for the fall semester or 15 October for the spring semester to receive consideration for admission:

1. Departmental Application Form, available from the Department's Graduate Office;
2. Official transcripts of all college level academic work including that done at CSULB (these are in addition to those transcripts required for general graduate admission to CSULB);
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential (if applying for a teaching associate position, the letters must refer to the applicant's potential to teach laboratory sections in the biological sciences); and
4. Official report of scores on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. The applicant should have taken this examination well prior to applying to the Department, because the official score must reach the Department by the deadlines above.

These materials must be submitted to the Department's Graduate Office.

Review by the Graduate Studies Committee

The Graduate Studies Committee will review all folders completed by the deadlines and either accept the applicant as a Classified or Conditionally Classified graduate student or deny admission. Acceptance is competitive and the GPA, the GRE Subject Test score, and the letters of recommendation will be weighed in the decision to accept or reject an applicant. All accepted students must contact the Departmental Graduate Advisor prior to their initial semester for counsel and orientation.

Admission to the Department of Biological Sciences as a Classified Graduate Student (7621-052)

The Department of Biological Sciences may admit as a Classified graduate student any applicant who:

1. has met all prerequisites,
2. has a complete folder of all required documents, and
3. has obtained acceptance by a faculty member as the Chair of the student's Thesis Committee. The student should then set up a program (see "The Program of Study", below).

Admission to the Department of Biological Sciences as a Conditionally Classified Graduate Student (7621-051)

An applicant who fails to meet the criteria above for Classified admission to the Department and who falls into one of the following four categories may be considered by the Graduate Studies Committee for admission as Conditionally Classified graduate student:

1. An applicant with course and/or unit deficiencies. The Graduate Studies Committee will determine what deficiencies each applicant has and indicate on the back of the Department Application Form which course(s) the applicant must take to make up those deficiencies. These courses are in addition to the minimum 30 units on the student's Program of Study (see below). The applicant must make up all such deficiencies before attaining Classified status;
2. An applicant with GPA deficiencies. An applicant with an undergraduate GPA in science and math courses between 2.50 and 2.75 and a GPA in the last 40 semester (60 quarter) units of science and math courses between 2.75 and 3.00 may secure admission as a Conditionally Classified graduate student. The applicant must first obtain sponsorship from a Department of Biological Sciences faculty member; this faculty member must indicate in writing to the Graduate Studies Committee willingness to serve as the Chair of the applicant's thesis committee and the reasons why the Graduate Studies Committee should admit the applicant. Thus, an applicant with low GPA must contact potential thesis advisors before the Graduate Studies Committee can consider the application. In addition, an applicant receiving the Conditionally Classified status must complete, with a grade of "A" or "B", three approved courses totaling at least nine units acceptable to the Graduate Studies Committee and the Department Chair before attaining Classified status. These approved courses may appear on the student's Graduate Program of Study. If the applicant receives less than a "B" in any of the three courses, the applicant will be dropped from the M.S. in Biology program. An applicant who fails to meet the GPA criteria for normal, Classified admission, and has an undergraduate GPA in science and mathematics courses of less than 2.50 and a GPA in the last 40 semester (60 quarter) units of science and mathematics courses of less than 2.75 is not eligible for admission to the M.S. in Biology degree program;
3. An applicant who has scored below the 50th percentile on the GRE Subject Test; and
4. An applicant who meets all prerequisites but who does not yet have a Chair for the Thesis Committee. It is the responsibility of the student to obtain a Chair and set up a graduate program by the end of the second semester in residence following admission to the Master of Science program or they will be dropped from the program.

The Program of Study

After admission to the Department as a Classified or Conditionally Classified graduate student, the student in consultation with the Thesis Chair, must establish a Program of Study that includes a program of classes and a thesis proposal. The student and Thesis Committee Chair will select at least two additional members to serve on the student's Thesis Committee.

The Departmental Graduate Advisor serves as an ex-officio member of all thesis committees. Each student must prepare a written thesis proposal for approval by the student's Thesis Committee. The Thesis Committee will meet with the student to determine what courses the student must take and indicate them on the M.S. in Biology Graduate Program Form.

The Program of Study must include six units of Thesis (BIOL 698), one to three units of Directed Research (BIOL 697), one unit of Seminar (MICRO 580 or BIOL 580), BIOL 696, and four units from BIOL 661, 662, 663, 664, 665, 666, MICR 661, or CHEM 595A; BIOL 661-666 and MICR 661 topics must be different. Of the minimum 30 units, no more than six may come from BIOL 661-666, and CHEM 595A; no more than six may come from transfer credit; and no more than one 300-level course may be included.

The Program of Study must be established before the end of the second semester after admission to the Department; in addition, the University Writing Proficiency Examination must be passed and a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or in Biochemistry, Cell, and Molecular Biology must be achieved by this time. Failure to meet these requirements will result in dismissal from the Department's M.S. in Biology program.

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 (7621-053) 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. Achievement of a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. This requirement must be met by the end of the second semester in residence. Normally, students not meeting this requirement will be dropped from the program. Only in cases where English is not the student's native language or if a disability impedes the student's performance, may an alternative be petitioned. In these cases, the Chair of her/his Thesis Committee must petition, in writing, the Graduate Studies Committee to provide an alternate method for meeting this requirement. This petition must provide full documentation of the student's progress to date, professional promise, and a schedule for meeting all degree requirements. If granted, the alternate method will consist of an exam, oral and/or written, in which the student must demonstrate extensive knowledge of the major areas of biology. The exam committee will consist of the Department Graduate Advisor and three faculty members selected by the Graduate Studies Committee. No member of the student's Thesis Committee may serve on this committee; and
3. Establishment of a Thesis Committee and Program of Study (see above). Upon evidence of satisfactory academic progress and passing of the University Writing Proficiency Examination, the Thesis Committee will recommend the student for advancement to candidacy by forwarding its recommendation to the Department

Graduate Advisor. This should occur at least one year before graduation. Upon approval by the Associate Dean for Graduate Accountability, the student will attain the status of Classified graduate standing.

Requirements for 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.

1. Advancement to candidacy (see above);
2. Maintenance of a 3.00 ("B" average), or better, overall graduate grade-point average (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 at the end of the following semester or the student will be dropped from the M.S. in Biology program;
3. Completion of a written thesis and an oral defense of this thesis, followed by a public presentation of the thesis research. The members of the candidate's Thesis Committee must have approved the thesis and the defense before a student may schedule the public presentation. The student may not defend the thesis or give a public presentation during the summer session; and
4. Serve 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 requirements must be completed within 6 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 (code BI-OLMS02)

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.

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 bachelor's degree with a major in microbiology or related fields from an accredited institution that includes the following courses (or their equivalents):
General Microbiology (with laboratory)*, Statistics, Cell or Molecular Biology*, Biochemistry (1 year)*, and two upper division Microbiology Laboratory courses equivalent to

courses in the Department of Biological Sciences, CSULB.

The previous courses marked with * must be completed with a grade of "A" or "B". Applicants shall have completed 24 semester units or their equivalent of upper division courses appropriate for a baccalaureate degree in microbiology or related fields.

2. An undergraduate grade point average in all completed science and mathematics courses of at least 2.70, or a grade point average of at least 3.00 in the last 40 semester (60 quarter) units of science and mathematics courses completed; and
3. The Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology, which must have been taken prior to applying to the Department. Most students who apply with a score less than the 50th percentile on this test will be denied admittance to the Department. The GRE Subject Test must have been taken within 5 years prior to the intended admission date.

A student who does not meet these minimum entrance prerequisites must obtain a faculty sponsor in order to be considered for admittance.

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 no later than 15 March for the fall semester or 15 October for the spring semester to receive consideration for admission:

1. Departmental Application Form, available from the Department's Graduate Office;
2. Official transcripts of all college level academic work including that done at CSULB; these are in addition to those transcripts required for general graduate admission to CSULB;
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential (if applying for a teaching associate position, the letters must refer to the applicant's potential to teach laboratory sections in the biological sciences); and
4. Official report of scores on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. The applicant should have taken this examination well prior to applying to the Department, because the official score must reach the Department by the deadlines above.

These materials must be submitted to the Department's Graduate Office.

Review by the Graduate Studies Committee

The Graduate Studies Committee will review all folders completed by the deadlines and either accept the applicant as a Classified or Conditionally Classified graduate student or deny admission. Acceptance is competitive and the GPA, the GRE Subject Test score, and the letters of recommendation will be weighed in the decision to accept or reject an applicant. All accepted students must contact the Graduate Advisor prior to their initial semester for counsel and orientation.

Admission to the Department of Biological Sciences as a Classified Graduate Student

The Department of Biological Sciences will admit as a Classified graduate student any applicant who:

1. has met all prerequisites;
2. has a complete folder of all required documents; and
3. has obtained acceptance by a faculty member as the Chair of the student's Thesis Committee. The student should then set up a program (see "The Program of Study", below).

Admission to the Department of Biological Sciences as a Conditionally Classified Graduate Student (7654-051)

An applicant who fails to meet the criteria above for Classified admission to the Department and who falls into one of the following three categories may be considered by the Graduate Studies Committee for admission as Conditionally Classified graduate student:

1. An applicant with course and/or unit deficiencies. The Graduate Studies Committee will determine what deficiencies each applicant has and indicate on the back of the Department Application Form which course(s) the applicant must take to make up those deficiencies. These courses are in addition to the minimum 30 units on the student's Program of Study (see below). The applicant must make up all such deficiencies before attaining Classified status;
2. An applicant with GPA deficiencies. An applicant with an undergraduate GPA in science and mathematics courses between 2.50 and 2.75 and a GPA in the last 40 semester (60 quarter) units of science and mathematics courses between 2.75 and 3.00 may secure admission as a Conditionally Classified graduate student. The applicant must first obtain sponsorship from a Department of Biological Sciences faculty member; this faculty member must indicate in writing to the Graduate Studies Committee willingness to serve as the Chair of the applicant's thesis committee and the reasons why the Graduate Studies Committee should admit the applicant. Thus, applicants with a low GPA must contact potential thesis advisors before the Graduate Studies Committee can consider the application. In addition, an applicant receiving the Conditionally Classified status must complete, with a grade of "A" or "B", three approved courses totaling at least nine units acceptable to the Graduate Studies Committee and the Department Chair before attaining Classified status. These approved courses may appear on the student's Graduate Program of Study. If the applicant receives less than a "B" in any of the three courses, the applicant will be dropped from the M.S. in Microbiology program. An applicant who fails to meet the GPA criteria for normal, Classified admission and has either an undergraduate GPA in science and mathematics courses of less than 2.50 or a GPA in the last 40 semester (60 quarter) units of science and mathematics courses of less than 2.75 is not eligible for admission to the M.S. in Microbiology degree program.
3. An applicant who has scored below the 50th percentile on the GRE Subject Test; and
4. An applicant who meets all prerequisites but who does not yet have a Chair for the Thesis Committee. It is the responsibility of the student to obtain a Chair and set up a

graduate program by the end of the second semester in residence following admission to the Master of Science program or they will be dropped from the program.

The Program of Study

After admission to the Department as a Classified or Conditionally Classified graduate student, the student, in consultation with the Thesis Chair, must establish a Program of Study that includes the program of classes and a thesis proposal. The student and Thesis Committee Chair will select at least two additional members to serve on the student's Thesis Committee. The Departmental Graduate Advisor serves as an ex-officio member of all thesis committees. Each student must prepare a written thesis proposal for approval by the student's Thesis Committee. The Thesis Committee will meet with the student to determine what courses the student must take and indicate them on the M.S. in Microbiology Graduate Program Form.

The Program of Study will include the completion of a minimum of 30 semester units. At least 20 of these units must be in the 500-600 level courses of which a minimum of 16 units must be in the Microbiology 500-600 series. Required courses, if not taken previously, include: MICR 450 or an upper division/graduate course in genetics; MICR 471 or an upper division/graduate course in cell physiology; MICR 661 (two enrollments with different topics for a total of 4 units is required); BIOL 696, MICR 697 (maximum of 3 units); and MICR 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 300-level courses may be included.

The Program of Study must be established before the end of the second semester after admission to the Department; in addition, the University Writing Proficiency Examination must be passed and a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or in Biochemistry, Cell, and Molecular Biology must be achieved by this time. Failure to meet these requirements will result in dismissal from the Department's M.S. in Microbiology program.

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 (7654-053) 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. Achievement of a score at, or above, the 50th percentile on the Graduate Record Examination Subject Test in Biology or the Subject Test in Biochemistry, Cell, and Molecular Biology. This requirement must be met by the end of the second semester in residence. Normally, students not meeting this requirement will be dropped from the program. Only in cases where English is not the student's native language or if a disability impedes the student's performance may an alternative be petitioned. In these cases, the Chair of her/his Thesis Committee must petition, in writing, the Graduate Studies Committee to provide an

alternate method for meeting this requirement. This petition must provide full documentation of the student's progress to date, professional promise, and a schedule for meeting all degree requirements. If granted, the alternate method will consist of an exam, oral and/or written, in which the student must demonstrate extensive knowledge of the subject areas covered in the appropriate GRE Subject Test. The exam committee will consist of the Department Graduate Advisor and three faculty members selected by the Graduate Studies Committee. No member of the student's Thesis Committee may serve on this committee; and

3. Establishment of a Thesis Committee and Program of Study (see above). Upon evidence of satisfactory progress and passing of the University Writing Proficiency Examination, the Thesis Committee may recommend the student for advancement to candidacy by forwarding its recommendation to the Department Graduate Advisor, Department Chair, and Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics. This should occur at least one year before graduation. Upon approval by the Associate Dean, the student will attain the status of Classified graduate standing.

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.

1. Advancement to candidacy (see above);
2. Maintenance of a 3.00 ("B" average), or better, overall graduate grade point average (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 at the end of the following semester or the student will be dropped from the M.S. in Microbiology program;
3. Completion of a written thesis and an oral defense of this thesis, followed by a public presentation of the thesis research. The members of the candidate's Thesis Committee must have approved the thesis and the defense before a student may schedule the public presentation. The student may not defend the thesis or give a public presentation during the summer session; and
4. Serve 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 requirements must be completed within 6 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.

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). Courses with an asterisk may be used in graduate programs.

Lower Division

100.## Biology of the Human Environment (3) F,S

Prerequisites: Completion of or concurrent enrollment in a course that fulfills one of the Foundation requirements in GE. Biological perspective on the interaction between humans and their environment. Specifically designed for non-science majors. (Lecture 3 hrs.)

110H. Ideas in the Biological Sciences – Honors (1)

Prerequisites: Consent of instructor. An examination of the historical roots of the biological and biochemical sciences. Through readings and discussions, participants will become acquainted with the people and discoveries that have advanced the state of biological sciences. Historical context, importance, and the scientific and social consequences of these discoveries will be examined. Introduction to research faculty in the Departments of Biological Sciences and Chemistry/Biochemistry. (Discussion 1 hr.)

153. Introduction to Marine Biology (3) F,S

Prerequisites: Completion of or concurrent enrollment in 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. Not open to students with a "C" or better in BIOL 201. A course fee may be required.

200.## General Biology (4) F,S

Prerequisite: Completion of GE Foundation requirements. A brief survey of the major areas of biology including cell biology, genetics, evolution, phylogeny, plant and animal anatomy and physiology, ecology, and behavior. Specifically designed for non-science majors. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

200L.## General Biology Laboratory (1) F,S

Prerequisites: Completion at another institution of coursework deemed equivalent to the lecture component only of BIOL 200 and consent of Department. 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 enrollment to students with credit for BIOL 200. (Laboratory 3 hrs.) A course fee may be required.

204.## Essentials of Pharmacology (2) F,S

Prerequisites: BIOL 207. A 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 to students with a "C" or better in A/P 206. (Lecture 2 hrs.)

205.## Human Biology (4) F,S

Prerequisites: Completion of GE Foundation requirements. A 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. Specifically designed for non-science majors. Not open to students with a "C" or better in A/P 107 or 205. (Lecture 3 hrs., laboratory 3 hrs.) A course fee may be required.

207.## Human Physiology (4) F,S

Prerequisites: Completion of 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. Not open to students with a "C" or better in A/P 207 or 209. (Lecture 3 hrs., laboratory 3 hrs.) A course fee may be required. (CAN BIOL 12)

208.## Human Anatomy (4) F,S

Prerequisites: Completion of the GE Foundation requirements. The gross anatomy, histology, and neuroanatomy of the human body. Designed for majors in physical education and the allied health fields. Not open to students with a "C" or better in A/P 208 or 202. (Lecture 3 hrs., laboratory 3 hrs.) A course fee may be required.

211A. Biological Sciences I (5) F,S

Prerequisite: CHEM 111A with a grade of "C" or better and completion of GE Foundation requirements. Prerequisite or corequisite: CHEM 111B. An introduction to cellular and molecular principles common to all life forms including biological macromolecules, cell structure, metabolism, genetics, and molecular biology. Also includes microbiology of prokaryotes and the origin of life. (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required. (BIOL 211A+211B, CAN BIOL SEQ A.)

211B. Biological Sciences II (5) F,S

Prerequisites: BIOL 211A, CHEM 111B with a grade of "C" or better. The second of a two-semester introductory sequence designed for biological science majors. An introduction to organismal biology, including the diversity, structure, and function of protists, fungi, plants, and animals. Also includes the principles of evolution, ecology, and animal behavior. (Lecture 3 hrs, laboratory 6 hrs.) Course fee may be required. (BIOL 211A+211B, CAN BIOL SEQ A)

211C. Biological Sciences Laboratory I (2) F,S

Prerequisites: Completion at another accredited institution of coursework equivalent to the lecture component only of BIOL 211A and consent of Department. BIOL 211C is identical to the laboratory component of BIOL 211A. Students enrolled in BIOL 211C will take it in the same room and at the same time as students enrolled in BIOL 211A. Not open for enrollment for students with credit for BIOL 211A. (Laboratory 6 hrs.) A course fee may be required.

211D. Biological Sciences Laboratory II (2) F,S

Prerequisites: Completion at another accredited institution of coursework equivalent to the lecture component only of BIOL 211B and consent of Department. BIOL 211D is identical to the laboratory component of BIOL 211B. Students enrolled in BIOL 211D will take it in the same room and at the same time as students enrolled in BIOL 211B. Not open for enrollment for students with credit for BIOL 211B. (Laboratory 6 hrs.) A course fee may be required.

220H. Fundamentals of Bioinformatics – Honors (2)

Prerequisites: BIOL 211A and consent of instructor. Introduction to the scope and use of biological information databases including protein and nucleotide sequences and molecular structure databases as well as literature databases. Basic methods of comparison of DNA and protein sequences including sequence alignment, analysis of 3-D structures, and phylogenetic analysis. Fundamentals of DNA sequencing and genetic survey techniques including genotyping of nuclear and mitochondrial DNA variation. (Lecture 1 hr., laboratory 3 hrs.) Course fee may be required.

260. Biostatistics (3)

Prerequisites: BIOL 211A or BIOL 207 or MICR 200; MATH 112 or 117 or 119A or 122. Use of probability and statistics in the description and analysis of biological data. (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

Upper Division

303.## Coastal Systems and Human Impacts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; BIOL 153 or 200 or 211B; GEOL 102 or 160. Defines and describes natural processes impacting human activities in the coastal zone

and how human practices influence natural processes. Topics include global warming, sea level rise, El Nino, port development, ocean outfalls and water quality, fisheries, and coastal erosion. Same course as GEOL 303. (Lecture 3 hrs.)

304.## Pathophysiology (3) F,S

Prerequisites: BIOL 207, 208; CHEM 302; MICR 200. 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. Not open to students with a "C" or better in A/P 305. (Lecture 3 hrs.)

306.## Human Prosection (3) F, odd years

Prerequisites: BIOL 208 or 332 and consent of instructor. Detailed regional dissection of the human body with emphasis on dissection techniques. Not open to students with a "C" or better in A/P 306 or 336. (Lecture 1 hr., laboratory 6 hrs.) A course fee may be required.

309I.## Human Body and Mind (3) S

Prerequisites: Completion of the GE Foundation, the B.1.a. requirement in GE (life science with laboratory), and upper-division standing. A course designed to facilitate understanding of the human being as an integrated physiological and psychological entity. It presents clear and simple explanations of various aspects of human body function and explores the interaction between body and mind in physiological and psychological terms. Also explores and evaluates the methodology and the results of scientific research that support the concept of mind-body connections. Not open to students with a "C" or better in A/P 308I. (Lecture 3 hrs.)

*312. Evolutionary Biology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better, 260. A general survey of the various areas of evolutionary biology including but not limited to population genetics, speciation, origin of life, and phylogenetic analysis. Main emphasis is on evolutionary mechanisms and methods of analysis with some emphasis on specific details of the evolutionary history of life. (Lecture 3 hrs.)

*313. Invertebrate Zoology (4) F,S

Prerequisite: BIOL 211A,B with grade of "C" or better. Basic taxonomy, morphology, ecology, and distribution of the invertebrates. Protozoa through Arthropoda, excluding Insecta, but including Protochordates; emphasis on local marine forms. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

*316. General Entomology (4) F,S

Prerequisites: BIOL 211A,B with grade of "C" or better. Characteristics, structure, habits, and life cycles of insects; the importance of insects to humans and other organisms. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

*324. Vertebrate Zoology (4) F,S

Prerequisite: BIOL 211A,B with grade of "C" or better. An evolutionary and systematic survey of the living vertebrates. Emphasis on the phylogenetic origin and the morphological and physiological adaptations of the major groups. Not open for major credit if more than one of the following courses has been previously taken; BIOL 419, 421 or 423. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

328. Plants and Human Affairs (3)

Prerequisites: BIOL 211A,B with grade of "C" or better. Economic and social role of plants and plant products in our civilization from a botanical perspective. Emphasis on the origins, methods of processing and uses of plants. (Lecture 3 hrs.)

*332. Comparative Vertebrate Morphology (4)

Prerequisites: BIOL 211A, B with grade of "C" or better. Evolutionary history of vertebrate structure. Lecture emphasizes primarily gross adult structure and secondarily embryonic origin and microanatomy. Laboratory focuses on comparative anatomy of shark, salamander, and mammal. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

Biology Courses (BIOL)

*340. Molecular Cell Biology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better; CHEM 320A or 327. Detailed study of the organization and functioning of cells and cellular organelles at the molecular level; emphasis on experimental approaches and structural/functional relationships. Individual research paper on a current aspect of cellular/molecular biology required. (Lecture 3 hrs.)

340L. Molecular Cell Biology Laboratory (3) F

Prerequisites: BIOL 340, 370, both with a grade of "C" or better. (Preference given to students in the Bachelor of Science in Biology, Option in Cell and Molecular Biology.) An intensive course of modern laboratory techniques used in both cell and molecular biology. Topics include genomics, subcellular structure and transport, and purification and functional characterization of recombinant proteins. This class will provide extensive laboratory experience for students. (Lecture 1 hr., laboratory 6 hrs.) Course fee may be required.

*341. Physiology for Therapists I (4) F,S

Prerequisites: BIOL 211A, B; CHEM 111A, B; PHYS 100A, 100B; 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 the physiological body systems with emphasis on the nervous and endocrine systems and skeletal and smooth muscle. Pathological and clinical considerations will also be presented. Not open to students with a "C" or better in A/P 341 or 307. (Lecture 3 hrs., laboratory 3 hrs.) A course fee may be required.

*342. Mammalian Physiology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better. Recommended: PHYS 100A-B. A course dealing with the function of the various mammalian body systems, especially of humans. Emphasis will be placed on the integration of homeostatic mechanisms of the nervous, muscular, endocrine, cardiovascular, respiratory, renal, digestive, and reproductive systems. Not open to students with a "C" or better in A/P 342. (Lecture 3 hrs.)

*342L. Laboratory in Physiology (1) F,S

Prerequisites: BIOL 342 (may be taken concurrently.) Experiments and exercises designed to provide laboratory experience in, and illustration of, physiological principles and mechanisms of interaction among the various body systems. Not open to students with a "C" or better in A/P 342L. (Laboratory 3 hrs.) A course fee may be required.

*345. Comparative Animal Physiology (3) F,S

Prerequisites: BIOL 211A,B with a grade of "C" or better. Comparison of the fundamental physiological processes of the major animal phyla. Not open to students with a "C" or better in A/P 340. (Lecture 3 hrs.)

*345L. Laboratory in Comparative Animal Physiology (1) F,S

Prerequisites: BIOL 345 (may be taken concurrently.) Laboratory course designed to acquaint students with direct observation and measurement of physiological processes in various animal groups, both invertebrate and vertebrate. Not open to students with a "C" or better in A/P 340L. (Laboratory 3 hrs.) A course fee may be required.

*350. General Ecology (3) F,S

Prerequisite: BIOL 211A,B with grade of "C" or better, 260; MATH 112 or 117 or 119A or 122. Chemistry and physics recommended. Relationships of plants and animals to their physical and biological environment; structure and function of populations, communities and ecosystems. (Lecture 3 hrs., and two required Saturday field trips.)

*351. Animal Behavior (4)

Prerequisites: BIOL 211A,B, 260, all with grade of "C" or better. Introduction to vertebrate and invertebrate ethology; innate and learned behavior, sensory adaptation and communication, activity rhythms, navigation and migration, predator-prey interactions, and social behaviors including aggression, courtship, and mating. Emphasis on ecological and evolutionary aspects. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

*353. Marine Biology (3) F

Prerequisites: BIOL 153, both 211A,B with grade of "C" or better, and 260. Study of pelagic and benthic marine ecosystems, including topics of food resources, mariculture, and pollution. Weekend field trips may be required. (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

370. General Genetics (4) F,S

Prerequisites: BIOL 211A,B with grades of "C" or better and either BIOL 260 or CHEM 441B. Detailed study of classical transmission genetics and an introduction to modern molecular genetics. Included will be current observations and concepts of the nature, organization, function and regulation of the expression of genetic material. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

401.## Biology of Human Aging (3)

Prerequisites: BIOL 200 or 205 or 207. Biological processes associated with aging in humans. Emphasis on both cellular and organ aging. Not designed for majors in the College of Natural Sciences and Mathematics. Not open to students with a "C" or better in A/P 401. (Lecture 3 hrs.)

413./513. Marine Zooplankton (4) S, even years

Prerequisites: BIOL 353. (Undergraduates register in BIOL 413; graduates register in BIOL 513.) Diversity, natural history, taxonomy, and identification of marine zooplankton, including ichthyoplankton. Emphasis on fauna of the California coast. (Lecture 2 hrs., laboratory and field 6 hrs.)

414./514. Marine Ornithology (3)

Prerequisites: BIOL 153, either BIOL 350 or 353. (Undergraduates enroll in BIOL 414; graduates enroll in BIOL 514.) Designed to familiarize marine biology students with the role of birds in the marine environment. Topics include ecology, distribution, behavior, and identification of marine birds. Library report, independent field project, and attendance on field trips required. (Lecture 1 hr., laboratory and field 6 hrs.) Course fee may be required.

*419. Ichthyology (3) F

Prerequisites: BIOL 211A, B, 260, and at least six additional units of upper division biological science, all with a grade of "C" or better. Recommended: BIOL 350, 353, and 370. Systematics, morphology, genetics, and ecology of fishes. Emphasis on local marine forms. (Lecture 2 hrs., laboratory 3 hrs., weekend field trips may be required.) A course fee may be required.

420./520. Advanced Ichthyology (3) S

Prerequisites: BIOL 260, 350, 370, and 419. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.) Advanced aspects of distribution, systematics, physiology, adaptation, and life history of fishes; emphasis on state-of-art field/laboratory techniques and contemporary concepts. (Lecture 2 hrs., laboratory and field 3 hrs.; weekend field trips may be required.) A course fee may be required.

*421. Herpetology (3) S, odd years

Prerequisites: BIOL 211A, B, 260, with grades of "C" or better, and eight units of upper division biology. Taxonomy, natural history, ecology and distribution of amphibians and reptiles, emphasis on local forms. Weekend field trip required. (Lecture 2 hrs., laboratory and field 3 hrs.)

*423. Mammalogy (3) F, even years

Prerequisites: BIOL 260, either 324 or 332, and one of 312, 350, or 351, all with grades of "C" or better. Phylogenetic survey of the living mammals of the world. Lecture emphasizes the radiation of the orders and families and their morphology, physiology, and behavior; laboratory emphasizes external and skeletal morphology of these same taxa and identification of California species. (Lecture 2 hrs., laboratory 3 hrs.)

*424. Ornithology (3) S, even years

Prerequisites: BIOL 211A,B with grade of "C" or better and eight units of upper division biology. Morphology, physiology, taxonomy, ecology and behavior of birds; emphasis on laboratory and field study of adaptations of local forms. (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

*425. Phycology (3) F

Prerequisites: BIOL 153, 211A, B with a grade of "C" or better. Taxonomy, phylogeny, and physiology of algae, including the physiologi-

cal ecology of marine macroalgae; emphasis on local marine forms. (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

***427. Taxonomy of Vascular Plants (4) S**

Prerequisite: BIOL 211A,B with grade of "C" or better. Principles and methods of vascular plant systematics, including history, nomenclature and phylogeny; emphasis in the laboratory is on the identification and classification of native and introduced plants of Southern California. (Lecture 2 hrs., laboratory and field 6 hrs.)

428./528. Biology of the Giant Kelp (3) S

Prerequisites: BIOL 353, 425, or 439 with a grade of "C" or better. (Undergraduates register in BIOL 428; graduates register in BIOL 528.) A study of the physiology, reproductive biology, anatomy, taxonomy, and ecology of the ecologically and economically important kelp genus *Macrocystis*. (Lecture 3 hrs.)

433./533. Developmental Biology (3) S

Prerequisites: BIOL 370; CHEM 320A,B. (Undergraduates register in BIOL 433; graduates register in BIOL 533.) Presentation of current topics and experimental approaches in cell differentiation and development with emphasis on examination of these processes at the molecular level. Topics include gametogenesis, fertilization, differential gene expression, and role of oncogenes in development. (Lecture/discussion 3 hrs.)

***439. Plant Morphology (4) F**

Prerequisite: BIOL 211A,B with grade of "C" or better. Comparative structure, life history and phylogenetic relationships of plants. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required.

440./540. Advanced Molecular Cell Biology (3) F

Prerequisites: BIOL 340 and either BIOL 370 or CHEM 441B, each with a grade of "C" or better. (Undergraduates register in BIOL 440; graduates register in BIOL 540.) In depth discussion of cellular processes and their regulation. Topics may include intracellular targeting and transport of macromolecules, cell cycle control, and oncogenesis. The course includes critical discussion of primary journal articles on pertinent topics. (Lecture 3 hrs.)

***441. Physiology for Therapists II (3) F,S**

Prerequisites: BIOL 341. Mechanisms of action and interaction of the physiological body systems with emphasis on the cardiovascular, renal, and respiratory systems. Pathological and clinical considerations will also be presented. Not open to students with a "C" or better in A/P 441. (Lecture 3 hrs.)

442./542. Neurophysiology (3)

Prerequisites: PHYS 100A,B; BIOL 342, 345. (Undergraduates register in BIOL 442; graduates register in BIOL 542.) Study of the mechanisms by which excitable cells function and of the sensory, motor, and integrative systems in which they participate. Representative examples will be selected from vertebrate and invertebrate phyla. Not open to students with a "C" or better in A/P 442/542. (Lecture 3 hrs.)

443./543. Endocrinology (3) S

Prerequisites: BIOL 340 or CHEM 441B; CHEM 320A or 327; and one of BIOL 341, 342, 345, 445, 448, 545, 548, CHEM 441A, or 448. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.) Role of the endocrines in vertebrate and invertebrate adjustment to changes in the internal and external environment. (Lecture 3 hrs.)

445./545. Metabolic Regulation (3) F

Prerequisites: CHEM 441B or BIOL 443/543. (Undergraduates register in BIOL 445; graduates register 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 their role in the regulation of some key enzymes of carbohydrate, fat, and protein metabolism. Not open to students with a "C" or better in A/P 445/545. (Lecture 3 hrs.)

446./546. Respiratory and Renal Physiology (3) F

Prerequisites: BIOL 342 or 345; PHYS 100A,B. (Undergraduates register in BIOL 446; graduates register in BIOL 546.) Functions of and interactions between the respiratory and renal systems of mammals. Not open to students with a "C" or better in A/P 446/546. (Lecture 3 hrs.)

447./547. Molecular Plant Physiology (3) S

Prerequisites: BIOL 340, 370, both with grade of "C" or better. (Undergraduates enroll in BIOL 447; graduates enroll in BIOL 547.) Current molecular approaches to classical topics including plant hormones, photosynthesis, resistance to plant pathogens, adaptation of plants to environmental stress, and development of plants. (Lecture 3 hrs.)

448./548. Cell and Molecular Neurobiology (3) S

Prerequisites: BIOL 340 or CHEM 441B and one of BIOL 341, 342, or 345. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.) Study of the molecular, cellular, and developmental principles that underlie the functioning of the nervous system in the control of physiological and behavioral processes. Focus on mechanisms of electrical signaling and principles of synaptic biochemistry, development, and plasticity. (Lecture 3 hrs.)

450./550. Plant Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. Recommended: BIOL 427, 447. (Undergraduates register in BIOL 450; graduates register in BIOL 549.) Relationship of plants to their environment and principles of plant distribution. (Lecture 2 hrs., laboratory and field 3 hrs.) A course fee may be required.

451./551. Wetlands and Mangrove Ecology (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 451; graduates register in BIOL 551.) Concepts of wetlands and mangrove ecology in relation to the general ecological processes that shape different types of wetland ecosystems. Physical and biogeochemical conditions, biological characteristics, specific players, and their interactions. Descriptions of specific coastal and inland wetland ecosystems: geomorphology, geochemistry, ecosystem structure, and function, and models. Included will be wetland management goals and concepts, and current approaches and practices in the U.S. and the world. Lecture time may be used for field trips, two of which will extend beyond standard lecture time. (Lecture 3 hrs.)

452./552. Behavioral Ecology (3) S

Prerequisites: BIOL 312 or 350 or 351. Undergraduates register in BIOL 452; graduates register in BIOL 552.) Detailed study of how behavior contributes to reproductive success and survival. Emphasis given to theoretical background, ecological setting, and evolutionary consequences of behavior, including both empirical and experimental studies. (Lecture/discussion 3 hrs.)

***453. Insect Ecology (3) F, even years**

Prerequisites: BIOL 316, 350 with grades of "C" or better. Field and experimental studies of abundance dispersal, distribution, and behavior. (Lecture 2 hrs., laboratory and field 3 hrs.) Course fee may be required.

454A./554A. Research in Tropical Marine Ecology (2) S, even years

Prerequisites: BIOL 260, either 350 or 353, and 313 or 413 or 419 or 425 and consent of instructor. (Undergraduates register in BIOL 454A; graduates register 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. An eight-day field trip to Hawaii will be required during the spring recess at student expense. Enrollment is limited. (Lecture 1 hr., 8 day field trip.)

454B./554B. Research in Tropical Terrestrial Ecology (3) S, odd years

Prerequisites: BIOL 350; one of BIOL 316, 324, 421, 424, 427, or 439; and consent of instructor. (Undergraduates register in BIOL 454B; graduates register in BIOL 554B.) Field based comparison of a tropical lowland deciduous forest and a tropical lowland rain-forest incorporating basic methodology in ecology. Forest structure and diversity of arthropods, birds, mammals, reptiles, and amphibians will be emphasized. Students will be required to maintain a field notebook, submit a final paper, and give an oral presentation. A nine-day field trip to Costa Rica is required during spring recess at student expense. Enrollment is limited. (Lecture 2 hr., 9 day field trip.)

Biology Courses (BIOL)

455./555. Ecology of Marine Communities (3) F

Prerequisites: BIOL 260, 350, 353. (Undergraduates register in BIOL 455; graduates register in BIOL 555.) Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and two class projects. (Lecture 2 hrs., field 3 hrs.)

456./556. Population Ecology (3) S, even years

Prerequisites: BIOL 350, MATH 119B or 123. (Undergraduates register in BIOL 456; graduates in BIOL 556.) Analysis of characteristics of animal and plant populations including population growth and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; population fluctuations; spatial patterns. (Lecture 3 hrs.)

457./557. Field Methods in Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 457; graduates in BIOL 557.) Design of field research projects, collection and analysis of data, writing and presentation of reports. Emphasis on field sampling techniques. Five weekend field trips required. (Lecture 2 hrs., laboratory and field 3 hrs.)

458./558. Ecology of Marine Plankton (4) S, odd years

Prerequisites: BIOL 260, 353; CHEM 327 or 320A,B; MATH 119A or 122. (Undergraduates register in BIOL 458; graduates in BIOL 558.) Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities. (Lecture 3 hrs., laboratory and field 3 hrs.) Course fee may be required.

459./559. Conservation Biology (3) F

Prerequisites: BIOL 260, 350. Recommended: BIOL 370. (Undergraduates register in BIOL 459; graduates register in BIOL 559.) Central concepts in conservation biology including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, patterns of biological diversity, habitat fragmentation, reserve design, and landscape-level conservation. Lecture will include group discussions of relevant primary literature. (Lecture 3 hrs., two weekend field trips may be required.)

463./563. Computer Modelling in Biology (4) F

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 463; graduates register in BIOL 563.) History, modelling theory, different modelling approaches, theoretical, empirical, and quantitative modelling. Laboratory will use modelling software and focus on model construction and quantitative simulation, possibly of student's own research project. Applicable to ecology, microbiology, physiology, environmental sciences, etc. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

*464. Aquatic Toxicology (3) S

Prerequisites: BIOL 211A,B, 340; CHEM 320A or 327, all with grade of "C" or better. BIOL 353 and CHEM 448 or 441A,B recommended. An in depth study of the interactions between anthropogenic chemicals and aquatic ecosystems. Topics include the origin, fate, chemical and biological detection, and quantification of pollutants and their impact at the molecular, biochemical, cellular, physiological, organismal, and community levels of organization. Individual research project required. (Lecture 3 hrs.)

465./565. Experimental Design and Regression Analysis (4) F, even years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates register in BIOL 465; graduates register in BIOL 565.) Techniques in experimental design and data analysis applied to problems in biology. Topics include analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Laboratory experience in analyzing biological data with computerized statistical packages. (Lecture 3 hrs., laboratory 3 hrs.)

466H. Research Design and Methods – Honors (3) S

Prerequisites: BIOL 211A, B, either BIOL 260 or CHEM 251, CHEM 320A, B, all with a grade of "C" or better, completion of the GE Foundation, and consent of instructor. A rigorous introduction to

the following: i) hypothesis testing, experimental design, and regression modeling of biological data; ii) methodological and technical procedures for experimentation; and iii) techniques for written and oral presentation of research results to prepare students for undergraduate research. Research paper and oral presentation required. Same course as CHEM 466H. (Lecture 3 hours).

467./567. Multivariate Data Analysis (4) F, odd years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates register in BIOL 467; graduates register in BIOL 567.) Multivariate data analysis techniques applied to biological data. Applied matrix algebra as needed for analyzing and understanding multivariate analysis methods. Topics covered include principal components analysis, factor analysis, discriminant analysis, cluster analysis as well as modern phylogenetic analysis techniques. Laboratory experience in analyzing multivariate biological data with computerized statistical packages. (Lecture 3 hrs., laboratory 3 hrs.)

473./573. Molecular Genetics (3) S

Prerequisite: BIOL 370. CHEM 327 or 320A,B. (Undergraduates register in BIOL 473; graduates register in BIOL 573.) Nature, replication, regulation and mode of action of the genetic material. (Lecture 3 hrs.)

477./577. Biotechnology: Applications of Molecular Techniques and Bioinformatics (3) F

Prerequisites: BIOL 370; CHEM 441A, B; (all with a "C" or better); consent of instructor. (Undergraduates register in BIOL 477; graduates register in BIOL 577.) Intensive study of the theory and techniques involved in the isolation, amplification, and analysis of genes, genomes, transcripts, and proteins. Includes identification and isolation of genes by hybridization or complementation, analysis of gene expression, and detailed study of how DNAs, RNAs, and proteins are characterized. Data-mining (generating hypotheses concerning the structure or function of a gene or protein by identifying similar sequences in better characterized model organisms), the use of homologs for experimental design and/or function analysis, the use of computers in experimental design, the current use of microarrays, and the future use of nanotechnology are also explored. (Lecture 3 hrs.) Letter grade only (A-F)

480./580. Seminars (1) F,S

Prerequisites: BIOL 211A,B with grade of "C" or better. (Undergraduates register in BIOL 480; graduates register in BIOL 580.) Weekly meetings at which professional biologists present the results of their research. Requires participation in the organization and the critical evaluation of these presentations. May not be repeated for credit towards any single degree. (Seminar 1 hr.)

490./590. Special Topics in Biology (1-3)

Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates register in BIOL 490; graduates register in BIOL 590.) Topics from selected areas of biology. Course content will vary from section to section. May be repeated for a maximum of six units with different topics. Topics may be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

490L./590L. Special Topics Laboratory in Biology (1-2)

Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates register in BIOL 490L; graduates register in BIOL 590L.) Topics from selected areas of biology. Course content will vary from section to section. May be repeated for a maximum of four units with different topics. Topics may be announced in the *Schedule of Classes*. (Laboratory 3 or 6 hrs.) A course fee may be required.

495. Instruction in Laboratory Teaching (1-2) F,S

Prerequisites: Consent of lecture instructor, a "B" or better 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 2.75. Individual instruction in the organization and techniques of teaching a biology laboratory. May be repeated for a letter grade and degree credit to a maximum of two units for any single degree or option. 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. (Conference 1 hr., laboratory 3 hrs. per unit.) Same course as MICR 495. Course may be repeated to a maximum of 2 units.

496. Undergraduate Directed Research (1-3) F,S

Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. Research in a specific topic in the biological sciences to be approved and directed by a faculty member in the 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. Any units beyond the three taken for a letter grade in BIOL 496 or MICR 496, or any combination of the two, will be taken credit/no credit. Not available to graduate students. (Conference 1 hr., laboratory 3 hrs. per unit.) Same course as MICR 496.

498H. Senior Thesis – Honors (3)

Prerequisites: At least one unit of BIOL 496 and consent of instructor. Planning, preparation, completion, and oral presentation of a written thesis based on a research project in the biological sciences begun in BIOL/MICR 496. Not available to graduate students.

Graduate Level**513./413. Marine Zooplankton (4) S, even years**

Prerequisites: BIOL 353. (Undergraduates register in BIOL 413; graduates register in BIOL 513.) Diversity, natural history, taxonomy, and identification of marine zooplankton, including ichthyoplankton. Emphasis on fauna of the California coast. (Lecture 2 hrs., laboratory and field 6 hrs.)

514./414. Marine Ornithology (3) F

Prerequisites: BIOL 153, either BIOL 350 or 353. (Undergraduates enroll in BIOL 414; graduates enroll in BIOL 514.) Designed to familiarize marine biology students with the role of birds in the marine environment. Topics include ecology, distribution, behavior, and identification of marine birds. Library report, independent field project, and attendance on field trips required. (Lecture 1 hr., laboratory and field 6 hrs.) Course fee may be required.

520./420. Advanced Ichthyology (3) S

Prerequisites: BIOL 260, 350, 370, and 419. (Undergraduates enroll in BIOL 420; graduates enroll in BIOL 520.) Advanced aspects of distribution, systematics, physiology, adaptation, and life history of fishes; emphasis on state-of-art field/laboratory techniques and contemporary concepts. (Lecture 2 hrs., laboratory and field 3 hrs.; weekend field trips may be required.) A course fee may be required.

528./428. Biology of the Giant Kelp (3) S

Prerequisites: BIOL 353, 425, or 439 with a grade of "C" or better. (Undergraduates register in BIOL 428; graduates register in BIOL 528.) A study of the physiology, reproductive biology, anatomy, taxonomy, and ecology of the ecologically and economically important kelp genus *Macrocystis*. (Lecture 3 hrs.)

533./433. Developmental Biology (3)

Prerequisites: BIOL 370; CHEM 320A,B. (Undergraduates register in BIOL 433; graduates register in BIOL 533.) Presentation of current topics and experimental approaches in cell differentiation and development with emphasis on examination of these processes at the molecular level. Topics include gametogenesis, fertilization, differential gene expression, and role of oncogenes in development. (Lecture/discussion 3 hrs.)

540./440. Advanced Molecular Cell Biology (3) F

Prerequisites: BIOL 340 and either BIOL 370 or CHEM 441B, each with a grade of "C" or better. (Undergraduates register in BIOL 440; graduates register in BIOL 540.) In depth discussion of cellular processes and their regulation. Topics may include intracellular targeting and transport of macromolecules, cell cycle control, and oncogenesis. The course includes critical discussion of primary journal articles on pertinent topics. (Lecture 3 hrs.)

542./442. Neurophysiology (3) F

Prerequisites: PHYS 100A,B; BIOL 342, 345. (Undergraduates register in BIOL 442; graduates register in BIOL 542.) Study of the mechanisms by which excitable cells function and of the sensory, motor, and integrative systems in which they participate. Representative examples will be selected from vertebrate and invertebrate phyla. Not open to students with a "C" or better in A/P 442/542. (Lecture 3 hrs.)

543./443. Endocrinology (3) S

Prerequisites: BIOL 340 or CHEM 441B; CHEM 320A or 327; and one of BIOL 341, 342, 345, 445, 448, 545, 548, CHEM 441A, or 448. (Undergraduates enroll in BIOL 443; graduates enroll in BIOL 543.) Role of the endocrines in vertebrate and invertebrate adjustment to changes in the internal and external environment. (Lecture 3 hrs.)

545./445. Metabolic Regulation (3) F

Prerequisites: CHEM 441B or BIOL 443/543. (Undergraduates register in BIOL 445; graduates register 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 their role in the regulation of some key enzymes of carbohydrate, fat, and protein metabolism. Not open to students with a "C" or better in A/P 445/545. (Lecture 3 hrs.)

546./446. Respiratory and Renal Physiology (3) F

Prerequisites: BIOL 342 or 345; PHYS 100A,B. (Undergraduates register in BIOL 446; graduates register in BIOL 546.) Functions of and interactions between the respiratory and renal systems of mammals. Not open to students with a "C" or better in A/P 446/546. (Lecture 3 hrs.)

547./447. Molecular Plant Physiology (3) S

Prerequisites: BIOL 340, 370, both with grade of "C" or better. (Undergraduates enroll in BIOL 447; graduates enroll in BIOL 547.) Current molecular approaches to classical topics including plant hormones, photosynthesis, resistance to plant pathogens, adaptation of plants to environmental stress, and development of plants. (Lecture 3 hrs.)

548./448. Cell and Molecular Neurobiology (3) S

Prerequisites: BIOL 340 or CHEM 441B and one of BIOL 341, 342, or 345. (Undergraduates enroll in BIOL 448; graduates enroll in BIOL 548.) Study of the molecular, cellular, and developmental principles that underlie the functioning of the nervous system in the control of physiological and behavioral processes. Focus on mechanisms of electrical signaling and principles of synaptic biochemistry, development, and plasticity. (Lecture 3 hrs.)

550./450. Plant Ecology (3)

Prerequisites: BIOL 260, 350. Recommended: BIOL 427, 447. (Undergraduates register in BIOL 450; graduates register in BIOL 549.) Relationship of plants to their environment and principles of plant distribution. (Lecture 2 hrs., laboratory and field 3 hrs.) A course fee may be required.

551./451. Wetlands and Mangrove Ecology (3) S, even years

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 451; graduates register in BIOL 551.) Concepts of wetlands and mangrove ecology in relation to the general ecological processes that shape different types of wetland ecosystems. Physical and biogeochemical conditions, biological characteristics, specific players, and their interactions. Descriptions of specific coastal and inland wetland ecosystems: geomorphology, geochemistry, ecosystem structure, and function, and models. Included will be wetland management goals and concepts, and current approaches and practices in the US and the world. Lecture time may be used for field trips, two of which will extend beyond standard lecture time. (Lecture 3 hrs.)

552./452. Behavioral Ecology (3) S

Prerequisites: BIOL 312 or 350 or 351. Undergraduates register in BIOL 452; graduates register in BIOL 552.) Detailed study of how behavior contributes to reproductive success and survival. Emphasis given to theoretical background, ecological setting, and evolutionary consequences of behavior, including both empirical and experimental studies. (Lecture/discussion 3 hrs.)

554A./454A. Research in Tropical Marine Ecology (2) S, even years

Prerequisites: BIOL 260, either 350 or 353, and 313 or 413 or 419 or 425 and consent of instructor. (Undergraduates register in BIOL 454A; graduates register 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. An eight-day field trip to Hawaii will be required during the spring recess at student expense. Enrollment is limited. (Lecture 1 hr., 8 day field trip.) Letter grade only (A-F)

Biology Courses (BIOL)

554B./454B. Research in Tropical Terrestrial Ecology (3) S, odd years

Prerequisites: BIOL 350; one of BIOL 316, 324, 421, 424, 427, or 439; and consent of instructor. (Undergraduates register in BIOL 454B; graduates register in BIOL 554B.) Field based comparison of a tropical lowland deciduous forest and a tropical lowland rainforest incorporating basic methodology in ecology. Forest structure and diversity of arthropods, birds, mammals, reptiles, and amphibians will be emphasized. Students will be required to maintain a field notebook, submit a final paper, and give an oral presentation. A nine-day field trip to Costa Rica is required during spring recess at student expense. Enrollment is limited. (Lecture 2 hr., 9 day field trip.)

555./455. Ecology of Marine Communities (3) F

Prerequisites: BIOL 260, 350, 353. (Undergraduates register in BIOL 455; graduates register in BIOL 555.) Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and two class projects. (Lecture 2 hrs., field 3 hrs.)

556./456. Population Ecology (3)

Prerequisites: BIOL 350, MATH 119B or 123. (Undergraduates register in BIOL 456; graduates register in BIOL 556.) Analysis of characteristics of animal and plant populations including population growth and regulation, competition, predation, parasitism, and other intraspecific and interspecific interactions; population fluctuations: spatial patterns. (Lecture 3 hrs.)

557./457. Field Methods in Ecology (3) S, odd years

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 457; graduates register in BIOL 557.) Design of field research projects, collection and analysis of data, writing and presentation of reports. Emphasis on field sampling techniques. Five weekend field trips required. (Lecture 2 hrs., laboratory and field 3 hrs.)

558./458. Ecology of Marine Plankton (4) S, odd years

Prerequisites: BIOL 260, 353; CHEM 327 or 320A,B; MATH 119A or 122. (Undergraduates register in BIOL 458; graduates register in BIOL 558.) Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities. (Lecture 3 hrs., laboratory and field 3 hrs.) Course fee may be required.

559./459. Conservation Biology (3) F

Prerequisites: BIOL 260, 350. Recommended: BIOL 370. (Undergraduates register in BIOL 459; graduates register in BIOL 559.) Central concepts in conservation biology including population dynamics, extinction processes, population viability analyses, metapopulations, community-level interactions, island biogeography, patterns of biological diversity, habitat fragmentation, reserve design, and landscape-level conservation. Lecture will include group discussions of relevant primary literature. (Lecture 3 hrs., two weekend field trips may be required.)

563./463. Computer Modelling in Biology (4) F

Prerequisites: BIOL 260, 350. (Undergraduates register in BIOL 463; graduates register in BIOL 563.) History, modelling theory, different modelling approaches, theoretical, empirical, and quantitative modelling. Laboratory will use modelling software and focus on model construction and quantitative simulation, possibly of student's own research project. Applicable to ecology, microbiology, physiology, environmental sciences, etc. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

565./465. Experimental Design and Regression Analysis (4) F, even years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates register in BIOL 465; graduates register in BIOL 565.) Techniques in experimental design and data analysis applied to problems in biology. Topics include analysis of variance and covariance, bivariate and multiple regression, experimental design, bootstrapping and randomization tests, and nonparametric statistics. Laboratory experience in analyzing biological data with computerized statistical packages. (Lecture 3 hrs., laboratory 3 hrs.)

567./467. Multivariate Data Analysis (4) F, odd years

Prerequisites: BIOL 260; MATH 119B or 123; six units of upper division biological science or consent of instructor. (Undergraduates register in BIOL 467; graduates register in BIOL 567.) Multivariate data analysis techniques applied to biological data. Applied matrix algebra as needed for analyzing and understanding multivariate analysis methods. Topics covered include principal components analysis, factor analysis, discriminant analysis, cluster analysis as well as modern phylogenetic analysis techniques. Laboratory experience in analyzing multivariate biological data with computerized statistical packages. (Lecture 3 hrs., laboratory 3 hrs.)

573./473. Molecular Genetics (3) S

Prerequisites: BIOL 370. CHEM 327 or 320A,B. (Undergraduates register in BIOL 473; graduates register in BIOL 573.) Nature, replication, regulation and mode of action of the genetic material. (Lecture 3 hrs.)

577./477. Biotechnology: Applications of Molecular Techniques and Bioinformatics (3)

Prerequisites: BIOL 370; CHEM 441A, B; (all with a "C" or better). (Undergraduates register in BIOL 477; graduates register in BIOL 577.) Intensive study of the theory and techniques involved in the isolation, amplification, and analysis of genes, genomes, transcripts, and proteins. Includes identification and isolation of genes by hybridization or complementation, analysis of gene expression, and detailed study of how DNAs, RNAs, and proteins are characterized. Data-mining (generating hypotheses concerning the structure or function of a gene or protein by identifying similar sequences in better characterized model organisms), the use of homologs for experimental design and/or function analysis, the use of computers in experimental design, the current use of microarrays, and the future use of nanotechnology are also explored. (Lecture 3 hrs.)

580./480. Seminars (1) F,S

Undergraduates register in BIOL 480; graduates register in BIOL 580. Weekly meetings at which professional biologists present the results of their research. Requires participation in the organization and the critical evaluation of these presentations. May not be repeated for credit towards any single degree. (Seminar 1 hr.)

590./490. Special Topics in Biology (1-3)

Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates register in BIOL 490; graduates register in BIOL 590.) Topics from selected areas of biology. Course content will vary from section to section. May be repeated for a maximum of six units with different topics. Topics may be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

590L./490L. Special Topics Laboratory in Biology (1-2)

Prerequisites: BIOL 211A, B, with grade of "C" or better, and consent of instructor. (Undergraduates register in BIOL 490L; graduates register in BIOL 590L.) Topics from selected areas of biology. Course content will vary from section to section. May be repeated for a maximum of four units with different topics. Topics may be announced in the *Schedule of Classes*. (Laboratory 3 or 6 hrs.)

661. Seminar in Biology (2)

Critical evaluation of the primary literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hrs.) Letter grade only (A-F)

663. Seminar in Cell and Molecular Biology (2)

Critical evaluation of the primary literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hrs.) Letter grade only (A-F)

664. Seminar in Marine Biology (2)

Critical evaluation of the primary literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hrs.) Letter grade only (A-F)

665. Seminar in Ecology (2)

Critical evaluation of the primary literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hrs.) Letter grade only (A-F)

666. Seminar in Physiology (2)

Critical evaluation of the primary literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hrs.) Letter grade only (A-F)

696. Research Methods (3) F

Prerequisites: Approved thesis proposal and graduate program on file in the departmental graduate office, and consent of instructor. Development of the ancillary skills related to biological research, from initiation to presentation and publication. Topics include experimental design, computer-aided information retrieval, technical writing, data presentation, computer design of graphics, preparation of figures and slides, photography. The course culminates with formal oral, poster, and written presentations of research in progress. (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

697. Directed Research (1-3) F,S

Prerequisite: Consent of instructor. Research on a specific topic to be approved and directed by a faculty member in the biological sciences. A written report will be 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) F,S

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.

Microbiology Courses (MICR)

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 Courses with an asterisk may be used in graduate programs.

Lower Division

101. ## Introduction to Human Disease (3) F,S

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement. Introduction to the study of human disease including moral/ethical and economic issues. (Lecture 3 hrs.)

200. General Microbiology for Health Professionals (4) F,S

Prerequisites: CHEM 100 or 111A or 202 and completion of GE Foundation requirements. General microbiology for those planning careers in nursing, health care and education, and foods and nutrition. Introduction to the microorganisms, including structure, function, metabolism, growth, genetics, diversity and applied aspects, with special emphasis on their roles in human health. Not open for majors in the biological sciences. (Lecture 2 hrs., laboratory 6 hrs.) Course fee may be required. (CAN BIOL 14)

211. General Microbiology (5) F,S

Prerequisites: BIOL 211A with a grade of "C" or better, CHEM 111B. Introduction to the biology of the microorganisms, including structure, function, metabolism, growth, genetics, diversity, host-parasite relationships and applied aspects. (Lecture 3 hrs., laboratory 6 hrs.) Course fee may be required. (CAN BIOL 14)

Upper Division

300I. ## Human Immunology: In Self-Defense (3) F

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; one labo-

ratory course in a life science. Introductory psychology and a laboratory course in a physical science recommended. Introduction to the mechanisms and cells responsible for protecting the human body from disease. Normal functions of the immune system, diseases involving the immune system, and psychological, endocrine and age factors affecting the immune system will be included. Impact of immunology on organ transplantation, immunotherapy and biotechnology will be discussed. Not applicable for credit towards the major in Microbiology. (Lecture 3 hrs.)

303.## Public Health and Pollution (3)

Survey of public health and ecological problems in the community, control of communicable diseases; air, water and soil contamination. Recommended for non-majors interested in ecology and pollution control. (Lecture 3 hrs.)

320. Bacterial Pathogenesis (5) F,S

Prerequisites: MICR 211; CHEM 327 or 320A (may be taken concurrently). The first of a two-semester sequence (MICR 320/322) in medical microbiology designed for microbiology majors. Pathogenic bacteria of humans and animals; emphasis on bacterial ultrastructure, epidemiology, mechanisms of pathogenesis, host defense mechanisms, and antibiotic therapy; isolation and identification of microorganisms by morphological and cultural characteristics. (Lecture 3 hrs., laboratory 6 hrs.) A course fee may be required.

322. Mycology/Parasitology (5) F,S

Prerequisites: BIOL 211B; MICR 320. The second of a two-semester sequence (MICR 320/322) in medical microbiology designed for microbiology majors. Survey of parasitic protozoa, helminths, and fungi of humans; emphasis on identification of fresh and preserved specimens, pathogenesis, host-parasite interactions, epidemiology, prevention, and control. (Lecture 3 hrs., laboratory 6 hrs.) A course fee may be required.

323. Hematology (4) F

Prerequisites: MICR 211; BIOL 211B. Physiology and pathology of blood; preparation of blood for counts, hemoglobin determination, and related procedures. (Lecture 3 hrs., laboratory 3 hrs.) Course fee may be required.

*429 Epidemiology of Infectious Diseases (3)

Prerequisites: BIOL 260; MICR 320, 322. Principles of epidemiology and their application to health; fundamentals of biomedical statistics; basic factors in classic epidemiological studies and the prevention and control of infectious diseases. (Lecture 3 hrs.)

*430. Immunology (3) F,S

Prerequisites: BIOL 340 and either CHEM 320B or 327. Microbiology majors must enroll concurrently in MICR 430L. Introduction to cellular and molecular components of the immune system and normal functions of these components. Physical, chemical, and biological properties of antigens and antibodies and the role of the immune system in immune deficiencies, tolerance, transplantation, tumors, autoimmunity, and hypersensitivities. (Lecture 3 hrs.) Not open to students with a "C" or better in MICR 330.

*430L. Immunology Laboratory (2) F

Prerequisite: BIOL 340; MICR 320. Corequisite: MICR 430. Qualitative and quantitative *in vitro* and *in vivo* analyses of cellular and humoral immunity including selected clinically diagnostic immunoassays. Not available for credit to students completing MICR 330 prior to Spring, 1996. Not open to students with a "C" or better in MICR 331. (Laboratory 6 hrs.) Course fee may be required.

432./532. Immunohematology (2)

Prerequisites: A final grade of "B" or better in MICR 323 and 430 or consent of instructor required. (Undergraduates register in MICR 432; graduate students register in MICR 532.) Physical and biochemical characteristics of human erythrocytes. Detailed study of isoantigens and isoantibodies associated with human red blood cells; their detection, mechanisms of cellular destruction and relationship to hematopoietic disease. (Lecture 2 hrs.) MICR 432 will be accepted toward fulfillment of the 6 units of upper division microbiology electives.

*450. Microbial Genetics (2) F

Prerequisites: MICR 211; CHEM 441B. Biochemical and cytological bases of microbial genetics; nature, replication, modification and transfer of genetic material. (Lecture 2 hrs.)

Microbiology Courses (MICR)

*451. Microbial Genetics Laboratory (2) F

Prerequisites: MICR 450 (may be taken concurrently), consent of instructor. Laboratory study of microbial genetics. Genetic engineering techniques. (Laboratory 6 hrs.) Course fee may be required.

*452. Virology (3) S

Prerequisites: CHEM 441A, B and either MICR 320 or BIOL 340. Virology at a molecular level including virus replication and the molecular basis for viral pathogenesis; a survey of human and animal viral diseases. Current trends for prevention and treatment of viral diseases. (Lecture 3 hrs.)

*471. Bacterial Physiology (3) S

Prerequisites: MICR 320, CHEM 441A. Cellular physiology at the molecular level as related to bacterial growth, reproduction, nutrition, metabolism and ecology. (Lecture 3 hrs.)

*473. Food and Industrial Microbiology (3) F

Prerequisites: MICR 200 OR 211; CHEM 441A OR 448. Role of microorganisms in food and other industrial processes; emphasis on bacteria, yeasts and molds. (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

480./580. Seminars in Molecular and Cellular Biology and Microbiology (1)

Prerequisites: BIOL 211A, B, with a grade of "C" or better. (Undergraduates register in MICR 480; graduates register in MICR 580.) Weekly meetings at which professional biologists present the results of their research. Requires participation in the organization and critical evaluation of these presentations. May not be repeated for credit towards any single degree. (Seminar 1 hr.)

490./590. Special Topics in Microbiology (1-3)

Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates register in MICR 490; graduates register in MICR 590.) Topics from selected areas of microbiology. Course content will vary from section to section. Course may be repeated for a maximum of 6 units with different topics. Topics may be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

490L./590L. Special Topics Laboratory in Microbiology (1-2)

Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates register in MICR 490L; graduates register in MICR 590L.) Topics from selected areas of microbiology. Course content will vary from section to section. Course may be repeated for a maximum of 4 units with different topics. Topics may be announced in the *Schedule of Classes*. (Laboratory 3 or 6 hrs.) A course fee may be required.

495. Instruction in Laboratory Teaching (1-2) F,S

Prerequisites: Consent of lecture instructor, a "B" or better in the course in which the student elects to do MICR 495 (another course with laboratory may be substituted with consent of instructor), and an overall GPA of at least 2.75. Individual instruction in the organization and techniques of teaching a microbiology laboratory. May be repeated for a letter grade and degree credit to a maximum of two units for any single degree or option. 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. (Conference 1 hr., laboratory 3 hrs. per unit.) Same course as BIOL 495. Course may be repeated to a maximum of 2 units.

496. Undergraduate Directed Research (1-3) F,S

Prerequisites: BIOL 211A, B, MICR 211, all with grade of "C" or better, and consent of instructor. Research in a specific topic in the biological sciences to be approved and directed by a faculty member in the 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. Any units beyond the three taken for a letter grade in BIOL 496 or MICR 496, or any combination of the two, will be taken credit/no credit. Not available to graduate students. (Conference 1 hr., laboratory 3 hrs. per unit.) Same course as BIOL 496.

Graduate Level

532./432. Immunohematology (2)

Prerequisites: A final grade of "B" or better in MICR 323 and 430 or consent of instructor required. (Undergraduates register in MICR 432; graduate students register in MICR 532.) Physical and biochemical characteristics of human erythrocytes. Detailed study of isoantigens and isoantibodies associated with human red blood cells; their detection, mechanisms of cellular destruction and relationship to hematopoietic disease. (Lecture 2 hrs.) MICR 432 will be accepted toward fulfillment of the 6 units of upper division microbiology electives.

580./480. Seminars in Molecular and Cellular Biology and Microbiology (1)

Prerequisites: BIOL 211A,B, with a grade of "C" or better. (Undergraduates register in MICR 480; graduates register in MICR 580.) Weekly meetings at which professional biologists present the results of their research. Requires participation in the organization and critical evaluation of these presentations. May not be repeated for credit towards any single degree. (Seminar 1 hr.)

590./490. Special Topics in Microbiology (1-3)

Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates register in MICR 490; graduates register in MICR 590.) Topics from selected areas of microbiology. Course content will vary from section to section. Course may be repeated for a maximum of 6 units with different topics. Topics may be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.)

590L./490L. Special Topics Laboratory in Microbiology (1-2)

Prerequisites: MICR 211 with grade of "C" or better, and consent of instructor. (Undergraduates register in MICR 490L; graduates register in MICR 590L.) Topics from selected areas of microbiology. Course content will vary from section to section. Course may be repeated for a maximum of 4 units with different topics. Topics may be announced in the *Schedule of Classes*. (Laboratory 3 or 6 hrs.) A course fee may be required.

661. Seminar in Microbiology (2)

Prerequisites: Consent of instructor. Critical evaluation of the literature of this field, including oral and/or written presentation of critiques. Course may be repeated to a maximum of 4 units with different topics. (Seminar 2 hours) Letter grade only (A-F)

697. Directed Research (1-3) F,S

Prerequisite: Consent of instructor. Research on a specific topic to be approved and directed by a faculty member in the biological sciences. A written report will be 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) F,S

Prerequisites: Advancement to Candidacy for the Master of Science in Microbiology, 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.

BLACK STUDIES

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Department Secretary

Wanda White

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for referral or the faculty advisor. The Black Studies curriculum is designed to provide general knowledge of Black culture and history and to offer training for professional work in the Black community. It offers programs to serve (1) business; (2) those entering a variety of occupations including government, teaching, school administration, foreign service, law, urban planning, communications, journalism, psychology, recreation, speech and linguistics; (3) majors in other fields, such as history, literature, creative writing, anthropology, who wish to include additional dimensions to their course of study.

Bachelor of Arts in Black Studies (code B/STBA01) (120 units)

Requirements

A minimum of 45 units is required in the major in Black Studies.

Lower Division: B/ST 110 and 9 additional units selected one course from each of the following:

Group A) B/ST 120, 121, 200

Group B) B/ST 140, 155, 160

Group C) B/ST 170A, 170B, 210

Upper Division: B/ST 330, 332, 335, 495, plus 15 units with one or more courses selected from each of the following:

Group A) B/ST 310, 325, 331, 337, 410

Group B) B/ST 340, 343, 346, 353I, 363

Group C) B/ST 304, 345, 380, 475

Social Science Requirement: Six upper division units from American Indian Studies, American Studies, Anthropology, Asian and Asian American Studies, Chicano and Latino Studies, Computer Studies, Economics, Geography, History, Human Development, Political Science, Psychology, Social Work, Sociology, Women's Studies. These units are in addition to those used to fulfill the requirements of any General Education category.

Certificate in Black Studies (code B/STCT01)

Students majoring in other departments of the University but interested in Black Studies may at the same time pursue a program leading to a Certificate in Black Studies. 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 bachelor's degree with a major in a traditional 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: B/ST 110, 210, 325, 330, 332, 335, 370, 420

Group B: B/ST 160, 340, 343, 346, 363, 450

Group C: B/ST 120, 121, 200, 201, 304, 337, 400, 410

Minor in Black Studies (code B/STUM01)

Requirements

A minimum of 24 units of which at least 12 units must be in upper-division courses, with two or more courses selected from each of the following:

Group A: B/ST 110, 210, 325, 330, 332, 335, 370, 420

Group B: B/ST 160, 340, 343, 346, 363, 450

Group C: B/ST 120, 121, 200, 201, 304, 337, 400, 410

The Minor in Black Studies is open to any non-Black Studies majors.

Courses (B/ST)

Lower Division

1. Language Skills (3)

Not open to students with credit in Language Skills 170A. Focuses on intensive development of grammatical skills and expository writing. Primarily for Black students. Credit/no credit only. Counts as part of student's course load but does not carry graduation credit.

100. Language Skills – Composition (3)

Prerequisite: A recorded total of 151 above on the English Placement test (EPT), or credit in B/ST 1 or its equivalent. The course focuses on organizational methods and techniques for writing compositional and expository prose, advanced grammar and some critical reading techniques for term papers. It is designed for first year students, especially Bidialectal and ESL students.

110. Introduction to Black Studies (3)

Prerequisite/corequisite: One GE Foundation course. Survey of major themes, issues and concepts of Black Studies. Emphasis given to major schools of thought, research materials and sources, and major scholars of the discipline. Special attention will also be given to the historical evolution and academic rationale for Black Studies.

115. Introduction to African Politics (3)

A review of recent developments or changes in the government, parties, political ideologies, politics, leadership and political processes in selected African countries.

120. Afro-American History to 1865 (3)

Prerequisite/corequisite: One GE Foundation course. Survey course which presents a description and analysis of African civilizations shortly before the coming of the European. It will also focus on the impact, significance and role played by the African from the colonial period through the American Revolution, to the Civil War.

121. Afro-American History 1865-Present (3)

Prerequisites/corequisite: One GE Foundation course. Impact of social, economic and political change on Blacks in America after the Reconstruction period. Black migration, education, cultural development and business enterprises will be examined.

140. Introduction to African-American Literature (3)

Prerequisite/corequisite: One GE Foundation course. A study of selected or representative literature of the African-American writer. Special attention will be given to style, content, methodology and thematic approach.

150. Critical Thinking and the Minority Experience (3)

Provides analytical tools for applying critical thinking to the development of academic skills and to the analysis of social issues. Includes instruction in inductive and deductive reasoning; analyzing types of meaning (denotative vs. connotative) and their relevance to social issues, e.g., racism, sexism, elitism; distinguishing fact from opinion.

155. Afro-American Music (3)

Prerequisite or corequisite: One GE Foundation course. Nontechnical survey of African-American music. Some attention given to the impact of social movements on the musician and the music produced. Gospel, jazz and well-known derivatives will be highlighted.

160. Introduction to Black Arts (3)

Prerequisite or corequisite: One GE Foundation course. A presentation of prevailing themes, methodology, concepts and meaning in African art. Equal time is given to contemporary art and art of recent history. The work of some African artists highlighted as appropriate.

167. Exploitation of the Black Athlete (3)

Study of the socio-dynamics of amateur, professional and collegiate sports activity in the United States as it relates to the African-American community. Case studies of well-known Black athletes will also be presented.

170A. Elementary Swahili (4)

Prerequisites/Corequisite: Any Foundation Course. For those who are just beginning the study of Swahili. Introduction to grammar, syntax comprehension, reading, writing and conversation in the language. Traditional grading only.

170B. Elementary Swahili (4)

Prerequisites: B/ST 170A or equivalent competency. This course is a continuation of B/ST 170A. Advanced grammar, syntax, comprehension, reading, writing and conversation in the language. Traditional grading only.

180. Black Language in America (3)

Historical, phonological, and sociological aspects of the language of Black Americans; traces Ebonics from early use in trading off west coast of Africa; linguistic development from lingua franca to pidgin and creole; linguistic symbols, terms, and analysis applied to Black English; difference versus deficit theories of learning.

190. Racism in the American Military (3)

Concise review of alternate policies of exclusion, restriction, segregation and conscription of the African-American in armed services.

200. Ancient African Civilizations (3)

Prerequisite: Completion of GE Foundation requirements. A study of ancient African empires and kingdoms. Topics include migration, education, family structure, political institutions, cultural transmission and commercial trade.

201. History of Slavery (3)

Prerequisite: Completion of GE Foundation requirements. Historical examination of the trans-Atlantic slave trade and its impact on Africa and the Western Hemisphere, with major emphasis on the nature of slavery in Africa, Greece, Italy, the Caribbean, the Middle East, South America, and the United States. Slavery's aftermath on social integration in America and other countries.

205. Modern Black South African Literature (3)

Prerequisite: Completion of GE Foundation requirements. The course studies South African literature written in English by Africans since the mid-1800's to present. "Black" is used broadly to include South Africans of mixed parentage whom the racial laws and policies of the white minority government had isolated from other Africans, classifying them as "Coloreds." Traditional grading only.

210. African American Community (3)

Will examine the social structure and changes in the community life of African-Americans as compared to other ethnic groups. It will also explore and analyze how institutional and stratification patterns, demographic changes, social movements, and community organizational programs affect Blacks. Several case studies will be presented to underscore the strength and resiliency of the Black community.

215. U.S. Diversity and the Ethnic Experience (3)

Prerequisites: The course is open only to Integrated Teacher Education Program students. This course is a survey of four major ethnic groups (American Indians, African American, Latino Amer-

ican, and Asian American) in American society from the colonial era to the present. Special attention is given to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States. Same course as AIS 215, ASAM 215, CHLS 215. The departments take turns offering the course in the Fall semester. Traditional grading only.

240. African and African American Folklore and Culture (3)
An examination and presentation of material on folklore, folk tales, and folk heroes in the Black community. Some attention also given to Black mythology.

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.

304. The African Colonial Experience (3)
A critical examination of colonialism as a world phenomenon focusing on colonialism in Africa as the paradigm and point of departure for a specific and comparative understanding.

310. Black Male and Female Relationships (3)
A comprehensive study of male/female patterns of interaction in the Black community. Some attention given to institutional impact, role changes and projected images of relationships.

319. The Ethnic Experience in the U.S. (3)
An examination of the dynamics of the development of our multi-cultural 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 AIS 319, ASAM 319, CHLS 319, W/ST 319. (Lecture/Discussion.)

325. Psychology of Minorities (3)
Prerequisite: B/ST 110 or PSY 100. This course develops the concept of a minority psychology. Using comparative techniques and guest lecturers, this course introduces the student to common psychological consequences in the experience of being a minority person.

330. Politics of the Black Community (3)
Prerequisite: B/ST 210. Study of the perspectives, styles, problems and dynamics of political activity in the Black community.

331. Black Juvenile (3)
Prerequisite: B/ST 210 or consent of instructor. Critical approach to the problem of juvenile justice in the black community.

332. Civil Rights and the Law (3)
Designed to provide the student with a basic understanding of the interaction between the American legal system and civil rights of Blacks, other minorities, women, and the general citizenry.

335. Economic Development in the Black Community (3)
Prerequisite: B/ST 121. Development of business and banking institutions in the Black community. Some attention given to the impact of external factors on development.

337. Cultures of the Pan-African Peoples (3)
Prerequisite: B/ST 200 or consent of instructor. Presentation of a cultural map of African people emphasizing geography, migration and cultural similarities.

340. Research Topics in African- American Literature (3)
Prerequisite: B/ST 140. In-depth presentation and analysis of selected issues and dominant personalities in African-American literature; personality and issue to be matched.

343A. African Literature (3)
Prerequisites: Completion of GE Foundation requirements and one or more Explorations course. 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.

345. Politics of Black Power (3)
Systematic analysis of the Black Power movement of the 1960's, including contributions and contradictions of major organizations, leadership, and ideologies.

346. Black Theatre (3)
Prerequisites: All Foundation Courses. Introductory survey course of Black Theatre as a historic medium, profoundly revealing in its humanistic, literary, social and cultural heritage as it relates to Africa, America and the Caribbean.

353I. Black Religion (3)
Prerequisites: Completion of the GE Foundation, one or more exploration courses and upper division standing. A 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 including comparative analyses of the continental and diasporan expressions of these traditions.

363. History of African Art (3)
Survey of African art from antiquity to the present, with principal focus on sub-Saharan art.

370. Black Images in the Mass Media (3)
Prerequisite: B/ST 121. Examination of the portrayal of Black people in the mass media, past and present. Primary emphasis on newspapers, radio, films and television.

380. African Political Theory (3)
Prerequisite: B/ST 115. Examination of theorists and theories which shape African political philosophy. Special attention given to the concepts of Pan-Africanism, African socialism, Negritude and revolution.

381. Blacks and Party Politics (3)
An analysis of Black participation in the U.S. political party process. Special features will include information on Black participation in the Republican, Democratic and third-party organizations. Material and discussion on independent Black political party efforts will also be included.

400. Afro-American Social Thought (3)
Survey of African-American intellectual history, with emphasis on social theories and opposing schools of intellectual thought.

404. Contemporary Issues of the Third World Nations (3)
Study of the shifting power and international status of the Black world. Geo-politics and the diplomatic policies of selected countries will be highlighted.

410. The Black Family (3)
Prerequisite: B/ST 325 or consent of instructor. A systematic study and a social historical analysis of the structure and function of the Black family in the United States. There will also be a sociological/theoretical analysis and review of the models of family units, roles and interpersonal relations in society. The theoretical perspective will provide a framework to compare and contrast the Black family and other family units in America.

415. International Black Children's Literature (3)
International Black Children's Literature: A survey of Literature suitable for Black children by authors from Africa, the United States, and the Caribbean.

420. Black Children in Public Schools (3)
Theories, concepts and principles relating to the intellectual growth, development and learning of Black children.

423. Problems in Psychological Assessment of African Americans (3)
Prerequisites: candidates must have a working knowledge of statistical concepts, upper-division standing in Black Studies or permission of instructor. Examination of issues, problems, and practices in the assessment of African American children.

424. Advocacy for Black Child Mental Health (3)
Prerequisites: Upper-division standing or consent of instructor. Examination of the essential mental health needs of Afro-American children, their legal and educational rights as well as preventive and remedial measures. Throughout the course, emphasis will be placed on many faces of advocacy the building of a system of delivery of human services at neighborhood levels for vital preventive and remedial needs.

430. African Political Leadership in the Twentieth Century (3)

The course is a critical examination of Africa's search in the 20th century for national liberation and cohesion, collectively built institutions, movement/parties, and ideological self-definition. A comparative study of traditional African leadership concepts and/or styles, and modern forms that have evolved since contact with the Europeans, will be undertaken. Focus will be on selected countries and major African leaders in Lusophone, Francophone, and Anglophone Africa. The content of the leaders' ideas will be analyzed; socio-politico-economic forces giving rise to those ideas will be studied.

432. Advanced Studies in Afro-American Music (3)

Prerequisite: B/ST 155. Study of the development, evolution and essence of Afro-American music in the 20th century from perspectives of Afro-American social and cultural history.

450. Black Writers Workshop (3)

Prerequisite: ENGL 100, B/ST 100, or equivalent. This course requires extensive writing in four major areas: poetry, drama, fiction and documentaries. It assumes that technical or grammatical problems of writing have been taken care of and focuses on themes which are Afro-centric.

452. Ecology of Black Crime (3)

Prerequisite: B/ST 210 or 332. Study of the interrelationships between the black criminal, the minority community and the criminal justice system.

460. African Thought (3)

Prerequisite: Background knowledge of Africa from history, political science, anthropology or sociology is highly recommended. Analysis of philosophical and religious systems of Africa from antiquity to present.

475. Racism and Sexism: An Analytical Approach (3)

Prerequisite: B/ST 332. An 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 concepts of racism and sexism will also be presented.

490. Special Topics in Black Studies (3)

Prerequisite: Consent of instructor. Topics of current interest in black studies selected for intensive development. May be repeated to a maximum of 6 units with different topics in the same semester. Topics will be announced in the *Schedule of Classes*.

495. Research Methods in Black Studies (3)

Prerequisites: B/ST 110, SOC 255 or equivalent statistics course, and 6 units upper-division work in Black Studies. This course is for the Department major. It will present information on the use of scientific methods in Black Studies, research theory, research design, sampling, measurement and science techniques. It will also focus on instrument construction as well as test reliability and validity.

498I. Ancient Egyptian Ethical Thought (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper division standing. A critical study of the ethical thought of ancient Egypt with due attention to the theological, literary and socio-historical context in which it was developed and evolved. This will include a systematic examination of the major ethical texts of ancient Egypt: (1) the Sebit (The Instructions); (b) the Ikeru (The Declarations of Virtue); (3) the Book of Khunanup; and (4) the Declarations of Innocence in the Pert-em-Heru (The Book of Coming Forth By Day). Also, appropriate comparisons will be made between the theological, ethical and general religious parallels of the ancient Egyptian tradition and the Jewish, Christian and Islamic 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.

COLLEGE OF BUSINESS ADMINISTRATION

Dean

Luis Calingo

Assistant to the Dean

Vacant

Associate Dean

M. B. (Mo) Khan

Assistant to the Associate Dean

Margaret Williams (562) 985-7696

Associate Dean for Academic Initiatives

Jeanette W. Gilsdorf

College Office

College of Business Administration - 200

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Betty Harris, Manager

Development Office (562) 985-2264

William C. Hendry, Director

Student Life and Development (562) 985-8600

Stuart Farber, Assistant Dean

Academic Technologies

Francoise Corey, Director (562) 985-5297

Graduate Programs and Executive Education (562) 985-1797

H. Michael Chung, Interim Director

Undergraduate Admissions and Advising Center (562) 985-4514

Carol Grutzmacher, Director

Mentoring Business Program (562) 985-2265

Stephanie Teer, Acting Director

CBA Computing Center (562) 985-4988

John Ferretti, Acting Director

Information Processing Center (562) 985-5628

Stephenie Canavan, Coordinator

Departments

Accountancy (562) 985-4653

Steve Fisher, Chair

Finance, Real Estate and Law (562) 985-4569

L.R. Runyon, Chair

Human Resources Management and Management (562) 985-4753

Philip Chong, Chair

Information Systems (562) 985-4993

Richard D. Wollmer, Chair

Marketing (562) 985-4769

Richard Celsi, Chair

International Business Program (562) 985-5072

Paul Frantz, Director

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The College of Business Administration seeks to prepare its students for entry into successful careers in business. As each graduate pursues a successful career, it is anticipated that personal responsibility will be accepted for maintaining and enhancing the quality of the society in which business and the individual operate.

The College

The College of Business Administration has five departments: Accountancy; Finance, Real Estate and Law; Human Resources Management and Management; Information Systems and Marketing. Each is responsible for administering one or more of the degree options.

Overview of Programs

Accreditation

The College of Business Administration offers undergraduate and graduate programs of study. Both programs are nationally accredited by the Association to Advance Collegiate Schools of Business - International (AACSB), 600 Emerson Road, Suite 300, St. Louis, MO 63141-6762, phone: (314) 872-8481, and may lead to completion of the following:

Bachelor of Science in Business Administration

Specialization may be made in a choice of the following areas, hereafter referred to in this *Catalog* as Options:

Accountancy; Finance, Real Estate and Law; Human Resources Management; International Business; Management; Management Information Systems; Marketing; Operations Management. (See following pages for more information.)

Students who complete and formally declare two options may be regarded as having completed a double major, and appropriate notation can be made on the transcript.

Minors in Business Administration

The College of Business Administration has developed minors available to any non-business student. Significant preparation for business employment may be developed through completion of an organized program from one of the following areas: Management Information Systems, Human Resources Management, Marketing, Entrepreneurship. (Refer to the section on Minors for more information.)

Master of Business Administration

Specialization may be made in one of the following areas: Business Finance, Human Resources Management, Information Systems, Management, Marketing, Engineering Systems. (Refer to the following pages for more information.)

Student Services

Admission and Advising Information

The College of Business Administration maintains an advising and admissions office in CBA Room 105 for undergraduate students. There is an office for graduate students in CBA 363. Advisors are available in these offices throughout the semester to assist students with admission, registration, and degree requirement information. An undergraduate handbook is available in the campus copy center.

The Mentoring Business Program (MBP)

MBP is a support program within the College of Business Administration. Our focus is to assist students with their transition into college and into the business industry. Each student is paired with a mentor at each stage of their academic and professional development. Freshmen and sophomore students are mentored by upper division business students or faculty as they begin their educational journey at CSULB. Junior and senior students are connected with corporate professionals in business industry. This relationship assists our students with networking and internship opportunities as they prepare for their transition into their professional careers. The Mentoring Business Program also encourages students to become involved with a business student organization to assist them in meeting students and expanding their opportunities. We also provide business workshops, corporate tours and scholarships. For details regarding our application process, please call The Mentoring Business Program at (562) 985-2265.

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.

Selected scholarships and fellowships within the College of Business Administration are publicized. Consult the Director of Student Life and Development for information, CBA 210, (562) 985-8600.

Achievement Awards

Beta Gamma Sigma "Outstanding Student in Business" Applications are usually due April 1. The award is presented in early May at the annual Beta Gamma Sigma Installation and Banquet.

Outstanding Graduating Senior Applications are usually due March 1. The award is presented at the May commencement ceremony, and the recipient is also honored at an Alumni Association banquet in June.

The Wall Street Journal Award (Based on GPA) Applications from graduating seniors are usually due March 1. The award is presented at the May commencement ceremony.

Student Organizations

Numerous organizations are available for business students. They include: American Marketing Association, Beta Alpha Psi/Accounting Society, Human Resources Management Association (HRMA), Information Systems Students Association, The Society for the Advancement of Management, Beta Gamma Sigma, Black Business Students Association, Delta Sigma Pi, Hispanic Students Business Association, Long Beach Entrepreneur Society, Professional Women in Business, International Association of Students in Economics and Commerce (AIESEC), Financial Management Association, Operations Management Association and Pacific Rim.

The Associated Business Students Organization Council (ABSOC) is a facilitating and coordinating organization for business student organizations. ABSOC is composed of elected officers from each organization. Through these stu-

dent organizations each year business students are provided opportunity to meet representatives of business and industry. Prominent executives are, in addition, invited to the campus for dialogue with business students. ABSOC and the Associated Students co-sponsor the annual "Meet the Industries Night," a spring job fair which draws over 60 companies and several hundred students.

Beta Gamma Sigma: 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 three percent of their junior class or the upper seven percent of their senior class, or rank in the upper ten percent of those receiving masters degrees in business administration.

The MBA Association is established to provide a mechanism to promote contact between members, potential employers and business people in the community through guest lecturers and other functions, to promote the flow of communication between individuals pursuing an MBA, and to establish a forum for discussion of issues affecting MBA students at CSULB. Every MBA student is eligible for membership and is encouraged to take an active role to enhance personal and association growth.

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, and computer programming. A computer laboratory facility is maintained within the College to provide computer access for business students.

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

Fall and Spring 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 College of Business Administration Advising Center (CBA, Room 105). Whereas 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.

Applicants must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:

1. Completion of 56 semester units of baccalaureate-level work applicable toward a degree at CSULB.
2. Demonstration of computer literacy and competency by achieving one of the following.
 - A. A passing score (70 percent) on the CBA Computer Proficiency Examination, or
 - B. Completion with credit of IS 233 (Introduction to Computer Systems and Applications) or of an equivalent transfer course with a grade of "C" or better, or
 - C. Completion of IS 240 (Management Information Systems) or of an equivalent transfer course with a grade of "C" or better.

Applicants to the upper-division major with a cumulative GPA of 3.00 or higher are guaranteed admission to the major. Applicants with a cumulative GPA between 2.40 and 2.99 will be admitted on a space-available basis. Applicants with a cumulative GPA below 2.40 will not be admitted.

Special Enrollment Status

Enrollment through Open University (University College and Extension Services) is allowed only on a space available basis. Space availability is not based on the number of unoccupied chairs in a classroom. Instead, it is determined by the type of course and teaching method. The student must otherwise be qualified.

Disqualified students are not permitted to enroll in any course in the College of Business Administration.

Concurrent Enrollment/Transfer of Credit

Undergraduate students who wish to take course work in a community college or other university or college to meet CSULB College of Business Administration or General Education requirements must carefully observe University and College requirements. As noted below under Requirements for the Bachelor of Science in Business Administration, some courses must be taken at CSULB and cannot be transferred from another school. Business courses taken at other schools may be transferred for credit at CSULB if a grade of "C" or better was earned. No upper division credit will be given for lower division courses. For this purpose there are two categories of schools. Courses taken at a business school which is AACSB accredited are generally acceptable for major transfer credit at CSULB. Courses taken at non-AACSB accredited schools must have prior approval by the dean's designee.

Grading Policy

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. Enrollment in a business course as an auditor is not permitted.

UNDERGRADUATE PROGRAMS

Bachelor of Science in Business Administration

Requirements

In order to graduate with a business degree from CSULB, a student must complete a minimum of 30 units here. At least 24 of these units must be upper division. Twelve of the upper division units must be in business.

A minimum of 124 units will be required for all options in business with the exception of Accountancy, which requires a minimum of 128 units. At least 12 upper division units in business, including MGMT 425 must be completed at CSULB. At least 50% of all units applied toward the degree must be taken outside of the College of Business Administration. Included in this 50% are statistics and economics courses.

1. Lower Division Courses:

ACCT 201; ECON 100, 101; FIN 220; MATH 114, 115, and PHIL 160 or 170 (Accountancy majors must take PHIL 160. MIS majors must take PHIL 170.

2. All business and pre-business majors shall demonstrate computer literacy and competency prior to taking junior and senior level courses. This requires one of the following:

- A. A passing score (70%) on the Computer Proficiency Examination (CPE),
- B. Completion of IS 233 with Credit (Cr) or "C" or better grade" in a transfer equivalent course,
- C. Completion of IS 240, or "C" or better grade" in a transfer equivalent course.

3. Upper Division Courses (33-34 units):

A. CBA 300, ACCT 310 (Accountancy majors must take ACCT 320 instead of ACCT 310), ECON 333; FIN 300, 320; IS 300, 301, 310; HRM 360; MGMT 300; MKTG 300.

B. The capstone course, MGMT 425. This course must be taken at CSULB as a senior and after the upper division prerequisite core courses have been completed (ACCT 310 or 320, FIN 300; MGMT 300; MKTG 300).

C. Completion of at least one option (15-24 units); select from the options listed below.

4. Elective units to make up the total 124 units required for the degree (128 for Accountancy majors). Each student is encouraged to select electives for expansion of knowledge and intellectual interests as well as for preparation for business employment.

ACCOUNTANCY DEPARTMENT

Option in Accountancy (code ACCTBS01) (128 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

ACCT 300A-B, 400, 451, 470, 480, and one course from ANTH, PSY, or SOC.

INFORMATION SYSTEMS DEPARTMENT

The Information Systems Department administers an option in Management Information Systems.

Option in Management Information Systems (code IS__BS01) (124 units)

This option prepares students for careers in Management Information Systems in business, education, and government. Emphasis is on systems management, information process and analysis, and new uses of information technology. Fundamentals of business information systems, computer hardware, system and application software, telecommunications, electronic business, and decision support systems are included to provide the student a solid foundation in this rapidly changing field. The curriculum is based on both the DPMA and ACM models.

Students in the Management Information Systems Option may choose one of the following three tracks within the Option: Applications Development, Business Telecommunications, or Electronic Commerce.

Applications Development Track

Requirements

A minimum of 18 units, of which 15 must include: IS 340, 355, 380, 385, 485; and one course to be selected from: IS 320, IS 464, IS 470, IS 480.

Business Telecommunications Track

Requirements

A minimum of 18 units, of which 15 units must include: IS 340, 355, 380, 455, 485; and one course to be selected from: IS 320, 456, 464, 470.

Electronic Commerce Track

Requirements

A minimum of 18 units, of which 15 must include: IS 343, 355, 380, 445, 484; and one course to be selected from: IS 320, 446, 456, 483, MKTG 437.

FINANCE, REAL ESTATE AND LAW DEPARTMENT

Option in Finance, Real Estate, and Law (code FIN__BS01) (124 units)

The objective of the finance curricula is to prepare students for a successful career in business with an understanding of the financial decision making process and its impact within the overall framework of the business enterprise. The finance curricula offers education in the management techniques and regulations applicable to financial management and investments. The curriculum draws on fundamental knowledge of statistics, computer logic and economics to develop advanced financial concepts. It explores the historical and cur-

rent roles of various financial institutions and regulatory authorities; details the basic principles and techniques for valuing financial instruments on the basis of fundamentals and/or historical pricing trends; explores the methods of managing risk; and examines financial principles that govern international trade. The finance major may direct the concentration toward financial management or investments.

The financial management concentration provides an opportunity for the student to gain an understanding of the role of finance in the corporate environment. An understanding of investments at both the corporate and personal level is the objective of the investments concentration. Within these concentrations students are provided with an opportunity to gain an understanding of the role of the various aspects of law in a business context, including the development of a comprehension of business ethics.

Financial Management Concentration Requirements

FIN 330 or 340, 350, 400 and 6 units to be chosen from: FIN 360, 425, 450, 490.

Investments Concentration Requirements

FIN 330 or 340, 350, 400 and 6 units to be chosen from: FIN 424, 450, 480, 490, 499A and 499B.

FIN 499A and FIN 499B (Applied Portfolio Management) can satisfy the six units specific for the Investments Concentration. These courses must be taken in two consecutive semesters. Due to the limited number of available openings, applicants will be chosen according to their GPA, interest level, and personal interviews. Contact the Finance, Real Estate and Law department for further qualification requirements.

Option in International Business

For requirements please see the International Business section of this catalog.

MANAGEMENT AND HUMAN RESOURCES MANAGEMENT DEPARTMENT

The Management/Human Resources Management Department offers options in Human Resources Management, Management and Operations Management.

Option in Management (code MGMTBS01) (124 units)

The objective of the management curricula is to prepare students for a successful career in management of the business enterprise. Attention is given to the need to create and maintain a desirable internal environment. 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. The student's exposure to theory and concepts leads to the acquiring of knowledge and skills to assume first professional positions and progress through middle and upper management careers.

Requirements

MGMT 426 and 12 units selected from MGMT 326, 405, 410, 411, 412, 413, 414, 421, 430, 454, 455.

Option in Operations Management

(code MGMTBS02) (124 units)

The objective of the operations management curriculum is to prepare and stimulate student competence in the conceptual, systematic and analytical tools prerequisite for entry level and advanced positions in goods-producing and service-oriented industries. Emphasis is placed on the systems approach which stresses the concepts, techniques and policies essential for the economical and effective design, operations and control of manpower, facilities, materials, capital and informational inputs of organizations. Students are introduced to productivity tools such as Total Quality Control, Manufacturing Resource Planning, Just-In-Time Techniques. Simulation and Animation of Production Operations, Optimized Production Techniques, Kanban Systems, Japanese Productivity Techniques. Decision Support Systems.

Requirements

15 units to be taken as follows:

1. 6 units from MGMT 410, 411
2. 3 to 9 units from MGMT 412, 413, 414
3. Up to 6 units from MGMT 426, 430, 454, 455.

Option in Human Resources Management (code MGMTBS03) (124 units)

The Human Resources Management Option is designed not only for those who have an interest in working in the functional areas of HRM, but also for everyone who wants to become a member of management at any level in either the private or the public sector of the economy. The faculty integrate the theoretical with the practical to produce graduates with highly marketable skills. The major objectives of this option are (1) to provide students with theoretical foundations for understanding how employees are motivated to accomplish organizational goals, (2) to develop the practical skills necessary for employment in positions designed to attract, encourage, develop and retain human resources, (3) to develop an understanding of the theoretical and practical approaches to human resources management, (4) to develop aspiring leaders with a strong sense of ethics and social responsibility and an awareness of how societal changes necessitate organizational change. The curriculum emphasizes critical thinking, creative problem solving, and personal development to enhance managers' performance in a dynamic, changing, culturally diverse and globally expanding work environment.

Requirements

1. HRM 361
2. 12 units selected from HRM 440, 445, 446, 458, 460, 462, 463, 465

MARKETING DEPARTMENT

Option in Marketing (code MKTGGBS01) (124 units)

The discipline of Marketing, which is fundamental to all business enterprises, is largely a social process. The justification of any enterprise, be it involved in service or in the production or delivery of goods, is that it meets the needs of individuals or segments of society. The function of marketing is to determine those needs, to provide the most effective means

of informing actual and potential customers of the availability of the services and goods they require, and to deliver such services and goods.

Requirements

1. Nine units selected from MKTG 310, 330, 410, 420, 430, 437, 465, 480, 492
2. MKTG 470
3. MKTG 490
4. MKTG 494

MINORS IN BUSINESS

The College of Business Administration offers several minors for non-Business majors.

Minor in Human Resources Management (code MGMTUM01)

1. HRM 360, 361
2. 12 units selected from HRM 440, 445, 446, 458, 460, 462, 463, 465.

Minor in Entrepreneurship (code CBA_UM01)

The Minor in Entrepreneurship provides students with the opportunity to learn how to start businesses and other kinds of organizations.

For example, in engineering and the natural sciences, many students ultimately gain access to technologies that serve as the basis for technology-intensive new ventures. Students in the arts (industrial design, dance, theater, film, art, creative writing, etc.) may find that existing outlets for their work are insufficient, and they choose to establish new and innovative ones (community theaters, dance companies, alternative forms of art galleries, etc.). Students in health and human services frequently have the opportunity to start new organizations that deliver various kinds of services, many of them not-for-profit. Graduates of several of the social science programs routinely establish their own practices.

The Minor in Entrepreneurship is designed to reduce systematic startup risk and increase the rates of success for those who choose to start new businesses and other kinds of organizations.

Requirements

The program consists of eighteen units including: MGMT 300, 421.

And four courses from the following: ACCT 201; CBA 300; FIN 220, 300, 340, 495; HRM 360; IS 240, 355, 380, 445, 455, 483, 484; MKTG 300, 330, 492, 310, 410, 430, 465, 480, 490, 495, MGMT495 (two topics).

Minor in Management Information Systems (code IS__UM01)

Eighteen units including:

1. IS 300
2. 15 units chosen from IS 320, 340, 343, 355, 380, 385, 445, 446, 455, 456, 464, 470, 480, 483, 484, and 485.

Minor in Marketing (code MKTGUM01)

Eighteen units including: MKTG 300; 15 units selected from MKTG 310, 330, 420, 430, 437, 465, 470, 480, 490, 492, 495 or CBA 300 as approved by the Marketing Department. It is the student's responsibility to adhere to all prerequisite requirements listed below:

1. IS 310 prerequisite for MKTG 470;
2. MKTG 480 is a prerequisite for MKTG 481;
3. MKTG 300 is a prerequisite for MKTG 420, 430, 465, 470, 480, 481, 490 and 492.

Honors in Business

The College of Business Administration (CBA) at California State University, Long Beach, offers the opportunity for a selected group of outstanding students to earn a Certificate of Honors in Business. This enriched, more demanding program gives students an opportunity to enroll in special 'Honors Program' seminars composed of a small number of the CBA's most outstanding students that are taught by a select group of the College's faculty. In addition, students complete a senior project which can resemble an honors thesis or 'real-world' business project, depending on the individual student's interests and skills. Thus, the Honors Program offered by the CBA (CBAHP) is intended to be intellectually rewarding, and to provide a valuable experience that enhances students' future careers.

The program is designed as a 3-semester program, beginning in the Spring semester of the junior year. The program may be adjusted to accommodate students whose degree plan is 'off-track.' Typically, CBAHP students take a preliminary honors seminar the first semester, and progress to advanced honors seminars and their senior project the following academic year.

Admission

Admission is limited to approximately 20 students per year, but may increase depending on demand and college resources. Applicants are selected for their promise as interesting and creative individuals, not simply on the basis of grades or test scores.

Admission Requirements

Each applicant must meet the following basic requirements:

1. A minimum 3.5 cumulative GPA in all college and university courses, and a minimum of 3.5 GPA in the major. Students with a 3.2 – 3.49 may be admitted if they are nominated by two tenured faculty members of the CBA. A maximum of 10% of the students in the program will be admitted by nomination.
2. A minimum score of 14 on the WPE writing exam.
3. A completed application form. A personal interview may be requested at the discretion of the Program Director or Advisory Board.
4. At least one letter of reference from a tenured faculty member of the CBA. Additional outside character references (maximum of 2) are admissible as supplemental support for admission.

Applications should be addressed to the:

Director of the CBA Honors Program
College of Business Administration
1250 Bellflower Blvd.
Long Beach, CA 90840

Program Requirements

Award of the Certificate of Honors in Business requires:

1. Completion of the requirements of the major, with a minimum overall GPA of 3.5 and a minimum GPA in the major of 3.5.
2. A minimum GPA of 3.5 for all CBA Honors Program courses and seminars.
3. Completion of the 3 Honors Seminars. The seminars bring together scholars and noted business leaders from a broad range of disciplines/industries, and may involve multiple CBA faculty over the course of the program. Course projects are designed to 'fit' with the nature of the issues addressed, the expertise of the various distinguished guest speakers, and interests of the individual student.
4. Successful completion of the required Honors Thesis or Honors Practicum.
5. Students who fail to meet the above requirements or those who fail to enroll in CBA Honors Program courses will be withdrawn from the program. Others may also be withdrawn at the discretion of the Program Director for such reasons as unethical behavior or misconduct.

CERTIFICATES IN BUSINESS

Certificate in International Business

For requirements please see the International Business section of this catalog.

Certificate in Transportation (code CBA_CT01)

Requirements

1. A bachelor of science degree in Business Administration which may be completed concurrently with the certificate requirements;
2. A minimum of 15 units of transportation and transportation-related course work at California State University, Long Beach to be selected with the approval of the Program Director.
3. A grade of "C" or higher will be required for every course;
4. The certificate program does not permit the use of the Credit/No Credit option.

GRADUATE PROGRAMS

The College of Business Administration offers graduate study leading to the Master of Business Administration (MBA). The degree offered by the College of Business Administration is accredited by the AACSB - International.

The MBA is 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 program.

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. It is the responsibility of the student to purchase a current *CSULB Catalog* which sets forth the policies of the University and the College of Business Administration graduate program.

Admission Procedures

1. Students interested in applying to the MBA program at CSULB should request a University application and an MBA Application Packet from the MBA office. Students must complete and submit both applications in order to be considered for admission into the graduate program in business. Students should submit Part A and B of the University Common Admissions form to the University Admissions Office. Students applying for the MBA should mark "other masters" as the degree objective, and 05011 as the major code. Students should submit the MBA application with two letters of recommendation directly to the MBA office.
2. Two complete sets of official transcripts of all college work attempted are required. One set must be sent to:
California State University, Long Beach, Office of Admissions and Records, 1250 Bellflower Blvd., Long Beach, CA 90840
The other set of official transcripts must be sent directly to the MBA Office at the following address:
California State University, Long Beach, College of Business Administration, MBA Office, 1250 Bellflower Blvd., Long Beach, CA 90840
3. Graduate Management Admission Test (GMAT) scores must be forwarded directly from the Educational Testing Service to the College of Business Administration MBA Office. Test scores over 5 years old will not be considered.
4. Foreign students should first contact the Center for International Education on campus for special deadlines. Foreign students are required to take the TOEFL test and achieve a score of 570, in addition to the steps above required of all applicants to the MBA program.

Deadlines for International applications are:

- November for Fall Semester
- August for Spring Semester

All transcripts, the MBA Application Packet, GMAT score and TOEFL score (if applicable), must be filed in the MBA Office by:

- October 30 for Spring Semester
- May 30 for Fall Semester (except for GMAT scores which must be received by June 15)

Because of high demand for admission to the MBA program, it is advisable that students make their application to the program early. No action can be taken on applications until all required documents are received. Application materials submitted after these dates will be reviewed and students will be admitted as time and space permits.

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.
2. Graduate Management Admission Test (GMAT)
3. Managerial Experience: demonstration of increasing levels of responsibility.

4. Communication: ability to clearly identify the applicant's leadership potential, educational goals and academic strengths.
5. Two Letters of Recommendation
6. Essays

Upon completion of evaluation by the College of Business Administration MBA office, the student is notified by mail of acceptance or rejection. If accepted, the letter includes an evaluation listing prerequisites met by the student in previous course work and those still requiring completion. Course work over ten years old at the time of acceptance will not be considered for satisfaction of the First Year Core.

Enrollment

Admission to the University as a graduate student does not constitute admission to graduate study in the College of Business Administration. MBA programs require additional admissions criteria.

Admission to Graduate Courses

Only students who have been admitted to the 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 MBA office.

Enrollment in graduate courses through the Open University will normally be permitted only for students in an AACSB accredited graduate program elsewhere with a letter of permission from the Associate Dean/Dean of the student's home university.

Continuous Enrollment

Once a student is accepted and enrolled in the MBA Program, 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; 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 MBA Program. Registration privileges will be revoked. Students planning to continue in the MBA Program who have been administratively removed due to the violation of the Continuous Enrollment condition will be required to re-apply to the MBA Program.

Leave of Absence

Any MBA 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 MBA Office and the University Admission & 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, 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 MBA 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 education leave of absence will continue to receive registration information and access to the VRR system until the authorized leave time expires.

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 for the department chair in question and the MBA 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 MBA 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 in 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.

Transfer Credit

Assuming the Continuous Enrollment requirement has been satisfied, a maximum of six 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 MBA 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.

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 Probationary Semester.

A student on probation, who at the end of the Second Probationary Semester (or summer, if classes are taken) 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.

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 requirement 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.

Master of Business Administration (code CBA_MB01)

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.

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. Second Year Core	21
III. Advanced Study	9
IV. Capstone Course	3
V. Integrative	<u>4</u>
Total units	36-48

Students who have not had an economics course prior to entering the MBA program must complete an economics course as a condition to obtaining an MBA degree.

I. First Year Core: Common Body of Knowledge

The masters degree presupposes mastery of a common body of knowledge. Students with a bachelor's degree in business from this University or from other AACSB accredited business schools within the last 10 years will have met much of the First Year Core requirements. Individual business Administration courses taken as an undergraduate student at another AACSB institution may also meet specific First Year Core requirements. Upon acceptance to the program, a student's tran-

scripts are reviewed for completion of the necessary course work for mastery of the common body of knowledge. A grade of "C" or better is required to meet the criteria.

Waivers of First Year Core are based upon previous educational background at either a graduate or undergraduate level. Information on waivers may be obtained from the College of Business Administration, MBA Office. 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. This core must be completed before enrollment in the Second Year Core: ACCT 500, FIN 520, MGMT 500, MKTG 500.

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 6 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. Pass the Writing Proficiency Examination. (See next section)
5. Prepare an official student program in consultation with the MBA Office. This program must include the Second-Year Core in effect at the time of Advancement to Candidacy, the 9 unit program for the area of Advanced Study and the Capstone Course, GBA 699, for a total of 37 units.
6. File the application for Advancement to Candidacy with the MBA office for approval by the MBA Director.

III. 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: ACCT 610, FIN 600, HRM 652, IS 601, IS 602, MGMT 647, MKTG 661.

IV. Advanced Study

General MBA

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 normally requires 9 units of graduate course work in three different areas within the College of Business Administration subject to approval by the MBA Office.

Specialization

The specializations require 9 units of graduate course work in one area, one second year course and three electives. Each specialization should be planned in consultation with the MBA Office. Specializations are available in the following areas:

Accountancy

Requirements: nine elective units to be selected from ACCT 620, 630, 640, 650, 660, 670, 680, 695, 697.

Engineering Systems

The engineering systems specialization allows students with a strong engineering background to specialize within the MBA program in an area that may more closely match their career objectives. This specialization consists of graduate courses within the College of Engineering, subject to approval by the MBA Director.

Finance

Requirements: Nine elective units to be selected from FIN 524, 525, 620, 630, 650, 690.

Health Care Management

Requirements: HCA 502 and any two of the following: HCA 536, 537, 538, 550, 552.

Human Resources Management

Requirements: Nine elective units to be selected from HRM 650, 654, 655, 657, 658, 697.

Information Systems

Requirements: Nine elective units to be selected from IS 550, 564, 580, 584, 685.

Management

Requirements: Nine elective units to be selected from MGMT 542, 543, 645, 646, 647, 697.

Marketing

Requirements: Nine elective units to be selected from MKTG 610, 663, 665, 666, 668, 669, 695, 697.

Students may count 3 units of Directed Studies (697) toward the Advanced Study requirements. Elective courses designed to fulfill specialization requirements must be approved by the MBA Office through the completion and acceptance of the student's Advancement to Candidacy form.

V. Capstone Course: GBA 699

Integrated Analysis, GBA 699, is taken as the last or capstone course in the program. Students must plan to complete the Second Year Core before enrolling in GBA 699. This critical course is given during the Fall and Spring semesters. In this comprehensive analysis, the student will integrate the knowledge obtained in the functional areas. This capstone course serves in place of either comprehensive examination or thesis as the required evaluation of candidate competency. In lieu of completion of the required GBA 699, an MBA candidate may elect to complete a thesis for a minimum of four units credit.

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 MBA 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 MBA Office.

VI. Time Limitation

All courses on the official student program must be completed within seven years of the commencement of the first class toward fulfillment of the Second Year Core requirement.

VII. Writing Proficiency Examination

The Writing Proficiency Examination (WPE) is a unique requirement of this University. Satisfactory completion of the WPE is required before a student may Advance to Candidacy. Therefore, graduate students should register for the WPE in person when they first arrive on campus. CSULB will accept certain Graduation Writing Assessment Requirement (GWAR) Tests offered at other CSU campuses. The test must have been taken prior to initial enrollment at CSULB. The staff in Admissions and Records (BH 101) can clarify documentation required from each campus. Graduates must present the requirement documentation to the MBA Office as part of their application for Advancement to Candidacy. There are no exemptions to the requirement of an approved form of writing proficiency exam.

Undergraduate Courses (CBA)

Lower Division

130. Current Concepts of Business (3)

An overview of CBA options, including professional preparation and employment opportunities. Orientation to current CBA programs and requirements. Development of an understanding of contemporary business issues, including an introduction to major business functions. Strongly recommended for students interested in business careers.

Upper Division

300. International Business (3)

An introduction to the nature, dimensions, and environment of international business. Emphasis on business functions, practices, and decisions as they are influenced by cultural, political, economic, social, and institutional factors in various parts of the world. Diffusion of information technology. Letter grade only (A-F).

397. Junior Honors Seminar

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/Practicum. Letter grade only (A-F).

493. Business Internship (1-3)

Prerequisites: Classified business major and Instructor consent. Qualifying students will be placed in career-related paid assignments in private or public agencies or businesses. An organized plan utilizing a series of seminars and learning agreements is required along with selected reading and writing assignments. A minimum of 120 hours paid experience per semester is required. (May be repeated for a maximum of six units.)

497 Senior Honors Seminar I

Prerequisite: CBA 397. A continuation of CBA 397 with special emphasis on sampling, instrumentation, and data analysis (facilitated by sophisticated statistical software). Other topics covered may vary year-to-year depending on student interests and the expertise of contributory faculty/business professionals. Students are expected to perform the majority of the data collection and preliminary data analysis for their Honors Thesis/Practicum. Letter grade only (A-F).

499 Senior Honors Seminar II

Prerequisite: CBA 497. Final seminar in the CBA Honors Program, culminating with completion of the Honors Thesis/Practicum. All data analysis for the thesis/practicum is completed, findings are interpreted relative to the research hypotheses; and the final report is submitted for approval. Attention given to preparing manuscripts for publication, the academic review process, and making professional presentations. Learning by illustration and application via completion of the Honors Thesis/Practicum and visits by faculty and business leaders. Letter grade only (A-F).

Graduate Courses (GBA)

698. Thesis (2-4)

Prerequisite: GBA 601. Planning, preparation, and completion of a thesis in business administration.

699. Integrated Analysis (3)

Prerequisites: 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 advanced to candidacy. A comprehensive course which serves as the required terminal examination for College of Business Administration graduate candidates. A project is required. A study of a wide range of business problems and formulation of solutions to them. The object of this course is to assess student skills in integrating knowledge from all functional areas of business and applying them to complex business problems arising out of changing technology, competitive market conditions, social changes and governmental actions. The methodology may include cases, business simulation, and team teaching. A grade of "B" or better is required for successful completion. 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 MBA Office.

CHEMISTRY AND BIOCHEMISTRY

College of Natural Sciences and Mathematics

Department Chair
Douglas D. McAbee

Department Office
Peterson Hall (PH) 3-213

Telephone/FAX
(562) 985-4941/(562) 985-8557

Website
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Dennis M. Anjo
Peter Baine (Emeritus, 2002)
Stuart R. Berryhill
Jeffrey A. Cohlberg
Dorothy M. Goldish
Robert L. Loeschen
Tom J. Maricich
Margaret L. Merryfield
Glenn M. Nagel
Henry N. Po
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Krzysztof Slowinski
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Administrative Support Coordinator

Gina DeFinis

Undergraduate Advisors

Chemistry: Paul T. Buonora
Biochemistry: Douglas D. McAbee

Graduate Advisors

Chemistry: Henry N. Po
Biochemistry: Jeffrey A. Cohlberg

Graduate Studies Committee

Dennis M. Anjo
Jeffrey A. Cohlberg
Marco A. Lopez
Douglas D. McAbee
Henry N. Po

Honors in the Major

Margaret L. Merryfield

Students desiring information should contact the department office for referral to one of the faculty advisors.

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

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 about 350 majors. In addition, the Department offers a Minor in Chemistry. The Chemistry and Biochemistry Department Advisory Council, including persons prominent in the community, fosters communication between academic and industrial chemistry. It advises the Department concerning the instructional program and informs the Department of opportunities for interaction with the community.

Degree Programs

The program in chemistry at the bachelor's degree level is 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).

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 320A,B and/or 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. 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 Graduate Studies Brochure of the Department which is available upon request.

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. Application forms for these positions are available from the Graduate Advisors, Department of Chemistry and Biochemistry.

Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' 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 and 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 Student Access to Sciences and Mathematics Center (Faculty Office 5-109) or Department Office for additional information.

Bachelor of Science in Chemistry (code CHEMBS01) (124 units)

The bachelor of science degree program is intended to provide a thorough background in chemistry for those planning to pursue careers as professional chemists or to do graduate study in chemistry or biochemistry. This program, when supplemented with study in other appropriate areas, can serve as preparation for admission to the health professional schools (medicine, dentistry, pharmacy, etc.). Each student should consult with a faculty advisor to plan his or her individual program. Students may also wish to contact the Health Professions Advising Office in the Student Access to Sciences and Mathematics Center (FO5-109) for additional information and services.

Chemistry majors must achieve a grade of "C" or better in each chemistry course required for the major.

Requirements

Lower Division: CHEM 111A, B, 251; courses to support the major to include PHYS 151, 152, 255; MATH 122, 123, 224; and BIOL 211A.

Upper Division: CHEM 320A,B, 371A, B, 373, 420, 431, 451; one course chosen from among ENGL 317, 417, 418, 419, or CHEM 466H; and an additional six units of upper division chemistry which must include at least one unit of CHEM 496. A maximum of three units from CHEM 495, 496, and 499 and CH E 330, 425, 430, or 475 may be used to fulfill this six unit requirement. One additional course in computer programming must be taken from CH E 210 or CECS 174.

B.S. candidates are encouraged to acquire competence in reading scientific German, French, Russian, Chinese or Japanese. Students are also advised to take one or more additional courses in mathematics, such as MATH 247, 364A, 370A, 380.

Bachelor of Arts in Chemistry (code CHEMBA01) (120 units)

The bachelor of arts degree program in chemistry is intended to provide a background in chemistry, but not in the depth required for a bachelor of science degree. This program, when complemented with study in other areas, will serve as preparation for a career in chemical and related industries or secondary science education. The bachelor of arts program is also an appropriate preparation for medical, dental, law, and pharmacy schools. Students may also wish to contact the Health Professions Advising Office in the Student Access to Sciences and Mathematics Center (FO5-109) for additional information and services. In order to take full advantage of the bachelor of arts program for various career objectives, adequate counseling by chemistry advisors is indispensable. Each student must confer with an advisor to

set up his/her individually tailored program in chemistry and one or more complementary areas prior to beginning the course of study.

Chemistry majors must achieve a grade of "C" or better in each chemistry course required for the major.

Requirements

Lower Division: CHEM 111A,B, 251; courses to support the major to include PHYS 100A,B or 151, 152; and MATH 122, 123.

Upper Division: CHEM 320A,B,371A,B or 377A,B, 420, 451; one course chosen from among ENGL 317, 417, 418, 419, or CHEM 466H. A minimum of 3 additional units to be chosen in consultation with an advisor must be taken from CHEM 373, 421, 431, 441A,B, 496. Students must consult an advisor to select additional courses to meet the student's individual goals and interests.

Bachelor of Science in Biochemistry (code CHEMBS02) (124 units)

The Bachelor of Science degree in biochemistry is intended to provide a rigorous background in chemistry and biochemistry for those planning for graduate study in biochemistry or other life sciences, or for careers in biochemical and related industries. This program is also an appropriate preparation for medicine, dentistry, pharmacy and clinical chemistry at the graduate level. Students must confer with an advisor to set up an appropriate program for their goals.

Biochemistry majors must achieve a grade of "C" or better in each chemistry and biochemistry course required for the major.

Requirements

Lower Division: CHEM 111A, B, 251; courses to support the major to include BIOL 211A,B; MATH 122, 123; and PHYS 100A,B or 151, 152.

Upper Division: CHEM 320A,B, 371A or 377A, 371B or 377B (371A,B is recommended as preparation for graduate studies in biochemistry) 420, 441A,B, 443, BIOL 342 and 342L, BIOL 370 or MICR 450 and 451, 3 units of elective from CHEM 373, 421, 431, 451, BIOL 340, 445, 448, 473, MICR 452, 473, and one course chosen from among ENGL 317, 417, 418, 419, or CHEM 466H.

Teaching Credential

Requirements Related to a Chemistry Specialization

The Science Teaching Credential with a Specialization in Chemistry is formally administered by the Department of Science Education and the Single Subject Teacher Education Program in the College of Education. The student is strongly encouraged to consult with an advisor in the Department of Chemistry and Biochemistry, the Department of Science Education, or the Single Subject Credential Program for more information about additional requirements for the credential.

Lower Division: ASTR 100; BIOL 211A-B; CHEM 111A-B, 251; GEOL 102, 104, 160; PHYS 100A-B or 151-152, MATH 119A or 122, 123.

Upper Division: CHEM 320A-B, 441A, 451, 496, either 431 or 441B; SCED 403.

Degree Programs with 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*).

Chemistry majors should be aware that this program is designed for students with career goals in life science areas, and, as such, chemistry majors who wish to participate must take additional coursework in biology beyond the minimum required for a chemistry degree.

The requirements for Honors in the Major will also satisfy the requirements of a college-wide program, Honors in Biological Sciences, created with the support of a grant from the Howard Hughes Medical Institute. This grant provides opportunities for monetary support to students for completion of their research and thesis. While Honors in the Major requires junior or senior standing, the college-wide program offers an enriched curriculum beginning in the freshman year, including a freshman seminar (BIOL 110H), a critical thinking course designed for science majors, and an introduction to bioinformatics (BIOL 220H). Interested students should contact the Honors in Biological Sciences program director or the Student Access to Sciences and Mathematics Center.

Requirements for Admission to Honors in the Major

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 BIOL 211A, B; CHEM 251, 320A, B at 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.
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 BIOL/CHEM 466H, Research Design and Methods - Honors (3 units).
4. Completion of 3 units CHEM 496, Undergraduate Directed Research.
5. Completion of 3 units of CHEM 498H, Senior Thesis - Honors.

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 (code CHEMUM01)

The Minor in Chemistry is available to any non-Chemistry or Biochemistry major.

A minimum of 20 units of chemistry which must include CHEM 111A,B. A minimum of nine units must be taken from upper division chemistry courses. The following courses are not acceptable toward the minor: CHEM 100, 101, 202, 302.

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 prior approval to enroll 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.

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 post-graduate 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.

Master of Science in Chemistry (code CHEMMS01)

Prerequisites

1. Acceptance as a graduate student by the Chemistry and Biochemistry Department;
2. A bachelor's degree with a major in chemistry; or
3. A bachelor's degree with undergraduate preparation in chemistry, physics and mathematics equivalent to that required for the bachelor of science degree with a major in chemistry at this University;

4. Entering graduate students are required to take placement examinations in analytical, inorganic, organic and physical chemistry. Any student failing to take and pass a placement examination in any of these subjects is required to enroll in an appropriate course as recommended by the Graduate Studies Committee. Usually the recommended courses are: CHEM 451 if the subject is analytical chemistry; CHEM 431 if the subject is inorganic chemistry; CHEM 320A and/or 320B if the subject is organic chemistry; CHEM 371A and/or 371B if the subject is physical chemistry.
5. The placement examinations are usually given on Monday and Tuesday of the week preceding the first day of instruction. The Graduate Studies Committee evaluates the examinations and recommends appropriate courses to correct for any deficiencies in chemistry. The chemistry graduate advisor meets with the student at this time to prepare a tentative degree program.

Advancement to Candidacy

The Department recommends advancement to candidacy after the graduate student has:

1. Either passed the placement examinations in analytical, inorganic, organic and physical chemistry or passed the courses as recommended by the Graduate Studies Committee for correcting deficiencies;
2. Earned an average of at least 3.0 (B) in all work completed at this University as a graduate student;
3. Passed the Writing Proficiency Examination;
4. Obtained approval of a graduate degree program by the Chemistry Graduate Advisor, the Department Chair (in consultation with the Graduate Studies Committee), Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.

The student is expected to be advanced to candidacy by the beginning of the third semester of graduate work. Upon advancement to candidacy, a Thesis Committee will be selected in consultation with the Graduate Studies Committee.

Requirements

1. Advancement to candidacy at least one semester before the graduation date;
2. The completion of a minimum of 30 units to be distributed in the following way:
 - A. Minimum of nine units in chemistry lecture courses in the 500 series (excluding CHEM 595). These courses must be selected from at least two of the following fields: analytical, inorganic, organic, physical and biological chemistry;
 - B. Two units of CHEM 595;
 - C. One unit of CHEM 660, a maximum of 3 units of CHEM 697 and/or 695 and 4 to 6 units of CHEM 698;
 - D. Nine to 12 units from 400 and 500 series courses (excluding CHEM 595). The exact number of units depends on the number of 600-level courses taken. Changes in the above pattern of course requirements may be made only at the discretion of the Graduate Studies Committee and the graduate advisor.
3. Completion of an acceptable thesis.

Master of Science in Biochemistry (code CHEMMS02)

Prerequisites

1. Acceptance as a graduate student by the Chemistry and Biochemistry Department;
2. A bachelor's degree with a major in chemistry or one of the biological sciences. Prerequisite courses include CHEM 251, 320A,B, 377A,B, 441A,B, MATH 122,123, or their equivalents, and courses in general biology and cell/molecular biology. A student deficient in any of these courses must complete the course as a graduate student;
3. Entering graduate students are required to take placement examinations in analytical, biological, organic and physical chemistry. Any student failing to take and pass a placement examination in any of these subjects is required to enroll in an appropriate course. The courses usually designated are: CHEM 451 if the subject is analytical chemistry; CHEM 441A and/or 441B if the subject is biochemistry; CHEM 320A and/or 320B if the subject is organic chemistry; CHEM 371A and/or 371B; or 377A and/or 377B if the subject is physical chemistry.
4. The placement examinations are usually given on Monday and Tuesday of the week preceding the first day of instruction. Entering students should correspond with the Biochemistry Graduate Advisor before arrival to arrange to take these examinations. The Graduate Studies Committee evaluates the examinations and recommends appropriate courses to correct any deficiencies in chemistry or biochemistry. The Biochemistry Graduate Advisor will meet with the student at this time to prepare a tentative degree program.

Advancement to Candidacy

The Department recommends advancement to candidacy after the graduate student has:

1. Either passed the placement examinations in analytical, biological, organic and physical chemistry or passed courses recommended by the Graduate Studies Committee for correcting the deficiencies;
2. Earned at least a 3.0 ("B") average in all graduate work completed at this University;
3. Passed the Writing Proficiency Examination;
4. Obtained approval of a graduate degree program by the graduate advisor, the Department Chair (in consultation with the Graduate Studies Committee), Associate Dean for Graduate Accountability in the College of Natural Sciences and Mathematics, and the Dean of Graduate Studies.

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.

Requirements

1. Advancement to candidacy;
2. The completion of a minimum of 30 units with:
 - A. A minimum of nine units in chemistry lecture courses in the 500 series (excluding CHEM 595);
 - B. Three units of CHEM 595;
 - C. One unit of CHEM 660, a maximum of 3 units of CHEM 697, and 4 to 6 units of CHEM 698;

D. The following courses taken either prior to or during the course of this program: (1) CHEM 377A or 371A and CHEM 377B or 371B; (2) CHEM 443 and either CHEM 420 or 451; (3) at least one senior or graduate level course in cell/molecular biology or a related area. Credit earned in these courses may be included in the student's official program at the discretion of the Graduate Advisor.

E. Additional 400 and 500 level science courses (excluding CHEM 595) approved by the Graduate Advisor.

3. Completion of an acceptable thesis.

Changes in the above pattern of course requirements may be made only at the discretion of the Graduate Studies Committee and the Graduate Advisor.

Courses (CHEM)

Lower Division

100. Chemistry and Today's World (4)

Prerequisites: One course from the Foundation (GE categories A1, A2, A3, and B2). Introduction to the 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 202. (Lecture 3 hrs., laboratory 3 hrs.) Course fee required.

101. Introduction to General Chemistry (4)

Prerequisite: Two years of high school algebra. (This course is a prerequisite to CHEM 111A 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. Does not count for General Education. (Lecture 3 hrs., lab-problem session 3 hrs.) Course fee required. Letter grade only (A-F).

105. Chemistry Explorations (1)

Prerequisites: A general education math class, which may be taken concurrently. Central concepts of chemistry, including states of matter, atomic structure, periodic properties, chemical compounds and reaction energy, and equilibrium, illustrated with a series of experiments. Intended for students in the Integrated Teacher Education Program (ITEP). (Laboratory 3 hours). Course fee required.

111A. General Chemistry (5)

(Recommended for students who intend to pursue careers in science or engineering.) Prerequisite: A passing score on the Chemistry Placement Examination or credit in CHEM 101 within the preceding year; MATH 112 or higher (may be taken concurrently). One year of high school chemistry is strongly recommended. The first semester of a two semester sequence (CHEM 111A and 111B). Introduction to the principles of chemistry including chemical bonding, solution properties and chemical equilibrium and kinetics. (Lecture 3 hrs., laboratory and problem session 6 hrs.) Course fee required. (CAN CHEM 2)

111B. General Chemistry (5)

Prerequisite: CHEM 111A with a grade of "C" or better. The second semester of a two-semester sequence (CHEM 111A and 111B). Continuation of the study of chemical principles with application to inorganic systems. Includes application of modern bonding theories to inorganic molecules and study of trends and reactivities of the elements and their compounds. Qualitative inorganic analysis and extensive solving of aqueous equilibrium problems are emphasized in laboratory and problem solving sessions. (Lecture 3 hrs., lab and problem solving sessions 6 hrs.) Course fee required. (CAN CHEM 4)

202. Survey of General and Organic Chemistry (3)

Prerequisites: High school chemistry or equivalent. Three years of high school mathematics including intermediate algebra (or MATH 10) or the equivalent. The first semester of a two-semester sequence (CHEM 202 and 302) covering general and organic chemistry and biochemistry. CHEM 202 deals with general chemistry and organic chemistry. Not open for credit to students with credit in CHEM 111A. (Lecture 3 hrs.)

251. Quantitative Analysis (4)

Prerequisites: CHEM 111B with a grade of "C" or better. It is strongly recommended that CHEM 251 be taken within one calendar year of CHEM 111B. Introduction to the techniques and theory of gravimetric and volumetric analysis, spectrophotometry, potentiometry and chromatography. (Lecture 2 hrs., laboratory 6 hrs.) Course fee required.

Upper Division

302. Survey of Biochemistry (3)

Prerequisites: CHEM 202 with a grade of C or better and completion of GE Foundation requirements (GE categories A1, A2, A3, and B2). The second semester of a two-semester sequence (CHEM 202, 302). 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. (Lecture 2 hrs., laboratory 3 hrs.) Course fee required.

320A. Organic Chemistry (3)

Prerequisites: CHEM 111B with a grade of "C" or better. CHEM 251 is recommended. The first semester of a two-semester sequence (CHEM 320A and 320B). This sequence meets the requirements for medical and dental schools. Emphasis is upon the application of modern principles of structure, reactivity, methods of synthesis, physical properties and spectroscopy. (Lecture 3 hrs., discussion 1 hr.)

320B. Organic Chemistry (5)

Prerequisites: CHEM 320A with a grade of "C" or better. The second semester of a two-semester sequence (CHEM 320A and 320B). A continuation of the study of organic chemistry including the chemistry of compounds containing more than one functional group, bioorganic molecules and special topics. (Lecture 3 hrs., laboratory 6 hrs.) Course fee required.

327. Organic Chemistry (3)

Prerequisites: CHEM 111A with a grade of "C" or better; CHEM 111B is recommended. CHEM 202 may not substitute for CHEM 111A. Lecture course in the chemistry of the carbon compounds. Not applicable to a degree in chemistry. (Lecture 3 hrs.)

371A. Physical Chemistry (3) F

Prerequisite: CHEM 111B and 251 with a grade of "C" or better, MATH 224 (may be taken concurrently), PHYS 152. The first semester of a two-semester sequence (CHEM 371A and CHEM 371B). Principles and applications of classical thermodynamics. Introduction to statistical thermodynamics. (Lecture 3 hrs.)

371B. Physical Chemistry (3) S

Prerequisite: CHEM 371A with a grade of "C" or better. The second semester of a two-semester sequence (CHEM 371A and 371B) in physical chemistry. Introduction to quantum chemistry, spectroscopy and chemical kinetics. (Lecture 3 hrs.)

373. Physical and Inorganic Chemistry Laboratory (3) S

Prerequisites: CHEM 251, CHEM 371A,B or CHEM 377A,B (CHEM 371B or CHEM 377B may be taken concurrently), all with a grade of "C" or better. Introduction to basic techniques in inorganic synthesis and also physico-chemical experimental techniques with applications to the principles discussed in CHEM 371A,B and CHEM 377A,B. (Lecture 1 hr., laboratory 6 hrs.). Course fee required.

377A. Fundamentals of Physical Chemistry (3)

Prerequisites: CHEM 111B and 251 with a grade of "C" or better; MATH 123 (may be taken concurrently); PHYS 100B or 152. The first semester of a two-semester sequence. Principles of physical chemistry with emphasis on thermodynamics and chemical kinet-

ics. Examples from biological and environmental sciences will be used to illustrate principles. (Lecture 3 hrs.)

377B. Fundamentals of Physical Chemistry (3)

Prerequisite: CHEM 377A or 371A, each with a grade of "C" or better. The second semester of a two-semester sequence. Principles of physical chemistry with emphasis on molecular structure and spectroscopy. (Lecture 3 hrs.)

*420. Advanced Organic Chemistry Laboratory (3)

Prerequisites: CHEM 251 and CHEM 320B both with a grade of "C" or better. The synthesis and characterization of organic compounds. Analysis of organic structures through the interpretation of spectral data. Emphasis on the use of high field NMR, mass spectrometry, IR, and UV. Applications of modern separation techniques. In addition to regularly scheduled lectures, students are expected during the semester to attend three hours of lecture on use of the chemical literature. (Lecture 1 hr., laboratory 6 hrs.) Course fee required.

421./521. Physical Organic Chemistry (3) F

Prerequisites: CHEM 320B with a grade of "C" or better or pass the organic entrance exam; CHEM 371B or 377B (may be taken concurrently). (Undergraduates register in CHEM 421; graduates register in CHEM 521.) Theoretical interpretation of the chemical and physical properties of organic compounds including the following: mathematical derivations of rate equations from experimental results, calculations of reaction rate constants from experimental data, quantitative comparison of the reactivities of organic compounds, mathematical correlations of structure and properties. Practice in solving problems relating reaction mechanisms to the factors derived above. (Lecture 3 hrs.)

*431. Advanced Inorganic Chemistry (3) F

Prerequisites: CHEM 371B with a grade of "C" or better. Detailed quantitative study of chemical bonding in inorganic molecules with emphasis on molecular orbital theory. Extensive coverage of transition metal chemistry including coordination chemistry, ligand field theory, application of spectroscopy to structural analysis of inorganic molecules and a review of properties and reactivities of the elements and their compounds. (Lecture 3 hrs.)

*441A. Biological Chemistry (3)

Prerequisites: CHEM 320B with a grade of "C" or better; a biology or microbiology course is recommended. The first semester of a two-semester sequence (CHEM 441A and 441B) in biochemistry. A chemical and mathematical treatment of the energetics and kinetics of reactions in living systems, including the chemistry and metabolism of carbohydrates and the chemistry of proteins. (Lecture 3 hrs.)

*441B. Biological Chemistry (3)

Prerequisite: CHEM 441A with a grade of "C" or better. The second semester of a two-semester sequence (CHEM 441A and 441B) in biochemistry. Metabolism of lipids, proteins and nucleic acids and other advanced topics in metabolism. (Lecture 3 hrs.)

*443. Biological Chemistry Laboratory (4)

Prerequisites: CHEM 251 and 441B, both with a grade of "C" or better. Theory and practice of laboratory techniques used in biochemical research. (Lecture 1 hr., laboratory 9 hours.) Course fee required.

447. Clinical Chemistry (3)

Prerequisites: CHEM 251, 441A and 441B, all with grades of "C" or better (CHEM 441B may be taken concurrently). Methods of analysis and chemical properties of blood, urine, and other biological materials. (Lecture 1 hr., laboratory 6 hrs.) Course fee required.

448. Fundamentals of Biological Chemistry (3)

Prerequisites: CHEM 111A and 327, both with a grade of "C" or better. CHEM 201A or CHEM 202 may not substitute for CHEM 111A, and CHEM 201A-B or CHEM 202/302 may not substitute for CHEM 327. 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. (Lecture 3 hrs.)

449. Nutritional Biochemistry Laboratory (3)

Prerequisite: CHEM 448 with a grade of "C" or better. Analytical and biochemical analyses of foodstuffs and other compounds of biochemical interest. (Lecture 1 hr., laboratory 6 hrs.) Course fee required.

*451. Instrumental Methods of Analysis (4)

Prerequisites: CHEM 251 and 371A or 377A, all with a grade of "C" or better, or consent of instructor. Theory and application of instrumental methods to chemical problems. Techniques covered include the following: atomic and molecular absorption and emission, electroanalytical chemistry, techniques of separations, nuclear methods, and other modern methods of analysis. (Lecture 2 hrs., laboratory 6 hrs.) Course fee required.

466H. Research Design and Methods – Honors (3)

Prerequisites: BIOL 211A,B, either BIOL 260 or CHEM 251, CHEM 320A,B, all with a grade of "C" or better, and completion of the GE Foundation. A rigorous introduction to the following: i) hypothesis testing, experimental design, and regression modeling of biological data; ii) methodological and technical procedures for experimentation; and iii) techniques for written and oral presentation of research results to prepare students for undergraduate research. Research paper and oral presentation required. Same course as BIOL 466H. Letter grade only (A-F). (Lecture 3 hours.)

495. Colloquium in Chemistry (1)

Prerequisites: One semester of organic chemistry. Presentation of reports by students on original research or current literature. May be repeated for credit to a maximum of three units; only one unit may be counted toward the major requirement of the chemistry degree. An oral report is required. Letter grade only (A-F).

496. Special Problems in Chemistry (1-3)

Prerequisite: Consent of instructor. Problems selected for considered and mature analysis. A written report will be required. May be repeated to a maximum of six units (Independent Study).

498H. Senior Thesis – Honors (1-3)

Prerequisites: One unit of CHEM 496 and permission of instructor. Planning, preparation, and completion of a thesis based on a research project in chemistry or biochemistry. May be repeated for credit to a maximum of 3 units. Letter grade only (A-F). Not available to graduate students.

499. Directed Reading (1)

Thorough survey of the chemical literature on some topic of current interest under the supervision of a faculty member. Preparation of a written report based on this reading. Not open to graduate students.

Graduate Level

521./421. Physical Organic Chemistry (3) F

Prerequisites: CHEM 320B with a grade of "C" or better or pass the organic entrance exam; CHEM 371B or 377B (may be taken concurrently). (Undergraduates register in CHEM 421; graduates register in CHEM 521.) Theoretical interpretation of the chemical and physical properties of organic compounds including the following: mathematical derivations of rate equations from experimental results, calculations of reaction rate constants from experimental data, quantitative comparison of the reactivities of organic compounds, mathematical correlations of structure and properties. Practice in solving problems relating reaction mechanisms to the factors derived above. (Lec 3 hrs)

522. Special Topics in Organic Chemistry (3)

Prerequisite: CHEM 421 or 521 or consent of instructor. Areas of current interest in organic chemistry. Normally two of the following topics are treated. May be repeated with different topics to a maximum of 6 units. (Lecture 3 hrs.)

Natural Products:

Structure, biological activity, biogenesis and synthesis of selected naturally occurring compounds.

Organic Synthesis:

Modern synthetic reactions as demonstrated in recent syntheses of molecules of biological or theoretical interest.

Organophosphorus Chemistry:

Nomenclature, synthesis and reactivity of phosphorus-containing organic compounds. Emphasis is placed upon mechanisms of reactions of such compounds. Some discussion of the biochemistry of organophosphorus compounds will be given.

Photochemistry:

The effects of light absorption by organic compounds. Involves a study of the types and mechanisms of reactions, energy transfer, fluorescence and phosphorescence.

Kinetics and Mechanism:

A survey of methods of elucidation of reaction mechanisms. Theory and application of kinetics, isotope effects, acidity functions. Catalysis and linear free energy relationships may be included as related to molecular rearrangements, hydrolyses, hydration reactions and intra-molecular catalysis.

Bioorganic Mechanisms:

The application of mechanistic organic chemistry to the mechanism of action of biological compounds. Emphasis may center on drug action or enzyme catalysis.

Stereochemistry:

Molecular configurations, conformations and stereochemical effects in the organic reactions of carbon and heteroatom compounds.

Reactive Intermediates:

Organic chemistry of reactive intermediates such as carbenes, nitrenes and free radicals.

531. Advances in Inorganic Chemistry (3)

Prerequisite: CHEM 431 or consent of instructor. Current topics and advances in inorganic chemistry. May be repeated with different topics to a maximum of six units. (Lecture 3 hrs.)

Metallo-organic Chemistry:

Complexes of transition metals in low oxidation states, emphasizing structure of complexes and bonding, reaction types and homogeneous catalysis.

Physical Methods of Inorganic Chemistry:

A brief survey of the basic theoretical principles of the quantum mechanics of bonding, followed by an intensive discussion of modern physical techniques. Application of most physical methods to selected inorganic compounds will be discussed.

Mechanisms of Inorganic Reactions:

Inorganic reactions in aqueous solution, emphasizing the substitution mechanisms of octahedral complexes, types of electron-transfer reactions of complexes, application of Marcus-Hush theory and catalysis by transition metal complexes.

Bioinorganic Chemistry:

The role of inorganic chemistry in biology, emphasizing the chemistry of dioxygen and related species, metalloproteins (including superoxide dismutase, catalase, peroxidase, and cytochrome P450), Vitamin B-12, and inorganic models of their activity.

542. Special Topics in Biochemistry (3)

Prerequisites: CHEM 441B or consent of instructor. A detailed intensive discussion of a limited aspect of biochemistry with reference to current literature. Course content will vary from year to year. May be repeated for credit with consent of graduate advisor to a maximum of six units. (Lecture 3 hrs.)

544. Physical Biochemistry (3)

Prerequisites: Either CHEM 371B or 377B, or consent of instructor and CHEM 441B. Physical chemical aspects of protein and nucleic acid chemistry and related analytical methods. (Lecture 3 hrs.)

545. Enzymology (3)

Prerequisites: CHEM 371A or 377A and 441B, or consent of instructor. Detailed study of the mechanisms and kinetics of enzyme-catalyzed reactions and mechanisms of enzyme regulation. (Lecture 3 hrs.)

547. Biochemistry of Nucleic Acids (3)

Prerequisites: CHEM 441A and 441B or consent of instructor. A detailed treatment of gene expression with emphasis on regulatory

mechanisms. Analytical techniques for isolation, purification, and characterization of nucleic acids. (Lecture 3 hrs.)

548. Cell Membranes (3)

Prerequisites: CHEM 441A, BIOL 370 and BIOL 340. An in-depth examination of modern membrane biochemistry geared toward the graduate student and qualified senior undergraduate. Topics may include membrane structure, phospholipid biosynthesis and transport, organelle biogenesis, membrane protein and phospholipid sorting, membrane transport, vesicular transport, membrane coat protein structure and function, and membrane-dependent signal transduction. Letter grade only (A-F). (Lecture 3 hrs.)

552. Special Topics in Analytical Chemistry (3)

Prerequisite: CHEM 451 or consent of instructor. Selected topics including electrochemical measurements, chromatographic techniques, spectroscopic techniques (molecular and atomic absorption and emission), radiochemical analysis and basic electronic components of instrumentation. Emphasis will be placed on an in-depth understanding of the chemical principles involved, along with the utility and limitations of each method. Other topics include trace analysis by electrochemical methods and instrumental analysis of water and air pollution control. May be repeated with different topics to a maximum of six units. (Lecture 3 hrs.)

572. Advanced Physical Chemistry (3)

Prerequisite: CHEM 371B or consent of instructor. Special topics in physical chemistry. May be repeated with different topics to a maximum of six units. (Lecture 3 hrs.)

Group Theory:

Group theory and its application in chemistry. Topics covered will include hybridization, molecular orbital theory, crystal and ligand field theories and molecular vibrations.

Spectroscopy and Molecular Structure:

The use of spectroscopic methods to elucidate molecular structure. Topics covered will include microwave, infrared, visible, ultraviolet, Raman, nuclear magnetic resonance, electron spin resonance, nuclear quadrupole and Mossbauer spectroscopy.

Dynamics of Chemical Reactions:

Review of phenomenological kinetics equations; methods of elucidating complex photochemical and thermal gas phase reaction mechanisms; theoretical approaches to physico-chemical reactions including the RRKM method and quantum mechanical scattering; applications of kinetics to the various fields of chemistry.

595A. Colloquium in Biochemistry (1)

595B. Colloquium in Organic Chemistry (1)

595C. Colloquium in Analytical, Physical and Inorganic Chemistry (1)

Prerequisite: Graduate standing or consent of instructor. Discussion of advances in chemistry as reported in recent literature. Designed to give experience in library use, organization and presentation and critical evaluation of the chemical literature. May be repeated for credit, but not more than a total of three units may be earned in any combination of CHEM 595 courses. (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. (Seminar 1 hr.) Credit/No Credit grading only. Course may be repeated to a maximum of 2 units.

695. Directed Reading (1)

Survey of the information in chemical literature on a current research topic, under the direction of a faculty member. Preparation of a written report based on this reading.

697. Directed Research (1-3)

Prerequisite: Arrangement with instructor. Laboratory work supervised on an individual basis. A written report will be required. May be repeated for credit.

698. Research and Thesis (1-6)

Prerequisites: Arrangement with instructor. Planning, preparation and completion of a thesis in chemistry or biochemistry.

CHEMICAL ENGINEERING

College of Engineering

Department Chair

Lloyd Hile

Department Office

Engineering EN 2-101

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Website

<http://www.csulb.edu/coe/che>

Faculty

Professors

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Ashok Naimpally

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Lloyd Hile

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Chemical engineers apply their knowledge of chemistry and engineering to make useful products that improve the quality of our lives. Industries employing our graduates include fuels, chemicals, polymers, microelectronics, biotechnology, environmental, aerospace, food, consumer products, design and construction. The chemical engineering curriculum provides a thorough background in chemical and physical science, mathematics, and engineering for application to the solution of technical problems encountered in the development, operation, design, and support of a diverse variety of industries.

Educational Mission and Objectives

The Chemical Engineering Department at California State University, Long Beach is a practice-oriented program that aims to develop well-trained professionals who will be successful in their careers and prepared for further advanced studies.

In order to achieve this, the program strives to:

- Provide students the technical foundations to become competent, practicing chemical engineers. Students learn to apply their knowledge of scientific principles to problem identification and solution, to conduct and analyze experi-

mental work, and to design processes and systems to meet specified objectives using modern tools and technologies.

- Prepare students to be successful in their future workplace relationships. Students develop effective communication skills, gain abilities to function productively in teams, and obtain the foundation to support lifelong learning to promote personal and professional growth.

- Instill in students an understanding of their professional and ethical responsibilities and create awareness of the societal impact that their professional activities may have.

- Continuously improve the academic program in partnership with industry, alumni, and government.

Chemical Engineering Professional Advisory 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 EAC (Engineering Accreditation Commission) of ABET (Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202, website: www.abet.org). Students enrolling in our program must see an undergraduate advisor as early as possible to ensure conformity with ABET requirements.

Other Related Programs

Students interested in obtaining a Minor in Environmental Engineering should refer to the College of Engineering 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. Graduate study leading to the MSE can be tailored to the goals of a student with a background in chemical engineering by taking advanced course work in the interfacing areas of chemistry, civil engineering (environmental area), electrical engineering (control area), computer engineering (microelectronic device area), mechanical engineering (thermal, fluids, and materials areas) and mathematics in addition to chemical engineering. Thesis work may be supervised by chemical engineering faculty. Detailed requirements for the MSE are specified in 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.

Bachelor of Science In Chemical Engineering (code CHE_BS01) (130 units)

Requirements

Lower Division: CH E 200, 210, 220; CHEM 111A, 111B; one course from CHEM 251, BIOL 211A, or MICR 200; C E 205; E E 211; ENGR 101; MATH 122, 123, 224; PHYS 151; PHYS 152 (or E E 210 and 210L).

Upper Division: CH E 320, 330, 410, 420, 430, 440, 450, 460, 470; (CHEM 320A, B) or (CHEM 327 and an approved laboratory science); CHEM 377B; MATH 370A; six units from CH E 300, 385, 415, 425, 435, 436, 437, 445, 455, 465, 475, 480, 485; an ECON course or C E 406; three units of approved engineering electives or pass the FE exam.

Courses (CH E)

Lower Division

200. Chemical Engineering Fundamentals (3)

Prerequisites: CHEM 111A, MATH 123, PHYS 151. Dimensional analysis of units, steady and transient balances of mass, momentum and energy, the mathematical solution of chemical engineering problems. (Lecture-problems 3 hrs.)

210. Computer Methods in Chemical Engineering (3) F

Prerequisites: CHEM 111A, MATH 122, PHYS 151. Beginning programming and techniques of numerical analysis applied to typical problems in chemical engineering. (Lecture-problems 2 hours, laboratory 3 hours.)

220. Chemical Engineering Thermodynamics I (3) S

Prerequisite: CH E 200. Applications of the first and second laws of thermodynamics to chemical processes. Concepts of heat, work, and energy. Energy balances in batch and flow processes, with and without chemical reaction. Gas behavior, phase change, vapor pressure, humidity. (Lecture-problems 3 hours)

Upper Division

300. The Chemical Industry (3)

Prerequisites: CH E 200, CHEM 320A or consent of instructor. 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-problems 2 hr, lab 3 hrs.)

320. Fluids (3) S

Prerequisites: CH E 200, C E 205. Study of the deformation and flow of fluids, both liquids and gases, with applications to chemical engineering. (Lecture-problems 3 hours.)

330. Separation Processes (4) F

Prerequisites: CH E 210, 220. Computation methods for predicting the separation of materials by distillation, absorption, extraction and other methods. (Lecture-problems 3 hours, lab 3 hrs.)

*385. Manufacture of Microelectronic Devices (3)

Prerequisites: CHEM 111A, PHYS 152, and ENGR 223 or consent of instructor. Application of diffusion, oxidation, reaction rate, heat transfer and surface science to semiconductor and secondary processing. Processes include film growth, chemical vapor deposition, ion implantation and surface alloying, microlithography, etching, metalization, coating and adhesion. Numerically-controlled machining and computer modeling. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

410. Chemical Engineering Thermodynamics II (3) F

Prerequisites: CH E 210, 220. 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.)

415./515. Occupational and Environmental Safety Engineering and Management (3)

Prerequisite: CHEM 327 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.)

420. Heat and Mass Transport (3) F

Prerequisite: CH E 210, 320; CHEM 377B. Heat exchange by conduction, convection and radiation. Diffusion in fluids and solids. Simultaneous heat and mass transport. (Lecture-problems 2 hours, laboratory 3 hours.)

*425. Polymer Synthesis and Characterization (3)

Prerequisite: CHEM 320A or consent of instructor. Physical and chemical concepts in the production of polymers. Relation of the chemical structure to bulk properties of plastics. Laboratory synthesis of polymers and their mechanical, thermal and molecular characterization. (Lecture-problems 2 hours, laboratory 3 hours.)

430. Chemical Reactor Kinetics (3) F

Prerequisites: CHEM 377B. Homogeneous and heterogeneous reactions and application to reactor design, catalysts. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*435. Chemical and Electrochemical Manufacturing Processes (3)

Prerequisites: MAE 322, 330; or CHEM 371A or consent of instructor. Theory of electrochemical processing. Electroplating and electroless plating solutions, processes and equipment. Anodizing and other surface treatments. Carburizing, nitriding atmospheres and equipment. Diffusion in solids. The effect of surface treatments on mechanical properties. Same course as MAE 425. (Lecture-problems 3 hours.) Letter grade only (A-F).

*436. Corrosion Engineering (3)

Prerequisites: MAE 322 or CHEM 371A or consent of instructor. Principles of oxide film growth and electrochemical corrosion, corrosion testing, environmental and metallurgical effects on corrosion, environmental stress cracking, corrosion control and prevention. (Lecture-problems 3 hours.) Letter grade only (A-F).

437./537. Materials Purification Processes (3)

Prerequisite: CH E 330, 420, 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).

*440. Chemical Engineering Laboratory I (2) F

Prerequisites: CH E 220, 320, 330. Laboratory study of fluid mechanics, separation processes and thermodynamics. Experimental design and analysis and preparation of engineering reports. (Laboratory 6 hours.)

445./545. Pollution Prevention (3)

Prerequisite: CH E 330. Overview of pollution prevention strategies in chemical industry and related industries. Hierarchical approach of minimizing industrial wastes and pollutants. Discussions of life cycle analyses of wastes, identifying and prioritizing pollutants from industrial sites, selecting environmentally compatible materials, design of unit operations for minimizing waste, economics of pollution prevention, and computer-aided process flowsheeting for minimizing waste. Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hours.) Letter grade only (A-F).

*450. Chemical Engineering Laboratory II (2) S

Prerequisites: CH E 410, 420, 430, 440; prerequisite or corequisite: CH E 460. Laboratory study of heat and mass transport, chemical kinetics and control theory. Experimental design and analysis and preparation of engineering reports. (Lab 6 hours.)

455./555. Environmental Compliance (3)

Prerequisite: CHEM 327 or consent of instructor. Physical and chemical properties of hazardous materials and wastes. Environmental hazards. An examination of environmental laws, regula-

tions 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.)

***460. Chemical Process Control (3) S**

Prerequisites: CH E 420; MATH 370 A. Control theory and practice, instrumentation, system responses, transfer functions, feed-back control, and stability as applied to chemical engineering processes. (Lecture-problems 2 hours, laboratory 3 hours.)

465./565. Biochemical Engineering (3)

Prerequisite: CH E 200, 330, 430, and life science course(s) with instructor's approval. Microbial physiology and genetics. Chemicals of life. Metabolic stoichiometry and energetics. Kinetics of enzyme-catalyzed reactions. Kinetics of substrate utilization, product formation and biomass production. Design and analysis of bioreactors. Product recovery operations. Bioprocess economics. Applications to natural systems wastewater treatment, and biohydrometallurgy. Extra requirements for graduate students: term papers and laboratory projects on biomass production, microbial enhanced oil recovery or metal recovery. (Lecture-problems 3 hrs)

***470. Chemical Engineering Design (4) S**

Prerequisites: CH E 220, 330, 420, 430; CHEM 320A. Design based upon economics and chemical engineering design and analysis. (Lecture-problems 3 hours, problem-design session 3 hrs.)

***475. Environmental Pollution (3)**

Prerequisites: CHEM 111A-B. Recommended: Chemistry 320A, 371A. Application of chemistry to the problems of pollution. (Lecture-problems 3 hours.)

480./580. Theoretical Methods in Chemical Engineering (3)

Prerequisites: CH E 420, 430. 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.)

485./585. Air Pollution (3)

Prerequisites: CH E 475 or CE 364 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 hours)

490. Special Problems (1-3)

Prerequisite: Consent of instructor. Assigned topics in technical literature or laboratory projects and reports on same.

Graduate Courses

510. Multiphase Flow and Interfacial Phenomena (3)

Prerequisites: CH E 320 or consent of instructor. Equation of motion in multiphase systems such as slurries and fluidized beds involving bubbles, drops, and particles. Effects of interfacial tension, particle-surface and interparticulate interactions. (Lecture-Problems 3 hours) Letter grade only (A-F).

515./415. Occupational and Environmental Safety Engineering and Management (3)

Prerequisite: CHEM 327 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.)

520. Advanced Transport Phenomena (3)

Prerequisites: CH E 320, 420, 430. 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)

Prerequisites: CH E 430. 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).

537./437. Materials Purification Processes (3)

Prerequisites: CH E 330, 420, 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: CH E 330. Overview of pollution prevention strategies in chemical industry and related industries. Hierarchical approach of minimizing industrial wastes and pollutants. Discussions of life cycle analyses of wastes, identifying and prioritizing pollutants from industrial sites, selecting environmentally compatible materials, design of unit operations for minimizing waste, economics of pollution prevention, and computer-aided process flowsheeting for minimizing waste. Extra requirement for graduate students: term papers or projects. (Lecture-problems 3 hours.) Letter grade only (A-F).

555./455. Environmental Compliance (3)

Prerequisite: CHEM 327 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.)

565./465. Biochemical Engineering (3)

Prerequisite: CH E 200, 330, 430, and life science course(s) with instructor's approval. Microbial physiology and genetics. Chemicals of life. Metabolic stoichiometry and energetics. Kinetics of enzyme-catalyzed reactions. Kinetics of substrate utilization, product formation and biomass production. Design and analysis of bioreactors. Product recovery operations. Bioprocess economics. Applications to natural systems wastewater treatment, and biohydrometallurgy. Extra requirements for graduate students: term papers and laboratory projects on biomass production, microbial enhanced oil recovery or metal recovery. (Lecture-problems 3 hrs.)

580./480. Theoretical Methods in Chemical Engineering (3)

Prerequisites: CH E 420, 430. 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.)

585./485. Air Pollution (3)

Prerequisites: CH E 475 or CE 364 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)

697. Directed Research (1-3)

Prerequisites: 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 total of 6 units.

CHICANO AND LATINO STUDIES

College of Liberal Arts

Department Chair

Luis Arroyo

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Students desiring information should contact the department office for referral to the academic advisor:

Academic Advisor

Anna Sandoval

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Chicano and Latino Studies courses are designed to train students to work effectively in multicultural settings, to enhance their analytical and technological skills, and to provide them a profound understanding of the Chicano and Latino experiences in the United States. The department offers programs to serve the interests and goals of (1) those entering a variety of occupations including urban studies, government, journalism, social work, school administration, business, criminology, law, foreign service and other related areas; (2) teachers, counselors, administrators; (3) majors in other fields such as history, sociology, psychology, economics, literature, anthropology, who wish to include additional scope to their field of study.

Bachelor of Arts in Chicano and Latino Studies (code CHLSBA01) (120 units)

Requirements

Lower Division (6 units): Core Courses CHLS 100 or 101; and CHLS 105. Students will choose one course between CHLS 100 and 101. CHLS 105 is required.

Upper Division (33 units) Core Course (12 units required): CHLS 300, 310, 350, 498.

Upper Division (continued): 21 units of electives from Cultural Studies courses: CHLS 390I, 395, 420, 490, 499; and Social Inquiry courses: CHLS 319, 340, 352, 362, 415, 421, 470I, 490, 499.

Departmental Requirement: Two years of college Spanish. If student is proficient in Spanish, the two years' requirement may be met by successful completion of proficiency examination.

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 12 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 academic advisor.

The Special Track consists of 39 units total, 30 of which must be upper division, including the following:

Lower-division: CHLS 100 or 101 and 105.

Upper-division: CHLS 300, 310, 350, 498.

Special Track: A maximum of 12 units of upper division course work from related fields, selected with the approval of the Chicano and Latino Studies Department advisor.

Language Requirement: Two years of college Spanish. If student is proficient in Spanish, the two years' requirement may be met by successful completion of proficiency examination.

Minor in Chicano and Latino Studies (code CHLSUM01)

A prerequisite to taking this minor is the successful completion of two Spanish courses recommended by the Chicano and Latino Studies Department advisor or the successful completion of an intermediate Spanish proficiency examination.

Requirements

Upper Division: a minimum of 24 units distributed as follows: 12 units of core requirements: CHLS 300, 310, 350, 498; 12 units selected from Cultural Studies courses: 390I, 395, 420, 490, 498, 499; and Social Inquiry courses: 300, 310, 319, 340, 350, 352, 362, 415, 421, 470I, 490, 498, 499.

Graduate Certificate in Chicano and Latino Studies (code CHLSCT01)

The Chicano and Latino Studies Department has established a program which offers students interested in this field the opportunity to pursue courses leading to a certificate in Chicano and Latino Studies. Courses used to meet this certificate requirement may be counted also, where applicable, toward the General Education requirements and the degree or credential requirements of the cooperating departments.

Requirements

1. A bachelor's degree with a major in another discipline;
2. A minimum of 24 units distributed as follows: 12 units of core requirements: CHLS 300, 310, 350, 498; 12 units selected from Cultural Studies courses: 390I, 395, 420, 490, 498, 499; and Social Inquiry courses: 300, 310, 319, 340, 350, 352, 362, 415, 421, 470I, 490, 498, 499.

Courses (CHLS)

Lower Division

1. Bilingual Communication Skills-English (3)

Basic fundamentals of English communication for students of bilingual background. Credit/no credit only. Counts as part of student's course load but does not carry graduation credit.

100. Introduction to Chicano Studies (3)

This is an introductory-level course designed with two goals in mind. The first is to acquaint students with the most important social, political, economic and historic aspects of the Chicano experience in the United States. The second goal is to discuss these aspects in relationship to their historic relevance to contemporary and future Chicano society. Letter grade only (A-F).

101. Introduction to Chicano Life (3)

Prerequisite or Corequisite: One course from GE category A1. This course is designed to introduce students to the study of Chicano culture and society in the Southwest U.S. from 1540 to the 1980. The course will emphasize three topics: 1) The cultural formation and transformation of Chicano communities; 2) The relationship between culture and identity; 3) The dynamic role of women in shaping Chicano culture. Letter grade only (A-F).

104. Bilingual Communication Skills-English (3)

Prerequisite: A recorded total score of 151 or above on the English Placement Test, or credit in CHLS 1 (or its equivalent) and consent of the instructor. Advanced fundamentals of English communication for students of bilingual background. Letter grade only (A-F).

105. Identity and Assimilation in Chicano Life (3)

Prerequisite or Corequisite: One course from GE category A2. An interdisciplinary introduction to the study of cultural and historical issues that have influenced formation of Chicano communities

from pre-Columbian times to the present. Evolution of Chicano identity examined through survey of Mexican-American regional cultures and development of societal divisions based on gender, race, and class categories. Letter grade only (A-F).

150. Introduction to Chicano Literary Studies (3)

Prerequisite or 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 to students with credit in CHLS 205.

215. U.S. Diversity and the Ethnic Experience (3)

Prerequisites: The course is open only to Integrated Teacher Education Program students. This course is a 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 is given to the formation and transformation of each ethnic group and their individual and collective roles in the development of the United States. Same course as AIS 215, ASAM 215, B/ST 215. The departments take turns offering the course in the Fall semester. Letter grade only (A-F).

230. Chicano Community Organization (3)

Analysis of Chicano community groups; emphasis on development of community organizational techniques.

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. Chicano History (3)

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.

310. Chicano Thought (3)

Study of the ideas, philosophies and events affecting Chicano life; identification and examination of the Chicano world view, of a Chicano reality.

319. The Ethnic Experience in the U.S. (3)

An 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 AIS 319, ASAM 319, B/ST 319, W/ST 319. (Lecture/Discussion.)

335I. Asian and Latino Immigration since World War II (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Analyzes the causes of a dramatic post-World War II shift in immigration from Europe to Asia and Latin America, immigrants' settlement and adaptation patterns, and the Asian and Latino communities' social, racial, political and economic impact on American society. Same course as ASAM 335I. (Lecture and discussion, 3 hours)

340. Latino Education in the U.S. (3)

A theoretical and empirical examination of Latino educational issues in the United States. Special emphasis is placed on disentangling the effects of ethnicity, gender, class and immigrant status on educational attainment and achievement. A critical understanding of how historical, social, political, and economic forces impact on Latinos/as with regard to their experience in the educational system. Letter grade only (A-F).

350. The Latino Population in the United States (3)

Survey of the most recent socio-economic information on "Hispanics," issues of immigration and settlement patterns, employment and income, family, language and culture will be examined. Particular attention will be paid to the changing points at which racism has intersected with factors of class and gender. This is a comparative course designed to highlight heterogeneity of the larger Latino aggregate population. Letter grade only (A-F). Same course as 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 of California: Salvadorans, Guatemalans, Puerto Ricans, Cubans, etc. Not all groups will necessarily be dealt with each time the course is offered. Similarities with and differences from the Mexican American community will be examined. Same course as SOC 341.

362. Chicanos and the Law (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).

390I. The "Hispanic" Southwest: Historical and Literary Images (3)

Prerequisites: Completion of 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.

395. Latino Cultural Images in Film (3)

Critical, interdisciplinary examination of selected Latino cultural traits and values as these are depicted in motion pictures, documentaries, and other types of film.

403. Asian American and Chicano/Latino Cinema (3)

Prerequisites: Completion of the Foundation courses, at least one Explorations course, and upper division status. This course is a team-taught class that explores the connections between Asian American and Chicano/Latino film. It is designed to examine the politics of representation in mainstream releases and independent films and videos by artists of color. Special attention will be paid to themes of collectivity, sexuality, racialized gender, race, and class formations, and social transformations. Emphases will be given to grounding issues presented in films within historical, literary, and cultural studies frameworks. Letter grade only (A-F). Same course as ASAM 403.

415. Latina Women in the United States (3)

Prerequisite: Junior standing or permission of the instructor. This course will examine the cultural, political, economic, and sexual forces that mold Latina women. The first section of the course will focus on cultural stereotypes and responses to these stereotypes by Latina women scholars. The second section of the course will focus on Latina class differences and the politics of race. This will provide an overview of the contemporary public policy issues affecting Latinas and the broader Latino community. The contradictions that are identified in this course segment will be juxtaposed against selected African American perspectives to identify areas of symmetry as well as areas of divergence in the domain of political strategizing for political reform and Latina empowerment. The last section of the course will address issues of gender identity and sexuality that challenge, undermine, and strengthen the position of Latina women in the greater society. Same course as W/ST 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 with a view to understanding the Chicano heritage.

421. Street Gangs in Comparative Perspective (3)

This course addresses the contemporary issue of street gangs within the Chicano/Latino community. It analyzes the relationships across the United States of the Chicano gangs with African American gangs, the South East Asian gangs and the White (PUNKERS, Heavy Metalists and Skinheads)-- street gangs. Structural forces of the urban societies, such as proletariat socialization, patriarchy traditions and problems revolving around gender identity are examined. Through theory and a historical analysis, the basis for addressing this contemporary subject is set. This course is a comparative study of youth behavior using both a public health model and a criminal justice model. Letter grade only (A-F).

450I. Consequences of the Encounter: The Americas, Europe, and Africa (3)

Prerequisites: Completion of the GE Foundation requirement, completion of one or more Exploration courses and upper-division status. The study of the consequences of the encounter between Africa, Europe, and the Americas from the voyages of Columbus to contemporary times. Through several disciplines: Art, Literature, and the Social Sciences the course examines the complex results of the encounter in respect to the obliteration, suppression and creation of culture among the peoples of both the Old and New Worlds. Same course as RGR 450I.

470I. Latinas/Latinos: Health Status and Health Care Access (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing. This course is a critical interdisciplinary examination of the health status and health care access of Latinos in the United States. The primary objective of the course is to provide an overview of the policies, epidemiologic, and cultural factors that influence the etiologies of disease within Latino subpopulations. This cross disciplinary approach will also be used to analyze the health care problems faced by Latino subpopulations that constrain efficient management of services and equitable delivery of health care. Letter grade only (A-F). Same course as HCA 470I.

490. Special Topics in Chicano Studies (1-3)

Prerequisite: Consent of instructor. Topics of current interest in Chicano and Latino Studies selected for intensive development. May be repeated for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

D. Academic Conferences

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. May be repeated with different topics to a maximum of six units, but no more than three units may be used to satisfy the requirements for the majors. Letter grade only (A-F). Course may be repeated for a maximum of 6 units.

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.

CIVIL ENGINEERING

College of Engineering

Department Chair

Joseph M. Plecnik

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Faculty

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Joseph M. Plecnik

Chan-Feng (Steve) Tsai

William H. Ying (Emeritus, 1998)

Associate Professor

Emelinda M. Parentela

Undergraduate Advisors

Emelinda M. Parentela

William H. Ying

Graduate Advisor

Peter A. Cowan

General Education Advisors

Emelinda M. Parentela

William H. Ying

Administrative Support Coordinator

Robin Ikemi

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring detailed information should contact the department office for referral to one of the faculty advisors. The Department of Civil Engineering provides students with a broad educational background essential to modern civil engineering practice and research. The program is built around a basic core of mathematics, natural and engineering sciences common to accredited professional engineering programs. It is planned to give a selection of basic engineering-science and design education to enable the graduate to begin a career in any of the various fields of practice in civil engineering or to prepare for graduate study in related engineering majors. It makes possible a systematic and integrated foundation in the principles of structural analysis and design, transportation systems, environmental systems, geotechnical engineering, water resources engineering, materials, construction engineering management, and information technology. Opportunity to explore a particular area of interest is offered in the wide selection of civil engineering design electives to permit students a sequence of courses related to the area of their choice.

The four engineering buildings house laboratory facilities in fluid mechanics and hydraulics, materials of construction, geotechnical engineering, earthquake engineering and structures, engineering mechanics, surveying, urban and environmental engineering. The Department of Civil Engineering offers graduate study programs leading to the degrees of master of science in civil engineering (M.S.C.E.) and the advanced degree of civil engineer (C.E.). These programs provide opportunities for graduate students to develop as civil engineers capable of competent research, design, and application through integrated curricula of engineering and science while permitting a concentration in the student's area of interest. Areas of specialization include: construction engineering management, environmental engineering, water resources engineering, geotechnical engineering, structural engineering, and transportation engineering.

Additional information concerning the programs, special facilities, laboratories and research possibilities is contained in the Civil Engineering Department brochures. The department actively participates in MSE programs of interdisciplinary nature with course offerings and theses/directed studies in management engineering, safety engineering systems, and structural mechanics.

Some graduate laboratory, teaching and research assistantships are available to qualified graduate students. Applications should be sent to the department chair.

Advisory and Development Council

The Department of Civil Engineering is supported by an Advisory and Development Council consisting 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.

ABET Accreditation

The Bachelor of Science in Civil Engineering is accredited by the EAC (Engineering Association Commission) of the Accreditation Board for Engineering and Technology (ABET) (Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710, website: <http://www.abet.org>). Students enrolling in this program are strongly advised to get in touch with an undergraduate advisor as early as possible to know the details of the ABET requirements in math/sciences, humanities and social sciences areas and engineering sciences and design.

Bachelor of Science in Civil Engineering (code CE__BS01) (131 units)

Mission

To educate and prepare students to succeed in the civil engineering profession by providing them with essential technical tools and skills which will enable them to perform current and future civil engineering tasks and to promote the need for life long learning.

Objectives

1. Graduates will have the necessary analytical and experimental skills to perform in the civil engineering profession.
2. Graduates will be prepared to apply the theory and experimental tools to the solution of practical design problems.
3. Graduates will be provided with the knowledge to understand the role of civil engineers in the global and societal contexts and to recognize the need for life long learning.
4. Graduates will be educated in the potential ethical and social implications in civil engineering practice and foster communication and interaction skills with other professionals and community at large.

Requirements

A grade of "C" or better must be achieved in all prerequisites for all Civil Engineering courses.

Lower Division: BIOL 200 or MICR 200; CHEM 111A; CE 225, 205, 206; MATH 122, 123, 224; MAE 172; PHYS 151, 152 (or EE 210 and 210L).

Upper Division: GEOL 370; CE 300, 335, 345, 346, 359, 364, 406, 407, 426, 437, 459, 481, 490; ECON 300; MATH 370A; MAE 330, 371, 373; six units of technical design electives from: CE427, 438, 445, 455, 456, 457, 466, 495; two laboratories from: CE 336, 491, MAE 374; three units of technical electives from: CE 429, 435, 446, 458.

Master of Science in Civil Engineering (code CE__MS01)

Prerequisites

1. A bachelor's degree in an accredited curriculum in civil engineering; or
2. A bachelor's degree in engineering, a natural science or other appropriate discipline with the requirement that essential undergraduate prerequisites in civil engineering be satisfied with a minimum GPA of 2.7 in the last 60 semester units attempted;

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.

Advancement to Candidacy

1. Removal of all undergraduate deficiencies as determined by the Department Graduate Studies Committee;
2. Completed at least 12 graduate units at CSULB; minimum GPA of 3.0; currently enrolled;
3. Passing the Writing Proficiency Examination.

Requirements

Completion of a minimum of 30 units beyond the bachelor's degree and graduate coursework as follows:

1. A minimum of 24 units in engineering, probability and statistics and mathematics courses with 18 units of 500-/600-level courses in Civil Engineering. Within these 18 units a student may include six units of CE 698 or three units of CE 697; Students are required to complete successfully either CE 697 or CE 698;
2. Six units of electives selected from approved upper-division or graduate courses in appropriate subjects;
3. Fulfill one of the following alternatives:
 - I - Write and present orally a thesis to be approved by the thesis committee;
 - II - Pass a written comprehensive examination on coursework in the student's program.

Civil Engineer Degree (code CE__CE01)

The program leading to the Civil Engineer degree offers the qualified student professionally oriented courses with greater concentration in civil engineering than is required by the master of science in civil engineering. This program encourages appropriate advanced studies in other disciplines of the University.

Prerequisites

1. A master of science degree in civil engineering from an accredited institution with a minimum GPA of 3.5; or
2. A bachelor of science degree in civil engineering from an accredited institution with a minimum GPA of 3.0; or
3. A bachelor of science degree in engineering, mathematics, physical sciences or other appropriate disciplines from an accredited institution with a minimum GPA of 3.0 with the requirement that essential undergraduate prerequisites in civil engineering will be satisfied prior to commencing the student's civil engineering degree program;
4. The graduate student must consult with the graduate advisor and Civil Engineering Department graduate brochure for information concerning departmental procedures and requirements and for appropriate approvals of the course of study prior to enrolling in courses in the student's graduate program.

Exceptional cases not meeting the above minimum GPA may be considered by the Department Graduate Studies Committee.

Advancement to Candidacy

1. A Department Graduate Studies Committee, consisting of the graduate student's advisor and at least two other faculty members, will be responsible for the formulation and supervision of each individual graduate student's program;
2. The committee shall determine candidacy admission, and requirements as to removal of undergraduate and/or graduate prerequisite deficiencies;
3. Prior to determining advancement requirements the committee may, at its discretion, require the student to take an examination in the chosen area.

Requirements

1. Completion of a minimum of 60 units beyond the bachelor's degree and graduate courses, approved by the student's Department Graduate Studies Committee including:
 - a. A minimum of 36 units of 500- and 600-level civil engineering courses including a thesis of nine units to be written and presented orally;
 - b. Twenty-four units of 400-, 500- and 600-level approved electives.
2. No more than 30 units completed before advancement to candidacy may be used in completing the requirements for the CE degree.

Certificate in Waste Engineering and Management (code CE__CT01)

The 24-unit Certificate Program in Waste Management is designed to provide the interested student or qualified practitioner with the very latest in education and training in the field of management of waste as well as related resource and energy recovery.

The program is conducted in cooperation with local engineering consulting firms and government agencies and could accommodate an internship of three units through directed study (CE 697).

The 24-unit certificate program may be taken (1) by a graduate as a matriculated student, (2) admitted to a CSULB graduate degree program, or admitted as an unclassified graduate student.

Regardless of how the program is taken, a grade of "C" or better must be obtained in all courses applied to the certificate, with an overall G.P.A. of 3.0. Courses taken on Credit/No Credit or Audit basis will not apply to the certificate. Graduate students taking courses in this program are reminded that grades received will be included in calculations of the M.S. requirement.

Requirements

1. Completion of an accredited baccalaureate degree in engineering or a related scientific discipline, with appropriate prerequisites to be met.
2. Satisfactory completion of 24 units which must include 15 units selected from C E 531, 543, 565; Public Policy and Administration 590 (Waste Management and Policy Regulation); a minimum of nine units (electives) selected from the following: C E 504, 562, 563, 564, 566, 567, 569; CH E 555, and 585.. At least one course should normally be from non-Civil Engineering offerings.

3. Passing score in WPE.

4. File a program application card with Admissions and Records, and file for the Certificate at least one semester prior to completion.

Courses (C E)

Lower Division

205. Analytical Mechanics I (Statics) (3)

Prerequisite: PHYS 151. Prerequisite or corequisite: MATH 123. Application of the mechanics of equilibrium to force systems using analytical and graphical solutions of problems involving structures and machines. (Lecture-Problems 3 hours.) (CAN ENGR 8)

206. Computer Programming and Civil Engineering Applications I (2)

Prerequisites: MATH 122, PHYS 151. Introduction to Fortran programming and application of computers to elementary civil engineering problems. (Lecture-Problems 1 hour, Laboratory 3 hours.)

225. Surveying and Mapping (2)

Prerequisites: MAE 172. Theory and practice of plane surveying, including the use of instruments, measurements and keeping field notes of distances, angles, elevations, traversing and plane tabling. Plotting of surveying data as related to profiling contours and topography. Study and interpretation of maps relating to civil engineering. (Lecture-Problems 1 hour, Fieldwork 3 hours.) (CAN ENGR 10)

Upper Division

300. Materials for Civil Engineering (2)

Prerequisites: CHEM 111A, PHYS 151. Prerequisite or corequisite: CE 205. Basic properties of materials in civil engineering, including concrete, masonry, steel, wood, asphalt and composites. (Lecture 1 hour, Laboratory 3 hours.) Letter grade only (A-F).

306. Computer Programming and Civil Engineering Applications II (2)

Prerequisite: CE 206. Application of numerical methods and computer programming to the solution of civil engineering problems. (Lecture-Problems 1 hour, Laboratory 3 hours.)

335. Fluid Mechanics (3)

Prerequisites: MATH 224, C E 205 or consent of instructor. Properties of fluids, fluid statics, fluid dynamics, dynamic similitude, flow of compressible and incompressible fluids in closed conduits, uniform flow in prismatic open channels. (Lecture-Problems 3 hours.)

336. Fluid Mechanics Laboratory (1)

Prerequisite: ENGL 100 or equivalent. Prerequisite or corequisite: C E 335. Experiments in and study of the phenomena of fluid flow. (Laboratory 3 hours.)

345. Geotechnical Engineering I (3)

Corequisites: MAE 373; GEOL 370. Soil mechanics applied to engineering structures. Soil exploration, identification, classification, drainage, stability and bearing capacity. (Lecture-Problems 3 hours.)

346. Geotechnical Engineering Laboratory (1)

Prerequisite: ENGL 100 or equivalent. Corequisite: CE 345. Laboratory investigation and experiments in the phenomena of soil mechanics. (Laboratory 3 hours)

359. Structural Analysis I (3)

Prerequisite: MAE 373. Analysis of structures including trusses, beams, and frames, conjugate beam, virtual work, energy methods, approximate methods, and influence lines. Learn to use several code based finite element computer programs in analysis of frame and truss type structures. (Lecture-Problems 3 hours)

364. Environmental Engineering (3)

Prerequisite or corequisite: CE 335; Prerequisite: ENGL 100 or equivalent. Study, simulations and design of the environmental elements of a community. Special emphasis is made in the field of water quality. Introduction to land and air pollution abatement

and environmental health engineering. Standard laboratory methods of water and wastewater analysis. (Lecture 2 hours, Laboratory 3 hours)

370. Analytical Mechanics (3)

Prerequisites: PHYS 151; Prerequisite or corequisite: MATH 123. Fundamental principles of statics, kinematics and kinetics, with application to idealized structures and systems. Intended for Electrical Engineering majors. Not open to Civil or Mechanical Engineering majors. (Lecture-Problems 3 hours.)

404. Laboratory Techniques (1)

Prerequisites: ENGL 100 or equivalent, 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 for maximum credit of 3 units. (Conference 1 hour, Laboratory 3 hours.)

405. Special Topics in Civil Engineering (3)

Prerequisite: Senior standing in civil engineering or consent of instructor. Selected topics from recent advances in civil engineering. Course content will vary from year to year. (Maximum credit 6 units. Lecture-Problems 3 hours.)

406./514. Engineering Economy and Administration (3)

Prerequisite or 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

407. Probability and Statistics in Civil Engineering (2)

Prerequisites: MATH 370A and senior standing. 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, Laboratory 3 hrs.)

408. Special Problems (1-3)

Prerequisite: Senior standing in civil engineering. Assigned topics in technical literature or laboratory projects and report on same.

410. Concrete Materials and Construction Engineering (3)

Prerequisite: CE 300 or consent of instructor. Advances in materials for making concretes, mixed design using computers. Modern applications of concrete construction including buildings, transportation structures, rehabilitation of infrastructures. Polymer concretes. Quality control, durability and economics. Graduate students will be required to do additional readings from journals, research reports and advanced texts, and write a research term paper to deal with Problems of current interest on concrete materials and advanced concrete construction engineering methods. (Lecture-Problems 2 hours, Laboratory 3 hours).

411. Computer Aided Design and Analysis for Civil Engineers (3)

Prerequisite: CE 206 and senior standing. Techniques for utilizing selected computer models currently recognized by the civil engineering profession. Case studies, capabilities and limitations of these models. Application of selected models in the planning, analysis and design of civil engineering projects. (Lecture-Problems 3 hours.) Letter grade only (A-F).

426. Transportation Engineering (3)

Prerequisites: CE 345, CE 406 and Senior standing, or consent of the instructor. Theory, Design and operation of various modes of transportation. (Lecture-Problems 3 hours).

427. Highway Design (3)

Prerequisite: C E 345. Design problems in highway engineering. Design project. (Lecture-Problems 3 hours.)

429./529. Traffic Engineering (3)

Prerequisite: CE 426 or consent of instructor. Traffic Engineering as related to studies, planning, operation and administration. Graduate students will be required to do extra work, including assigned readings and a term paper in order to understand the planning and design of complex highway projects involving the relationship of traffic data and interpretation for design and applications. (Lecture-Problems 3 hours.) Letter grade only (A-F).

435. Hydrology and Water Resources Engineering (3)

Prerequisite: C E 335. 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. (Lecture-Problems 3 hours.)

437. Engineering Hydraulics (3)

Prerequisites: C E 335, MATH 370 A. Theory and analysis of steady uniform and non-uniform flow in open conduits. Energy and momentum principles, critical flow computations and applications, design of channels, computations of gradually varied, spatially varied and rapidly varied flows. (Lecture-Problems 3 hours.)

438. Hydraulic Engineering Design I (3)

Prerequisite: CE 335. Application of hydraulic principles to the design of dams, water courses, water systems and their related structures and devices. (Lecture-Problems 3 hours)

445. Geotechnical Engineering II (3)

Prerequisites: CE 345, 346. Methods of design and construction of various geotechnical engineering projects utilizing theory of soil mechanics. (Lecture-Problems 3 hours.) Letter grade only (A-F).

446./542. Geotechnical Projects (3)

Prerequisite: CE 345. Design and problem solving oriented geotechnical projects using soil mechanics theory and experimental methods according to the current state-of-the-art practice. Emphasis is placed on the fields of slope stability, pile foundation, seepage and soil dynamics. Graduate students will be required to do additional readings from journals, research reports and advanced texts, and write a research term paper to deal with current topics in geotechnical engineering, including soil remediation for waste treatment and landfill, and soil dynamics problems in foundations and earthquake engineering. (Lecture-Problems 3 hours) Letter grade only (A-F).

455. Structural Steel Design (3)

Prerequisite: C E 458. Detailed design of components with typical codes and specifications. (Lecture-Problems 3 hours.)

456./516. Timber Design (3)

Prerequisite: CE 359. Corequisite: CE 458. Design of stressed skin panels, supporting members, frames and their connections. Applications to timber structures and concrete framework. Graduate students will be required to do required readings and term paper linking material and structural behavior to design codes, applications. (Lecture-Problems 3 hours). Letter grade only (A-F).

457./517. Reinforced Masonry Design (3)

Prerequisite: CE 359. Corequisite: CE 458. Theory, design and application of reinforced masonry (brick and block) in compliance with the Uniform Building Code. Earthquake provisions. Construction and specifications. Design of high rise buildings, industrial buildings, retaining walls. Advanced students will be required to do a design project using a response spectrum of a two-story building; assigned readings from journals and a research term paper linking behavior of reinforced masonry systems to design codes and design applications for wind and seismic effects. Learn to utilize code based masonry finite element programs in design of footings, shear walls, beams and columns. (Lecture-Problems 3 hours.) Letter grade only (A-F).

458. Structural Analysis II (3)

Prerequisite: CE 359. Solution of indeterminate truss and frame structures using moment distribution and slope deflection methods. Introduction to matrix methods. Energy theorems and virtual work principles. Utilize code based finite element computer programs in the analysis of indeterminate structural systems including frames, trusses, plates and shells. (Lecture-Problems 3 hours.)

459. Reinforced Concrete Design I (3)

Prerequisite: C E 300 and C E 359. Theory and design of structural elements of reinforced concrete, analysis by working stress and ultimate strength design theories. (Lecture-Problems 3 hours.)

466. Environmental Systems Design (3)

Prerequisites: CE 364 or consent of instructor. Principles of environmental systems design. Design and planning of systems for water distribution, wastewater collection and storm water management. (Lecture-Problems 3 hours)

469./569. Hazardous and Toxic Waste Engineering Management (3)

Prerequisite: Consent of instructor. Engineering analysis of hazardous and toxic waste problems of contemporary interest. Current technical specifications at federal, state and local level. Engineering planning, design and management considerations. Detailed engineering, chemical, biological and risk-cost effectiveness and effect on public health. Current literature. Case studies. Term project for graduate students. (Research paper/design project.) (Lecture-Problems 3 hours.) Letter grade only (A-F).

481. Professional Practice In Civil Engineering (1)

Prerequisite: Senior standing. Topics related to practice of civil engineering profession. Professional society meetings and readings. (Lecture-Problems 1 hour.)

490. Senior Design Project (3)

Prerequisites: WPE, completion of all 300-level engineering courses for the civil engineering major and consent of department undergraduate advisor. Normally taken in the last year of the undergraduate program. A supervised design laboratory, with a required group project incorporating all aspects from concept to completed design and oral presentations. In addition to technical and design issues, social, environmental, and economic issues are discussed relative to each project. Ethical concepts relating to Civil Engineering profession are also discussed within each group, as well as by guest lecturers consisting of professional Civil Engineers. Letter grade only (A-F). (Lecture-Problems 2 hours, Design laboratory 3 hours.)

491. Structures Laboratory (1)

Prerequisites: CE 359 and ENGL 100 or equivalent. Prerequisites or corequisites CE 455, CE 459; Laboratory examination of structural concepts. Utilize computer simulation modeling techniques in combination with structural tests. (Laboratory 3 hours.)

495. Seismic Design I (3)

Prerequisites: CE 455, 459. Elements of lateral-force design in steel, concrete, masonry, and timber structures. Application of current building codes. (Lecture 3 hours.)

497. Senior Problem Directed Studies (2)

Prerequisite or corequisite: CE 406, 481, 490. Directed study on assigned topics or lab/field studies practicum and report on same.

Graduate Level

500. Engineering Analysis I (3)

Prerequisites: MATH 370A. Application of analytical methods to engineering problems. Differential equations and series solutions, Bessel functions and Legendre polynomials, boundary value and eigenvalue problems, Fourier series, partial differential equations, vector analysis. (Lecture-Problems 3 hours) Letter grade only (A-F).

501. Engineering Analysis II (3)

Prerequisites: MATH 370A. Analysis of engineering mechanics by matrix theory and complex variables; introduction to numerical techniques. (Lecture-Problems 3 hours.) Letter grade only (A-F).

502. Finite Element Methods II (3)

Prerequisite: Consent of instructor. Theory of finite element methods. Discretization of continuum, element stiffness matrices and direct stiffness formulation. Application to frame, plane stress and strain, plate and shell problems using SAP. (Lecture-Problems 3 hours.) Letter grade only (A-F).

503. Selected Topics in Civil Engineering (3)

Prerequisites: Graduate standing and consent of instructor. Selected topics, with laboratory work required, from the most recent developments in civil engineering. Course content will vary from year to year and the specific topic will be recorded on the student's transcript. May be repeated once for credit. No more than six units of CE 503 or CE 504 may be counted for the Master's Degree. (Lecture-Problems 2 hours, Laboratory 3 hrs) Letter grade only (A-F).

504. Advanced Topics in Civil Engineering (3)

Prerequisites: Graduate standing or consent of instructor. Selected topics from recent developments in civil engineering. Course content will vary from year to year. May be repeated once for credit. No more than six units of CE 503 and/or CE 504 may be counted for the master's degree. (Lecture-Problems 3 hrs) Letter grade only (A-F).

508. Probabilistic and Statistical Methods in Engineering Applications (3)

Prerequisites: Graduate standing or consent of instructor. Civil Engineering applications of nondeterministic models and decision theory. Applications of proven statistical computer programs. (Lecture-Problems 3 hours.) Letter grade only (A-F).

509. Computational Methods in Civil Engineering (3)

Prerequisites: Graduate standing or consent of instructor. Numerical analysis and computer methods applied to various branches, including special problem-oriented languages. Application of proven computer programs. (Lecture-problems 2 hours, Laboratory 3 hours) Letter grade only (A-F).

514./406. Engineering Economy and Administration (3)

Prerequisite or 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

516./456. Timber Design (3)

Prerequisite: CE 359. Corequisite: CE 458. Design of stressed skin panels, supporting members, frames and their connections. Applications to timber structures and concrete formwork. Graduate students will be required to do required readings and term paper linking material and structural behavior to design codes, applications. (Lecture-Problems 3 hours) Letter grade only (A-F).

517./457. Reinforced Masonry Design (3)

Prerequisite: CE 359. Corequisite: CE 458. Theory, design and application of reinforced masonry (brick and block) in compliance with the Uniform Building Code. Earthquake provisions. Construction and specifications. Design of high rise buildings, industrial buildings, retaining walls. Advanced students will be required to do a design project using a response spectrum of a two-story building; assigned readings from journals and a research term paper linking behavior of reinforced masonry systems to design codes and design applications for wind and seismic effects. Learn to utilize code based masonry finite element programs in design of footings, shear walls, beams and columns. (Lecture-Problems 3 hours.) Letter grade only (A-F).

520. Seaport Planning and Design (3)

Prerequisite: CE 426 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

522. Transportation Planning (3)

Prerequisite: C E 426 or consent of instructor. Planning of fixed facilities for various modes of transportation in urban areas. Engineering administration and integration of transportation systems. (Lecture-Problems 3 hours) Letter grade only (A-F).

526. Pavement Engineering (3)

Corequisite: C E 427 or consent of instructor. Aggregate, binder systems. Theory and design of pavement structures. (Lecture-Problems 3 hours.) Letter grade only (A-F).

529./429. Traffic Engineering (3)

Prerequisite: CE 426 or consent of instructor. Traffic Engineering as related to studies, planning, operation and administration. Graduate students will be required to do extra work, including assigned readings and a term paper in order to understand the planning and design of complex highway projects involving the relationship of traffic data and interpretation for design and applications. (Lecture-Problems 3 hours) Letter grade only (A-F).

531. Groundwater and Seepage (3)

Prerequisites: C E 335, 345 or consent of instructor. Theory and application of ground-water flow and seepage through earth structures. (Lecture-Problems 3 hours.) Letter grade only (A-F).

532. Sediment Transportation (3)

Prerequisite: C E 437. Phenomena of sediment transportation related to streams and marine environments. (Lecture-Problems 3 hours.) Letter grade only (A-F).

535. Advanced Hydrology (3)

Prerequisites: Graduate standing or consent of instructor. Theory and application of surface hydrology. Hydrologic statistics, dynamic wave routing, frequency analysis and risk analysis. Simulation of design flows, flood forecasting, flood plain analysis and hydrologic design. Mathematical models, numerical methods in analysis and evaluation. (Lecture-Problems 3 hours.) Letter grade only (A-F).

536. Urban Surface Water Management (3)

Prerequisite: CE 437 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

538. Hydraulic Engineering Design II (3)

Prerequisites: C E 437, 438 or consent of instructor. Design of water supply networks, hydraulic transitions, controls and structures. Hydraulic power conversion. River engineering. Water resources systems. (Lecture-Problems 3 hours.) Letter grade only (A-F).

542./446. Geotechnical Projects (3)

Prerequisite: CE 345. Design and problem solving oriented geotechnical projects using soil mechanics theory and experimental methods according to the current state-of-the-art practice. Emphasis is placed on the fields of slope stability, pile foundation, seepage and soil dynamics. Graduate students will be required to do additional readings from journals, research reports and advanced texts, and write a research term paper to deal with current topics in geotechnical engineering, including soil remediation for waste treatment and landfill, and soil dynamics problems in foundations and earthquake engineering. (Lecture-Problems 3 hours) Letter grade only (A-F).

543. Waste Management and Landfill Engineering (3)

Prerequisites: 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. (Lecture-Problems 3 hours) Letter grade only (A-F).

545. Rock Mechanics in Engineering Practice (3)

Prerequisites: CE 345, 346, or consent of instructor. Principles of rock mechanics with emphasis on engineering practices for problems of slopes, foundations and tunnels. Same course as GEOL 545. (Lecture-Problems 3 hours) Letter grade only (A-F).

546. Theory and Design of Foundation Structures (3)

Prerequisites: CE 345 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. (Lecture-Problems 3 hours) Letter grade only (A-F).

547. Soil Dynamics (3)

Prerequisites: CE 345 or consent of instructor. Theories and field behaviors of dynamically loaded foundation systems and soil responses with emphasis on engineering applications. (Lecture-Problems 3 hours) Letter grade only (A-F).

548. Geotechnical Engineering III (3)

Prerequisite: C E 345 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

551. Prestressed Concrete (3)

Prerequisite: C E 459. Principles of prestressed concrete. materials used, applications to structural design, review of existing specifications. (Lecture-Problems 3 hours.) Letter grade only (A-F).

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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

553. Behavior and Design of Steel Structures (3)

Prerequisite: C E 455. Study of torsion, unsymmetrical bending, stability. Plastic design, code provisions and commentary. Design of complete structural systems in steel. (Lecture-Problems 3 hours.) Letter grade only (A-F).

555. Seismic Design II (3)

Prerequisite: C E 495 or consent of instructor. Characteristics of earthquakes and seismicity response spectra, modal methods of analysis, practical examples of elastic and inelastic response of structures to earthquake motions. New development in codes, computer applications. (Lecture-Problems 3 hrs) Letter grade only (A-F).

557. Advanced Structural Analysis (3)

Prerequisite: C E 458 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 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 and Wastewater Treatment Design I (3)

Prerequisite: C E 364 or consent of instructor. Design of physical and chemical processes for water and wastewater treatment, with emphasis on water treatment plants. (Lecture-Problems 3 hours.) Letter grade only (A-F).

563. Water and Wastewater Treatment Design II (3)

Prerequisite: C E 562 or consent of instructor. Design of chemical and biological processes for water and wastewater treatment with emphasis on wastewater treatment. (Lecture-Problems 3 hours.) Letter grade only (A-F).

564. Environmental Health Engineering (3)

Prerequisites: CE 364 or consent of instructor. Health and safety aspects of environmental quality and related engineering systems. Regulatory aspects. Projects and case studies. (Lecture-Problems 3 hours) Letter grade only (A-F).

565. Environmental Waste Engineering (3)

Prerequisites: CE 364 or consent of instructor. Generation, treatment, resource recovery and disposal of industrial wastes, solid wastes and hazardous materials. (Lecture-Problems 3 hrs) Letter grade only (A-F).

566. Unit Operations in Environmental Engineering (3)

Prerequisites: CE 364 or consent of instructor. Civil engineering applications of the fundamentals of chemical reactions, kinetics of biochemical systems, gas transfer operations, liquid/solid separations, solubility equilibria, adsorption, ion exchange and membrane processes. (Lecture-Problems 3 hours) Letter grade only (A-F).

567. Liquid and Solid Waste Project Planning and Management (3)

Prerequisites: CE 364 or consent of instructor. The presentation of research and case studies of liquid and solid waste project planning and management. (Lecture-Problems 3 hours) Letter grade only (A-F).

569./469. Hazardous and Toxic Waste Engineering Management (3)

Prerequisite: Consent of instructor. Engineering analysis of hazardous and toxic waste problems of contemporary interest. Current technical specifications at federal, state and local level. Engineering planning, design and management considerations. Detailed engineering, chemical, biological and risk-cost effectiveness and effect on public health. Current literature. Case studies. Term project for graduate students (Research paper/design project.) (Lecture-Problems 3 hours.) Letter grade only (A-F).

570. Engineering Management Principles and Practices (3)
Prerequisites: CE 406, 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. (Lecture 3 hours.) Letter grade only (A-F).

571. Construction Planning and Cost Control (3)
Prerequisites: 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. (Lecture-Problems 3 hours.) Letter grade only (A-F).

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 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)
Prerequisites: Graduate standing or consent of instructor. An introduction to construction organization, control concepts and labor, emphasizing the business aspects of construction engineering 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. Business Aspects and Finance of Construction Projects (3)
Prerequisite: CE 406 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).

582. Management of Productivity and Quality (3)
Prerequisite: CE 570 or consent of instructor. System approaches to quality and productivity in construction. Total Quality Management (TQM) in construction engineering 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).

629./729. Traffic Operations (3)
Prerequisite: CE 429 or CE 529, or consent of instructor. Principles of traffic flow, signal timing optimization, signal coordination, and traffic. Graduates enroll in CE 629; post graduates enroll in CE 729. Post-graduate students will be required to do additional work (Lecture-Problems 3 hours). Letter grade only (A-F).

630./730. Mathematical Modeling in Hydraulic Engineering (3)
Prerequisite: CE 437 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. M.S. students register in CE 630; Ph.D. students register in CE 730. Ph.D. students will be required to complete a more rigorous computer project. (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 a more 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 (1-3)
Prerequisite: Graduate standing. Corequisite: CE 696 or written consent of directed studies 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)
Prerequisite: Admission to candidacy for degree of master of science in civil engineering. Corequisite: C E 696 or written consent of faculty advisor. Planning, preparation and completion of a thesis and/or project in the field of civil engineering. May be repeated to a total 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. May be repeated to a total of 9 units.

729./629. Traffic Operations (3)
Prerequisite: CE 429 or CE 529, or consent of instructor. Principles of traffic flow, signal timing optimization, signal coordination, and traffic. Graduates enroll in CE 629; post graduates enroll in CE 729. Post-graduate students will be required to do additional work (Lecture-Problems 3 hours). Letter grade only (A-F).

730./630. Mathematical Modeling in Hydraulic Engineering (3)
Prerequisite: CE 437 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. M.S. students register in CE 630; Ph.D. students register in CE 730. Ph.D. students will be required to complete a more rigorous computer project. (Lecture-Problems 3 hours). Letter grade only (A-F).

740./640. 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 a more rigorous computer project. (Lecture-Problems 3 hours.) Letter grade only (A-F).

COLLEGE OF LIBERAL ARTS

Dean

Dorothy Abrahamse

Associate Deans

Gerry Riposa

Frank Fata

Director, Facilities Planning and Technology

Paul Schmidt

Development Officer

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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 and provides professional training in Journalism. Through the Liberal Arts, students acquire a fundamental understanding of social and individual behavior and of cultures and belief systems in the past and present. Communication, verbal and written, in English and other languages, and across cultures, is a fundamental emphasis throughout the curriculum. Liberal Arts disciplines also emphasize the acquisition and analysis of information and its use to understand and to help resolve complex social problems. 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.

Degree programs offered

Bachelor of Arts:

Anthropology, American Studies, Asian Studies, Asian American Studies, Black Studies, Business Economics, Chicano and Latino Studies, Chinese Studies, Classics, Comparative Literature, Economics, English, Environmental Science and Policy, Geography, French, French Studies, German, History, Human Development, International Studies, Japanese, Journalism, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Spanish, Speech Communication, and Women's Studies.

Master of Arts:

Anthropology, Asian Studies, Economics, English, French, Geography, German, History, Linguistics, Philosophy, Political Science, Psychology (with options in general research and in industrial and organizational psychology), Religious Studies, Spanish, and Speech Communication.

Master of Fine Arts in English

Master of Science in Psychology

Certificate Programs:

American Indian Studies, Asian Studies, Asian American Studies, Black Studies, Japanese, Latin American Studies, Legal Studies in the Liberal Arts, Medieval and Renaissance Studies, Russian-East European Studies, Teaching English as a Second Language, Technical and Professional Writing, and Urban Studies

Minor Programs:

American Indian Studies, Anthropology, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, Comparative Literature, Classical Studies, English (Literature, Language and Composition, Creative Writing, Teaching, or Special Option), French, Geography, German, Greek, History, International Economics, Italian, Jewish Studies, Latin, Latin American Studies, Linguistics, Medieval and Renaissance Studies, Middle Eastern Studies, Philosophy, Political Science, Public Administration, Psychology, Religious Studies, Russian, Sociology, Spanish, Speech Communication, and Women's Studies.

Language Courses:

Arabic, Chinese (Mandarin), Cambodian (Khmer), French, German, Greek, Hebrew, Italian, Japanese, Latin, Russian, Spanish, and Swahili.

Special Facilities

The College operates special facilities including archeology, geography, language, psychology, writing, and general computer laboratories.

Student Activities

Most of the departments in the College of Liberal Arts have either a student association or honor 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, Anna Nazarian (985-4181).

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.

Credential Programs

Single subject credential programs are offered in English, French, German, Spanish, Japanese, and Social Science. Students who plan to teach these subjects in the secondary schools are strongly advised to consult the Single Subject Advisor as early as possible in their studies, so that they fulfill subject matter preparation requirements while completing an undergraduate major.

Credential Advisors

Japanese - Dr. Hsin-Sheng C. Kao (985-7530)
Social Science - Dr. Arlene Lazorowitz (985-4423)
English - Linda Morrow (985-4231)
English - Dr. Joe Potts (985-7929)
French, German, Spanish - Dr. Griselda Sasayama (985-4319)

Courses (C/LA)

Lower Division

190. Special Topics (1-3)

Topics of special interest in the liberal arts. Topics will be announced in the *Schedule of Classes* each semester. Course may be repeated to a maximum of 3 units.

195. Introduction to the Learning Community-Transition to College Success (1)

Prerequisite: Acceptance into the Learning Alliance Program. This course will provide members of the Learning Alliance with an introduction to the learning community in the College of Liberal Arts. The course will address scholarly and academic research skill development, literacy in basic computer skills including e-mail and the Internet, methods to integrate the two disciplines featured in the paired courses, and how to develop a personal academic and life plan. Students will be able to initiate their community volunteer and service learning requirement for the program. Letter grade only (A-F).

250. Elementary Statistics (4)

Prerequisites: Knowledge of mathematical procedures usually covered in elementary high school algebra. 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 to students with credit in ANTH 302, MATH 180 or PSY 110. (Discussion 3 hours, laboratory 2 hours.) Same course as HDEV 250.

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. British Life and Culture (3)

This series of lectures with follow-up discussion and written responses is a required part of the London Semester Program. The lectures are designed to offer in-depth information on a wide range of social, artistic, and intellectual issues relevant to contemporary England. Although the course is specifically geared to students participating in the London Semester Program, the materials covered are closely related to many topics covered in classes offered during the rest of the students' work on campus. Credit/No credit grading only.

314I. Introduction to Contemporary Europe (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary introduction to contemporary European cultures and related issues through a combination of travel and study. Students will be introduced to some principles and methods useful for analyzing cultures and their own interactions with them. Letter grade only (A-F).

315I. Contemporary European Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary approach to understanding cultural and political developments in contemporary European societies. Although the study of history serves as the foundation of the course, the perspectives and methodologies of several other social science disciplines are an important component of the course. Letter grade only (A-F).

400. Evaluating Literacy (3)

Prerequisites: Limited to students in the Liberal Studies major, Track I, who have completed all AREA I Core requirements with a "C" or better grade and passed the WPE, or consent of Program Director. Study of contemporary literacy theory and practice with focus on language, culture, literature, and development of literacy. Students will gain greater, more precise understanding of literacy assessment and its implications, determinations and effects as they are themselves assessed for language competencies. Letter grade only (A-F).

403. Civic Issues and Values (3)

Prerequisites: Limited to students in the Liberal Studies major, Track I, who have completed all Area IV Core requirements with a "C" or better grade. Provides subject opportunities and experiential activities for students to learn to confront controversial issues, solve problems cooperatively, examine issues from multiple and dialogical points of view, and practice listening with understanding and empathy. Student literacy in the social sciences and ability to recognize and deal with the dynamics of a multicultural, multiethnic community will be assessed.

471. History/Social Science Content and Standards for Elementary Classrooms (2)

Prerequisites: Limited to Liberal Studies majors in the Integrated Teacher Education Program (ITEP), who have completed all Area IV Core requirements with a "C" or better grade. Corequisites: EDEL 471 and EDEL 473A. This course will provide a review, analysis and assessment of the content of the California State Social Science Curriculum for grades K through 8. The content of the California History-Social Science Framework will be examined in depth and aligned with the teaching methods and pedagogy taught concurrently in EDEL 471 and EDEL 473A. This is a capstone course and students will be asked to explicitly demonstrate the breadth and depth of their subject-matter content mastery in the social sciences pursuant to the California State qualifications for a Multiple Subject Teaching Credential. Assessment and inquiry will focus upon student literacy in the social sciences, integrating geographical perspectives with historical analysis, and facilitating student depth of knowledge and global perspective in California, Early American, and Pre-Modern World history. Letter grade only (A-F).

485. Oral History Methods (1)

Through a series of workshops and through field experience, 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. Credit/No Credit grading only. Same course as HIST 402.

490. Special Topics (1-3)

Topics of special interest in the liberal arts for intensive study. Topics will be announced in the *Schedule of Classes* each semester. Course may be repeated for a maximum of 9 units with different topics.

491. Special Topics (2)

Topics of special interest in the liberal arts for intensive study. Topics will be announced in the *Schedule of Classes* each semester.

495. Social Science for Teachers (3)

Prerequisites: Students must have completed all coursework in the Social Science Subject Matter Program. A capstone course for students in the Social Science Subject Matter Program, to be offered just prior to student teaching. Examination of issues in social science education in accord with topics highlighted in the California History/Social Science Framework. A grade of "B" or better is required for advancement to student teaching. Letter grade only (A-F).

498. Directed Studies in Oral History (1-6)

Permission of faculty required. Directed study on a research topic using the methodology of oral history. May be repeated for a maximum of 6 units. Same course as HIST 4980.

COLLEGE OF NATURAL SCIENCES AND MATHEMATICS

Dean

Glenn M. Nagel

Associate Dean for Curriculum and Instruction

Henry C. Fung

Associate Dean for Academic Initiatives

Elizabeth L. Ambos

Associate Dean for Facilities

Robert L. Loeschen

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Departments

Biological Sciences (562) 985-4806

Laura Kingsford, Chair

Chemistry and Biochemistry (562) 985-4941

Douglas McAbee, Chair

Geological Sciences (562) 985-4809

Stanley C. Finney, Chair

Mathematics and Statistics (562) 985-4721

Arthur K. Wayman, Chair

Physics and Astronomy (562) 985-4924

Alfred F. Leung, Chair

Science Education (562) 985-4801

Maureen M. McMahon, Chair

Student Access to Science and Mathematics Center

Co-Directors

Roger D. Bauer

Henry C. Fung

Associate Director

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In a world where science plays an increasingly important role and where an understanding of the sciences is essential for a participating and informed citizenry, the College of Natural Sciences and Mathematics provides quality educational opportunities in the life, physical sciences, and mathematics. Students are provided a broad-based, fundamental education in the natural sciences and mathematics, and are challenged to think critically, analytically, and creatively. 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. Employment opportunities for students with backgrounds in science and mathematics are traditionally excellent.

The College is dedicated to the concept that a university has a special responsibility toward academic excellence and the advancement of knowledge. The faculty and staff of the Departments of Biological Sciences (including the former departments of Anatomy and Physiology, Biology, and Microbiology), Chemistry/Biochemistry, Geological Sciences, Mathematics and Statistics, Physics/Astronomy, and Science Education are committed to providing an outstanding educational experience for all students.

The College takes its responsibilities in teacher preparation in the sciences and mathematics very seriously. It has recently embarked on several new projects that will provide a stronger, more rigorous, and more engaging set of teacher preparation programs at CSULB. With 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, science and mathematics faculty are working to enrich and align teacher preparation coursework and internship opportunities.

Degrees Offered

Five departments within the College of Natural Sciences and Mathematics offer both the Bachelor of Science and Master of Science degrees. The Department of Science Education offers the Master of Science degree. The Departments of Chemistry/Biochemistry, and Physics/Astronomy also offer the Bachelor of Arts degree. Each degree has unique requirements and students should refer to a departmental section of this *Catalog* to determine specific requirements. Ideally, all students 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 June-July (for those entering in August) and January (for those entering in January). A department advisor will be available to assist in developing an appropriate academic plan consistent with career goals. During the semester, students may obtain academic advising by contacting the appropriate adviser(s) in the department offering the chosen degree program.

Student Research Opportunities

Faculty in the College involve more than 200 students annually, both undergraduate and graduate, in a wide 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 co-author an article appearing in a major scientific journal.

The faculty's commitment to these students is based on the knowledge that involvement in scientific research makes the study of science more real and provides strong motivation for the student to pursue a career in science. Since the anticipated need for scientists far exceeds the enrollment of science majors, we are committed to meeting the short-fall by making the study of science at CSULB as "real world" as possible.

Student Access to Science and Mathematics (SAS) Center and Programs Offered

A student center (FO5-109) adjacent to the Dean's office is dedicated to promoting success for students who pursue majors in the College and those who take courses in its departments. The Center also facilitates several externally funded programs including The National Institutes of Health (MARC, MSD, and Bridges to the Baccalaureate), and National Science Foundation (CRUI, AMP, LBESTEP). The center provides space for studying, tutoring, mentoring, and meeting rooms for student-centered activities. The Center also serves as the resource center for health profession advising, graduate school opportunities, summer research opportunities and fellowships.

SAS coordinates and assures effective integration of all of our mentoring, enrichment, and outreach programs — including those based on undergraduate research. SAS is dependent on external funding for its success.

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 focus on underrepresented 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 250 of our science majors.

MARC/MSD Programs. The College hosts both programs funded by The National Institutes of General Medical Sciences: Minority Access to Research Careers (MARC) and Minority Student Development (MSD). Both programs have the goal of increasing the number and quality of students from historically underrepresented ethnic groups who pursue careers in scientific research. The 30 students supported by these programs carry out state-of-the-art biomedical research projects in conjunction with a member of the faculty. Virtually all of these students continue study toward advanced degrees in science. The MARC program is an honors program (GPA 3.0) for upper division students, while the MSD program can support students as early as the freshman year and can also support graduate 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. In addition to their research involvement, MARC/

MSD students are active in various outreach and mentoring activities.

Bridges to the Baccalaureate Program. This program is funded by the National Institutes of General Medical Sciences and its goal is to provide historically underrepresented community college students with research opportunities in the biomedical sciences and to facilitate their seamless transition into baccalaureate granting institutions.

G-DEP Program. The Geoscience Diversity Enhancement Program (G-DEP) is an innovative, collaborative partnership between CSULB Departments of Geological Sciences, Geography, and Anthropology, and several community colleges and local high schools to improve the research and educational experiences of underrepresented students in geoscience (geologic, physical geographic, archaeological and environmental sciences disciplines). The goals of G-DEP are to (1) increase the number of underrepresented students who have a broad educational and research experience in the geosciences; (2) enhance the quantity and quality of Geoscience research and teaching by faculty members from the University, community colleges and high schools; (3) increase the awareness by community college and high school students of the field of geoscience, and related research careers and educational requirements; (4) create a seamless transition of underrepresented students from community colleges to study geosciences at the undergraduate level; and (5) increase the number of geoscience majors who are retained in their disciplines.

AMP Program. The College hosts the National Science Foundation's Alliance for Minority Participation (AMP) program. Its goal is to improve the mathematics and science preparation for historically underrepresented students majoring in the sciences, mathematics, and engineering.

UPP. The University Preparatory Program (UPP) provides an enriched curriculum in mathematics and sciences for underrepresented high school students and introduces, presents, and facilitates their entrance into the university.

Science Enrichment and Peer Mentor Programs. Peer mentoring provides our college students opportunities for tutoring to strengthen their academic and communication skills. This program is designed to provide first time freshmen in the College of Natural Sciences and Mathematics with the guidance and personal support that are vitally important to their success at CSULB. This program allows 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 Enrichment Program begins the week prior to the start of the fall semester. In order to be part of the program, students must be declared science or math majors and be enrolled in the presemester University 100 course.

HHMI. The Honors in Biological Sciences program is sponsored 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. Participating students will be eligible for financial support for their research experience as well as for travel to scientific conferences.

Health Professions Advising Office (HPAO). The Health Professions Advising Office (HPAO) provides a wide range of advising and support services designed to meet the needs of CSULB students as they navigate through the often-complex process of preparation and application to professional school. 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.

The Electron Microscopy Facility

The study of the natural sciences requires observation of the macroscopic, microscopic, and sub-microscopic character of our universe. With this in mind, the College has established a modern Electron Microscope (EM) Facility which is used by several undergraduate courses in addition to undergraduate and graduate research projects. The pride of the EM Facility is the Joel-1200EXII transmission electron microscope (TEM), obtained through a National Science Foundation instrumentation grant. The Joel-1200EXII has a resolution of 0.14 nm and a magnification range of from 50 to 1,000,000 times. The EM Facility also houses additional TEMs and an AMR 1000 scanning electron microscope. The latter will be upgraded to include analytical capabilities.

Student Organizations

The College of Natural Sciences and Mathematics Student Council sponsors annual events including: a fall open house and spring picnic, Science Career Days, and the Nobel Laureate Speaker series. Six departmental associations plan various social and academic-related programs that offer peer support, as well as opportunities for students and faculty to interact outside of the classroom.

Four 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.

Health Professions Advising Office

Please see Health Professions Advising Office under *Student Access to Science and Mathematics (SAS) and Programs Offered* for assistance and services available for preparation and application to health profession 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 excellent 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.

Courses (NSCI)

Lower Division

200. Introduction to Computer Methods in Science (2)

Prerequisites: Major in the College of Natural Sciences and Mathematics; and MATH 119A or MATH 122 or consent of instructor. Introduction to computer methods used in collecting, analyzing, and presenting scientific data. Introduces word processing, spreadsheet analysis, and elementary programming. Credit/No Credit grading only. Course fee required. (Lecture 1 hr., discussion 1 hr.)

Upper Division

308. Community and Careers in the Health Professions (3) S

Prerequisites: Completion of Foundation Courses, one or more Explorations Courses, upper division status, and 3 units of Natural Sciences coursework. This course is an upper division, service-learning, capstone course designed to develop students' abilities to critically think and analyze issues concerning health care in communities and the roles of professionals involved in the delivery of that care. Topics concerning biomedical ethics are also included. Students will be required to provide service in a community agency providing health care. In class, students will hear guest speakers, participate in discussions, analyze and reflect upon their volunteer experiences and how these experiences relate to in-class topics. This course will enhance oral and written communication skills, better define career goals, provide understanding of community needs and foster greater civic responsibility. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

309I. Women in Science (3) F,S

Prerequisites: Completion of the G.E. Foundation, six-units of general education science courses, and upper-division standing, and permission of instructor. The purpose of this course is to increase awareness of the accomplishments of women in natural science, engineering, and mathematics in their socio-historical context; and the obstacles that have precluded easy access to careers for women in these areas. Specific topics include historical roles of women in science, contributions of celebrated women scientists, and women scientists who made significant contributions but were ignored or devalued by their scientific peers. Other key issues include stereotypes and images of women in science: cultural, societal, and institutional obstacles to the entry and success of women in science; and ways of overcoming these obstacles. Disciplines included in this course are science, history, and sociology. Letter grade only (A-F). Same course as W/ST 309I. (Lecture 3 hrs.)

333. Natural Science Field Studies (2)

Prerequisites: All with a grade of "C" or better: GEOL 106 or 102 and either 104 or 105; CHEM 100 or 105 or 111A; PHSC 112; BIOL 200; and upper-division standing. The purpose of this course is to provide students with field experience in observation, interpretation and recognition of natural processes and features in the varied natural environments of southern California. The course will be team-taught by a geologist and a biologist. In-class lectures and discussions will provide students with pertinent theoretical and practical knowledge prior to each field trip. Topics of discussion and study will focus on the geological and biological aspects of selected field sites, and on the underlying physical and chemical

relationships involved at each site. Specific topics include the following: origin and recognition of faults; earthquake generation and hazards; geologic history of California; effect of mountain-building on climate, nearshore ocean processes, biology of near-shore, marine, estuarine and wetlands habitats; coastal, desert and mountain ecosystems; influence of rock/sediment on plant growth and diversity; geology and biology of lakes; and ground water and surface water flow, storage and contamination. Letter grade only (A-F). (Lecture 1 hr., laboratory and required field trips, 3 hrs.)

375I. Science and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing; 3 units of general education natural science courses. The purpose of this course is to learn about the nature of science by studying major discoveries in the life and physical sciences that currently have an impact on our lives. In addition to the basic science that contributed to these technological advances, the historical, political, philosophical, and economic contexts of these events will be examined. Included will be discussions of what is science, how is it done, and is it beneficial or destructive? Traditional views of science will be challenged and the social/cultural aspects will be explored. Recent discoveries and the underlying basic science also will be critically evaluated. A special focus will be the demands placed on society by rapidly advancing technology. Letter grade only (A-F). (Lecture 3 hrs)

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. This course may be repeated once for credit with different discussions and topics. (Lecture 1-3 hrs.) Course may be repeated to a maximum of 6 units with different topics.

491. Special Topics Laboratory in Natural Science (1-2)

Prerequisites: Senior standing in the College of Natural Sciences and Mathematics and consent of instructor. Topics from selected areas of the natural sciences. Course content will vary from section to section. May be repeated for credit for a maximum of two units toward any single degree. Letter grade only (A-F). (Laboratory 3-6 hrs.)

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 the instructor prior to registration. Students who qualify will be placed in a major or career-related assignment in private industry or at a public agency. Students 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. A final written report is required. Class attendance and internships to be arranged by the instructor. A minimum of 120 hours of field experience is required. Credit/No credit grading only.

496. Investigations in Natural Sciences and Mathematics (1-3)

Prerequisites: Consent of instructor. Supervised study of current topics in the natural sciences or mathematics by a faculty member in the College of Natural Sciences and Mathematics.

COMMUNICATIVE DISORDERS

College of Health and Human Services

Department Chair

Carolyn Conway Madding

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Randall C. Beattie

Graduate Advisor

Walter H. Moore, Jr.

Clinic Director

Geraldine P. Wallach

Technician

Rodney Pau

Department Administrator

Thanh Vu

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Communicative Disorders Department provides specialized course work for students planning careers in speech-language pathology or audiology. Departmental majors may complete work leading to bachelor of science, bachelor of arts and/or master of arts degrees, as well as Certificates of Clinical Competence in either audiology or speech-language pathology from the American Speech-Language-Hearing Association and the requirements for licensure by the State of California.

Students seeking special education credentials may obtain specific credentials while completing the Master's degree. Students in allied health fields and linguistic sciences will find courses to supplement their regular majors.

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 the many nearby hospitals, rehabilitation agencies and nonprofit language/speech/hearing clinics.

Students desiring information should contact the department office for referral to one of the faculty advisors: Undergraduate Advisor, Graduate Advisor, Student Teacher Coordinator, and Clinic Director.

The Department of Communicative Disorders offers graduate study leading to the Master of Arts degree in communicative disorders with options in audiology and speech-language pathology. This coursework meets requirements for certification by the American Speech and Hearing Association (American Speech-Language-Hearing Association, Council on Academic Accreditation, 10801 Rockville Pike, Rockville, MD 20852, phone: 301-897-5700), licensing by the State of California, and appropriate educational credentials.

Bachelor of Arts in Communicative Disorders (code CD__BA01) (120 units)

Students desiring a bachelor's degree in Communicative Disorders must complete ANTH 170 and a course in language and culture/society, (e.g. ANTH 412I, or 413), in addition to completing the following required courses:

Lower Division: C D 260, 261, 271; PSY 110 or equivalent.

Upper Division: C D 329, 330, 373, 431, 432, 440, 456, 466, 476, 481A, 481B, 483, 489.

Bachelor of Science in Audiology (code CD__BS01) (124-132 units)

The Bachelor of Science degree in Audiology is designed primarily for students who intend to pursue careers in audiology by seeking a Master's Degree in audiology, a professional Doctorate in Audiology (Au.D.), or a research doctor in audiology (Ph.D.). The coursework will provide students with a broad-based undergraduate education with emphasis in the physical and behavioral sciences.

Students completing a Bachelor of Science degree in Audiology must take the following courses:

- A. *Communicative Disorders* (39 units) CD 261, 271, 280, 281, CD 329, 330, 373, 431/531, 432/532, 440, 481A/581A, 481B/581B, and 3 units of 499
- B. *Biological Sciences* (10-12 units chosen from the following) either BIOL 205 or 207, BIOL 204, 208, 211A, 211B, MICR 200
- C. *Chemistry* (6-10 units chosen from the following) CHEM 202 and 302, or CHEM 111A and 111B
- D. *English* (3 units chosen from the following) ENGL 101, 102, or 317
- E. *Mathematics* (6-8 units chosen from the following) MATH 119A and 119B, or 122 and 123
- F. *Statistics* (4 units) PSY 110

- G. *Physics* (8-10 units chosen from the following) PHYS 100A or 101A, 100B or 101B, 151 or 151P, 152 or 152P
- H. *Psychology/Human Development* (15 units chosen from the following) PSY 100 and four courses from the following: PSY 141, 200, 331, 315, 341, 342, 361, 365, 370, 438/538, GERN 400I, H/SC 427
- I. *Culture and Communication* (3 units chosen from the following) ANTH 413/LING 413, ANTH 412I, or COMM 330
- J. *Economics* (3 units) ECON 300

Credentials for Service in Public Education

Students who wish to complete credentials for service as language, speech and hearing specialists or educational audiologists must be admitted to the graduate program in speech pathology or audiology. The following credentials are offered:

Clinical-Rehabilitative Services Language, Speech and Hearing Specialist Credential (code 901)

Candidates must:

1. Complete the master's degree in speech-language pathology.
2. Complete EDP 350 and 564; C D 483, 489, 686A (Field Experience(s) in order to complete 100 contact hours as a Language, Speech and Hearing Specialist trainee in the school setting).

Clinical-Rehabilitative Services Audiologist Credential (code 903)

Candidates must:

1. Complete the master's degree in audiology.
2. Complete EDP 350, C D 280, C D 281, 669G, and 680 (internship to be completed in the schools in order to complete 100 contact hours as an Audiologist trainee in a public school environment.)

Clinical-Rehabilitative Services Language, Speech and Hearing Specialist Credential with Special Class Authorization to Teach Language Disordered Children (code 910)

Candidates must:

1. Complete the master's degree in speech pathology;
2. Complete ED P 350 and ED P 564; C D 483, 489; EDEL 550, 560, 570, 686A.

Master of Arts in Communicative Disorders (code CD__MA01)

Admission to the Graduate Program

Enrollment in 500/600 level courses in communicative disorders is restricted to students who have been accepted to the graduate program of the department as unconditionally classified. 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 to the Office of Admissions and Records to obtain admission to the University with graduate standing;
3. Every student then must apply to the Department of Communicative Disorders for admission to the graduate program using the department application form. This form must be

filed with the graduate advisor by March 1 for admission in the 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. Transcripts of all undergraduate and graduate work. (These transcripts are in addition to those required by the Office of Admissions and Records.) These transcripts should reflect the following minimum criteria:

- (1) a GPA of 3.0 or better in the last 60 units of coursework; and
- (2) confirmation of acceptable GPA obtained during the final senior semester.

c. Three letters of recommendation from academic faculty in Speech-Language Pathology, Linguistics, etc. Our standard recommendation forms can be obtained from the Graduate Advisor and must be completed.

d. Results of the Graduate Record Examination (GRE). Students must make arrangements to take this test in the semester prior to filing for admission to the department graduate program. This is to insure that the student's test results will be available by the filing date since test scores are used as one criterion for acceptance into the graduate program. Students can make arrangements to take the GRE at the Testing Office in SS/AD Rm 216. The Testing Office will supply students with further information and provide them with a description and sample items.

4. Any deficiencies will be determined by the department graduate committee after consultation with the student and the student's faculty advisor and study of transcript records.
5. Student will have completed one of the two prerequisites listed in the next section.

Prerequisites

1. A bachelor's degree from an accredited institution with a major in communicative disorders (speech pathology and/or audiology); or
2. A bachelor's degree from an accredited institution. The applicant must have at least 33 units of course work by the first semester of admission to the graduate program in speech science, speech pathology and/or audiology including courses in (a) anatomy and physiology, (b) phonetics, and (c) introduction to communicative disorders. If student has not completed sufficient units or courses to meet this requirement, he/she may enroll in the University as a conditionally classified graduate student to complete the required undergraduate courses prior to applying to the Graduate Program in Communicative Disorders.

Although the student may apply to our Graduate Program with a minimum of 33 units in Speech-Language-Hearing, all courses required for the B.A. in Communicative Disorders at CSULB (approximately 58 units), or equivalent courses, must be completed before the M.A. in Communicative Disorders will be awarded.

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. selection of Speech-Language Pathology or Audiology option;
3. satisfactory completion of C D 696 and three additional units;
4. satisfactory completion of the CSULB Writing Proficiency Examination. The Writing Proficiency Examination must be passed before the student is advanced to candidacy. (After paying a fee at the Business Office [SS/AD Room 148], take your receipt to the Testing Office [SS/AD Room 216] and sign up for the examination. This examination is administered several times per year. A detailed description of the test is available at the Testing Office);
5. maintenance of a GPA of at least 3.0 in (a) all graduate work completed in Communicative Disorders, (b) all graduate work completed at CSULB, and (c) all graduate work transferred to meet graduation requirements;
6. filing of the student Program for the Master of Arts Degree in Communicative Disorders after completion of items 2-5;
7. 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.

Requirements

Students must elect one of two available options: audiology or speech-language pathology.

For speech-language pathology, 41 units of course work are required: C D 696, 662, 663, 664, 665, 666, 669A, 669C, 669D, 669F, 669G, 669J, 669L, C D 670 or C D 686A, and C D 698 or 695 (Comprehensive Examinations) plus a three-unit elective. Within the context of the C D 669L clinical course, 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. C D 483 and 489 and/or C D 460/560, or equivalent content, are prerequisite to C D 669L.

For audiology 40 units of course work are required: C D 696, 530, 574, 669A or 669C, 669G, 673, 6 units of 674 (3-3), 675, 6 units (2-2-2) of 679, 680, and either 698 or 695 (Comprehensive Examinations) and 3 units of electives.

Regulations governing the preparation and eligibility for the administration of comprehensive examinations are available in the Department Office. Departmental regulations concerning preparation of theses are also available in the office.

Courses (C D)

Lower Division

60. Special Topics (1)

Prerequisite: Consent of instructor. Speech, language and hearing therapy to students enrolled in the University. May be repeated for credit to a maximum of two units.

260. Introduction to Communicative Disorders (3)

Features of human communication dysfunction. Survey of major communicative disorders. Role of speech-language pathologist and audiologist in medical, educational, and private practice settings.

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.

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. (Lecture 2 hours, laboratory 2 hours.)

280. Sign Language (3)

Sign Language and Non-Vocal Communication Systems. Origin, development and principles of sign language. Practice with American Manual Alphabet, American Sign Language and Signing Exact English to provide basic conversational skills; other sign systems and modes of non-vocal communication are discussed.

281. Intermediate Sign Language (3)

Prerequisite: C D 280. Continuation of C D 280 (Sign Language and Non-Vocal Systems) with emphasis on development of receptive/expressive skills and building of vocabulary. Introduction into use of sign language in educational and therapy settings. Discussion of philosophical and cultural aspects of the deaf community. Required for school audiology credential. Letter grade only (A-F).

Upper Division

329. Introduction to Language Acquisition (3)

Introduction to the study of the acquisition of first and second languages. Linguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The influence of developmental stages and social and cultural factors on the individual. Letter grade only (A-F). Same course as LING 329.

330. Speech and Hearing Science (3)

This course examines human communication in its neurological, psychological, anatomical, physiological, acoustic and social aspects. Through readings, discussions, films and experiments the student is expected to become more appreciative, more aware, more analytical and more tolerant of the communication behavior of himself and other speaker/hearers.

373. Audiology I (3)

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.

431./531. Pediatric Audiology (3)

Prerequisite: C D 373. Pathologies of hearing loss (e.g., syndromes), High-Risk Register/case history, speech and voice characteristics of the hearing-impaired, behavioral observation audiometry, visual reinforcement audiometry, play audiometry, speech audiometry, auditory evoked response, acoustic immittance, counseling parents, hearing screening in the schools, hearing aids/special listening devices. (Lecture 2 hours, laboratory 3 hours.)

432./532. Audiology II (3)

Prerequisites: C D 373. Anatomy/pathology/ evaluation of the (1) outer and middle ears, (2) inner ear, (3) central auditory system, and (4) functional hearing loss, taking case history, and report writing.

440. Aural Rehabilitation for the Hearing Impaired (3)

Prerequisites: C D 373 and C D 431 or 432. Acoustic features of speech, visual features of speech, hearing impairment and counseling, vibrotactile communication, total communication and the deaf community, speech reading, the geriatric population, assistive listening devices, cochlear implants, learning and hearing impairment, assessment tools, hearing aid evaluation and case history, amplification/hearing aids in the classroom, and classroom acoustics/noise.

456. Speech Pathology I: Disorders of Phonology (3)

Prerequisites: CD 261, 271, 329. Etiology, assessment, and treatment for disorders of phonology.

460./560. Language Assessment of the Limited English Proficient Child (3)

Prerequisites: CD 329 or equivalent, or consent of instructor. Provides an understanding of the non-discriminatory assessment process for the Limited English Proficient child referred for a language assessment. (Lecture-Discussion.) Letter grade only (A-F).

466./566. Speech Pathology II: Fluency Disorders (3)

Prerequisite: CD 261, 271, 330. Etiology, assessment, and therapy for disturbances in the fluency of speech with emphasis on psychological, physiological, and linguistic variables correlated to disfluent behaviors.

476./576. Speech Pathology III: Disorders of Voice/Oro-facial Mechanism (3)

Prerequisites: C D 261, 271, 330. The 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.

481A./581A. Speech Pathology IV: Disorders of Language (3)

Prerequisites: CD 271, 329, 330. An analysis of the components of language and how each is involved with language disorders in children. Provides for the understanding and recognition of variables for the assessment and clinical management of such children.

481B./581B. Speech Pathology IV: Disorders of Language Neuropathologies (3)

Prerequisite: CD 271, 329, 330. 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.

483. Assessment of Monolingual and Bilingual Clients (3)

Prerequisites: CD 261, 271, 329, 330 and either ANTH 170 or a course in language and culture/society. 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. (Lecture 2 hours, laboratory 3 hours.)

489. Management of Monolingual and Bilingual Clients (3)

Prerequisites: CD 483. Pre- or corequisites: At least 4 of the following: CD 456, 466, 476, 481A, 481B. Principles underlying management procedures in speech and language disorders for monolingual, bilingual, and/or bicultural clients. Focus is on the relationship of assessment to management, formulation of objectives, task analysis, data collection, clinical techniques and materials, and transfer and maintenance programs (including parent training). 25 hours of clinic observation and participation will be distributed equitably between campus clinic, schools, and hospital/rehabilitation settings. (Lecture 2 hours, laboratory 3 hours.)

491. Proctoring in Communicative Disorders (2-3)

(Open only to students who have achieved the grade of "A" in the course in which they are serving as proctor.) Advanced students shall engage in peer teaching and examination scoring in specific Communicative Disorders undergraduate courses under the specific direction of the course instructor. May be repeated for credit 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 for a maximum of six units. Not acceptable for graduate credit toward the master's degree.

Graduate Level

530. Audiological Instrumentation (3)

Prerequisite: Consent of instructor. Acoustics/ decibel, psychoacoustics, calibration of pure-tone and speech audiometers, sound field calibration, industrial audiology and noise measurement. (Lecture 1 hour, laboratory 6 hrs.)

531./431. Pediatric Audiology (3)

Prerequisite: C D 373. Pathologies of hearing loss (e.g., syndromes), High-Risk Register/case history, speech and voice char-

acteristics of the hearing-impaired, behavioral observation audiometry, visual reinforcement audiometry, play audiometry, speech audiometry, auditory evoked response, acoustic immittance, counseling parents, hearing screening in the schools, hearing aids/special listening devices. (Lecture 2 hours, laboratory 3 hours.)

532./432. Audiology II (3)

Prerequisites: C D 373. Anatomy/pathology/ evaluation of the (1) outer and middle ears, (2) inner ear, (3) central auditory system, and (4) functional hearing loss, taking case history, and report writing.

560./460. Language Assessment of the Limited English Proficient Child (3)

Prerequisites: CD 329 or equivalent, or consent of instructor. Provides an understanding of the non-discriminatory assessment process for the Limited English Proficient child referred for a language assessment. (Lecture-Discussion.) Letter grade only (A-F).

566./466. Speech Pathology II: Fluency Disorders (3)

Prerequisites: CD 261, 271, 330. Etiology, assessment, and therapy for disturbances in the fluency of speech with emphasis on psychological, physiological, and linguistic variables correlated to disfluent behaviors.

574. Hearing Aids (3)

Prerequisite: Consent of instructor. Electro-acoustic characteristics, hearing aid evaluation in children and adults, case history, probe tube measurements, earmolds, binaural hearing aids, CROS and its modifications, signal processing and control, programmable hearing aids, digital hearing aids, batteries, assistive listening devices, hearing aid orientation and counseling, cochlear implants, classroom amplification and acoustics, hearing aid dispensing.

576./476. Speech Pathology III: Voice/Oro-Facial Mechanism (3)

Prerequisites: C D 261, 271, 330. The 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.

581A./481A. Speech Pathology IV: Disorders of Language (3)

Prerequisites: C D 271, 329, 330. An analysis of the components of language and how each is involved with language disorders in children. Provides for the understanding and recognition of variables for the assessment and clinical management of such children.

581B./481B. Speech Pathology IV: Disorders of Language Neuropathologies (3)

Prerequisites: CD 271, 329, 330. 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.

590. Advanced Topics and Current Issues in Communicative Disorders (1-3)

Selected topics from the most recent developments and issues in speech-language pathology and audiology. Course content will vary with each offering. May be repeated for credit under different topics for a maximum of three units. Topics will be announced in the *Schedule of Classes*.

662. Seminar in Language Disorders in Children (3)

Prerequisite: C D 481A, 696. The components of language, cognitive and perceptual abilities and communication are examined in children with normal and impaired language development. Major approaches to language intervention are discussed.

663. Seminar in Disorders of Phonology (3)

Prerequisites or corequisite: CD 456. Information in the description, assessment and treatment of phonological disorders. Survey of current literature and practices. Practice in conducting procedures.

664. Seminar in Disorders of Voice and the Oro-facial Mechanism (3)

Prerequisites: C D 476, 696. Selected problems in voice disorders through an investigation of the literature and clinical research.

665. Seminar in Language Disorders in Adults (3)

Prerequisites: C D 481B, 696. Provides an understanding of neuro-pathological 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.

666. Seminar in Fluency Disorders (3)

Prerequisites: C D 466, 696. Historical and current research and its effect upon the assessment and management of fluency disorders.

669A. Clinical Practice in Phonological Disorders (2)

Prerequisites: C D 489; pre- or co-requisite: C D 663 and consent of instructor. Student conducts assessment of phonological disorders and management of therapy, under supervision, with clients in the university speech and hearing clinic. Students handle all aspects of clinical program including initial interviews, parent counseling, and testing.

669C. Clinical Practice With Language Delayed/Disordered Children (2)

Prerequisites: C D 483, 489; pre- or co-requisite: C D 662 and consent of instructor. Students provide assessment and management of preschool and school-age children with identified delays/disorders. Under supervision, the practicum includes standardized and non-standardized assessment, parent interviews and conferences, development and implementation of a management program and report writing. Letter grade only (A-F).

669D. Clinical Practice with Voice and Oro-facial Mechanism Disorders (2)

Prerequisites: C D 489; pre- or co-requisite: C D 664 and 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.

669F. Clinical Practice with Fluency Disorders (2)

Prerequisites: C D 489; pre- or co-requisite: C D 666 and consent of instructor. Assessment, planning, and management in a supervised clinical experience with persons who have fluency disorders.

669G. Clinical Practice in Audiology (2)

Prerequisites: C D 431, 432, 440, and consent of the instructor. Student will conduct individual and group therapy with hearing impaired clients, as well as audiological evaluation of hearing impaired persons.

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.

669J. Clinical Practice with Language Disordered Adults (2)

Prerequisites: C D 489; pre- or co-requisite: C D 665 and consent of instructor. Student conducts clinical management sessions, under supervision, for adults with neurological language disorders. Practicum includes initial interviews, assessment, management program planning, counseling and report writing, and application of research findings to the clinical process.

669L. Clinical Practice with Linguistically Different Clients (2) F, S

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/or CD 560; 4) and consent of instructor. Practicum includes assessment and management of speech and language disorders in clients whose native language is determined to be different from that of the student clinician. Under supervision, students choose, train, and direct a bilingual interpreter with whose assistance the student clinician provides clinical services in the client's native language. (A minimum of 25 clinical clock hours is required). Letter grade only (A-F).

670. Internship in Speech and Language Pathology (5)

Prerequisites: C D 669A or C,D,F,G, and J with a GPA of 3.0. Advanced clinical supervised practice with speech and language disordered persons in either a hospital, rehabilitation agency or speech and language center.

673. Assessment of Outer, Middle, and Inner Ears (3)

Prerequisite: Consent of instructor. Advanced masking concepts, anatomy/physiology/pathology of the outer-middle-inner ears, immittance testing, calibration of immittance meters, functional hearing loss.

674. Seminar in Audiology: Current Topics in Hearing and Hearing Aid Evaluation (3)

Prerequisite: Consent of instructor. Emphasis will be placed on critically analyzing recent articles in (1) hearing aid evaluation for children and adults, (2) evaluating special populations (the elderly, difficult to test, school, and/or industrial), and (3) current topics in audiology. This course will allow students to obtain an in-depth knowledge in areas of interest, and will allow the instructor to share areas of expertise. Course may be repeated to a maximum of 6 units.

675. Assessment of Central Auditory Nervous and Vestibular Systems (3)

Prerequisite: Consent of instructor. Anatomy/physiology/pathology of the 8th cranial nerve, vestibular system, brainstem, and central auditory system; auditory evoked potentials, calibration of auditory evoked systems, tone decay, Bekesy, SISI, ABLB, electronystagmography, functional hearing loss.

679. Practicum in Audiology (2-10)

Prerequisites: C D 431, 432, 440, or consent of instructor. Student conducts evaluation and rehabilitative sessions under supervision with persons with more complex hearing disorders. Student handles all aspects of the audiologic program including evaluation, consultation, program planning and execution. May be repeated for credit to a maximum of 10 units.

680. Internship in Audiology (5)

Prerequisites: CD 669A or B or C, 679 and 669G, or consent of the instructor. Advanced clinical practice in audiology with hearing impaired persons in a community facility.

686A. Advanced Field Studies with Communication Handicapped (5)

Prerequisites: Passing of CBEST, completion of C D 662, 664, 665, 666, and all but one of the following: 669A, 669C, 669D, 669F, 669G, 669J. Enrollment by application to the Communicative Disorders Department only. Assignments to one or two settings with a commitment of 3 or 5 days a week depending on credential objective. Inservice meetings with University Coordinator to be arranged. Clinical Rehabilitative Services, Language Speech and Hearing Specialist students are assigned to complete a practicum in an itinerant speech and language setting for the equivalent of one semester earning 5 units of field study. Credit/No Credit grading only. (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 for a maximum of 6 units.)

696. Research Methods: Applied and Basic (3)

Prerequisite: PSY 110 or equivalent or consent of instructor. This course is taken the first semester of graduate study. This course focuses on the application of the scientific method in the experimental and clinical settings. Scientific reasoning applied to the clinical and research process is stressed through examination of group and single-subject designs. Strategies and procedures for the control and manipulation of independent variables to effectuate change are explored. Evaluation of the components of research articles and their application to the clinical and research processes are introduced into class readings and discussions. Methods for the organization and analysis of clinical and research data are presented. (Lecture 3 hours.)

697. Directed Research (1-3)

Pre- or Corequisite: C D 696 and consent of instructor. Independent research under supervision of a faculty member.

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.

COMMUNICATION STUDIES

College of Liberal Arts

Chair

Sharon D. Downey

Department Office

McIntosh Humanities Building (MHB), Room 717

Telephone

(562) 985-4301 or 985-4302

Faculty

Professors

Terre Allen

Karl W. E. Anatol (Emeritus, 2002)

Nancy E. Briggs

Sharon D. Downey

Patricia Kearney

G. Bruce Loganbill

James S. Manseau Saucedo

Valerie C. McKay

Timothy G. Plax

Richard E. Porter (Emeritus, 2000)

Karen Rasmussen

Craig R. Smith

Fathi S. Yousef (Emeritus, 2000)

Associate Professors

Aaron Cargile

José Rodriguez

Assistant Professors

Guy Bachman

Amy Bippus

Norah Dunbar

Mary McPherson

Marc Rich

Matt Taylor

Stacy Young

Department Secretary

Wendy Lucas

Hauth Center for Communication Skills

Administrative Director

Terre Allen

Technical Director

Scott Allen

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information about the communication studies program at CSULB should contact the department undergraduate advisor or the graduate advisor.

Located within the College of Liberal Arts, the Department of Communication Studies provides students with a solid 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 maintains a tradition of liberal education which traces the world's heritage of humanistic tradition in its multicultural diversity. The communication studies curriculum focuses on issues of ethics, creative thought, historical and scientific inquiry, critical thinking, understanding of communication phenomena, aesthetic expression, and the development of excellent human communication skills. To this end, the Department of Communication Studies provides two major services to the University community. First, through specialized curricula, the Department stresses inquiry, analysis, and critical evaluation to students who seek to apply a comprehensive background of communication theory and practice in business, industry, professional fields, or education. Second, through its general education and service offerings, the department provides a variety of courses stressing critical thinking, and oral and written communication designed to give all students experiences in the traditions of the liberal arts and to prepare them for responsible citizenship in a pluralistic society.

The various degree options in the Department of Communication Studies are intended to provide students with the opportunity to emphasize an area of communication studies which will best suit their personal and career goals. Each student is required to consult with the department undergraduate or graduate advisor as appropriate for advisement. Student advising is available during the Fall and Spring semesters only.

NOTE: Lower division 100 and 200 level classes taken through California Community Colleges satisfy lower division CSULB Communication Studies requirements.

Bachelor of Arts in Speech Communication

The Department of Communication Studies offers three undergraduate degree programs in Communication arts and sciences: The Bachelor of Arts Degree in Speech Communication, the Option in Interpersonal and Organizational Communication, and the Option in Rhetorical Studies.

Speech Communication majors will not be permitted to take any class in the major on a credit/non-credit basis. Speech Communication majors will not be permitted to drop a class in the major after the third week of classes without compelling justification or unless they present acceptable evidence of a change of work schedule that causes a conflict between their work hours and their class schedule, or unless they are totally withdrawing from the University.

Six of the lower division units may be applied to meet General Education requirements in oral communication and critical thinking.

Option in General Speech (code COMMBBA01) (120 units)

The General Speech option, as the title implies, is concerned with all the dimensions found in the communication field. It requires course work in both the rhetorical and behavioral dimensions of the field and then permits the student to elect additional work in communication theory, rhetoric and public address.

Requirements

This major consists of 48 units of which 39 are upper division.

1. Nine lower division units including COMM 110, 131, and three lower division units from COMM 130, 132, 171, or 220.
2. A core consisting of 18 units drawn from COMM 300, 301, 306, 307, 309, and 330.
3. Six units in performance courses drawn from COMM 331, 333, 334, 335, 338, 344, 352, 358.
4. Nine units in theory courses drawn from COMM 400, 410, 411, 412, 430, 433, 436, 437, 439, 441, 449, 490.
5. Six units in special studies drawn from COMM 337, 414, 420, 421, 432, 442I, 450, 452, 490

Only courses in which adequate ("C" or above) grades 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.

Option in Interpersonal and Organizational Communication (code COMMBBA03) (120 units)

The Interpersonal and Organizational Communication option is designed for students who wish to prepare themselves for careers in public and private organizations requiring well-developed communication skills and a knowledge of interpersonal and organizational behavior. Students choosing this option will study the theoretical and applied aspects of interpersonal and organizational communication as they function in complex organizations. They will also develop a wide range of communication skills useful in organizational environments.

Requirements

This major consists of 48 units of which 36 are upper division.

1. Twelve lower division units including COMM 110, 130, 220, and three lower division units from COMM 131, 132, or 171.
2. A core consisting of 24 units drawn from COMM 300, 301, 306, 307, 309, 330, 410, and 420.
3. Six units in performance/special studies courses drawn from COMM 331, 333, 334, 335, 338, 355, 414, 421, 432, 439, 441I, 442I, 450, 452, 490, 492A or 492B or 495.
4. Six units in theory courses drawn from COMM 344, 400, 411, 412, 430, 433, 449, 490.

Only courses in which adequate ("C" or above) grades 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.

Option in Rhetorical Studies (code COMMBBA02) (120 units)

The Rhetorical Studies option is designed for students who wish to approach the study of human communication from a cultural or historical-critical perspective. In this option, students will give particular attention to the historical development of rhetoric, the study of persuasion, popular and media culture, and political and public affairs.

Requirements

This major consists of 48 units of which 39 are upper division.

1. Nine lower division units including COMM 130, 131, and three lower division units from COMM 132, 171, or JOUR 110.
2. A core consisting of 18 units drawn from COMM 300, 301, 306, 307, 309, and 330.
3. Six units in performance courses drawn from COMM 331, 333, 335, 336, 337, 352.
4. Nine units in theory courses drawn from COMM 433, 436, 437, 439, 441I, 449, 490.
5. Six units in special studies drawn from COMM 411, 412, 421, 430, 432, 442I, 492A or 492B or 495.

Only courses in which adequate ("C" or above) grades 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.

Minor in Speech Communication (code COMMUM01)

The Minor in Speech Communication is available to any non-Speech Communication 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.

Master of Arts in Speech Communication

The Department of Communication Studies at California State University, Long Beach offers two tracks leading to the Master of Arts degree. The Option in Speech Communication involves advanced work in communication studies. A student may construct a personalized program that draws from the following areas: rhetorical, interpersonal, organizational, or intercultural communication, performance studies, forensics, or instructional communication.

The second option, Communication and Human Information Systems, is limited to college graduates who have at least two years of management or managerial-type experience in the public or private sector. The focus in this option is on the knowledge of and skills in interpersonal, organizational, and intercultural communication that are necessary to enhance one's ability to function and lead effectively in different organizational settings.

Admission

1. Application for Admission to the University. The office of Enrollment Services processes applications to the University (forms available through that office) 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 on-line at the Department's web site (<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). The decision to admit is never based on a single indicator. Students who do not meet these requirements may seek admission through appeal.

3. **Admissions Appeal Policy.** Students whose GPA and/or GRE scores are below the minimum may seek admission through an appeal letter to the Graduate Advisor. The Graduate Advisor shall distribute copies of any appeal letters to the Graduate Committee. The Graduate Committee shall consider the merits of each appeal letter and determine whether an exception ought to be made with regard to the GPA and/or GRE requirements. The decision of the Graduate Committee is final. Students who are not accepted into the program may not enroll in graduate courses in the Department of Communication Studies. Graduate courses taken through Open University will not apply to the student's degree program in the Department of Communication Studies.
4. **Teaching Associateships and Graduate Assistantships.** Employment as a Teaching Associate or Graduate Assistant falls under the jurisdiction of the Personnel Committee of the Department. The positions pay approximately \$950.00 per month. Tuition is not waived. Interested students should send letters of application, transcripts, GRE scores, and three letters of recommendation to: Chair, Department of Communication Studies, California State University, Long Beach, 1250 Bellflower Blvd., MHB-717, Long Beach, CA 90840-2407.
5. **Advising.** Consult the Graduate Advisor to plan a program of study and to receive information regarding Department procedures prior to enrollment. The Graduate Advisor and/or a faculty mentor will guide students through their programs.

Prerequisites and Requirements

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. The University mandates that students pass the Graduate Writing Proficiency Examination or its equivalent. Persons who have passed the CSULB University Writing Examination do not need to take the test again. If you believe you have taken an equivalent examination, consult the

Graduate Advisor. Students should pass an acceptable writing examination no later than the end of the first semester of graduate study.

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 546. Individuals may petition for waiver of this rule prior to registering for courses if compelling reasons warrant such a waiver.
3. Students must comply with all University regulations outlined in the *CSULB Catalog*.

Option in Speech Communication (code COMMMA01)

Prerequisites

Individuals with a Bachelor's degree in Speech Communication (or its equivalent) from a fully-accredited college or university must have approved coursework in:

- A. Survey of Rhetorical Theory (COMM 300)
- B. Communication Criticism (COMM 301)
- C. Measurement in Communication Research (COMM 307)
- D. Communication Theory (COMM 306)
- E. Language and Behavior (COMM 309)

Requirements

1. A minimum of thirty hours of graduate work in Speech Communication distributed as follows:
These requirements are those listed in the 1996-97 *University Catalog* and thus are relevant to students advancing to candidacy during or after Fall 1995. For requirements applicable to students advancing to candidacy prior to Fall 1995, consult appropriate *University Catalog*.
 - A. COMM 541 and 546 to be completed prior to advancement to candidacy and preferably within the first semester of graduate work (6 units);
 - B. twelve units consisting of:
 - 1) COMM 640 and 646 (6 units),
 - 2) one course selected from COMM 633, 635, 636, 637, 638 or 639 (3 units), and
 - 3) one course selected from COMM 600, 610, 611, 614, 620, 630, 632, 648, or 649 (3 units).
 - C. twelve elective units of 500 or 600 level coursework approved by the student's advisor and the Graduate Committee, including four thesis units (COMM 698) if the student elects the thesis option.
2. A minimum of six graduate units taken from one or any combination of the following areas:
 - A. graduate courses from within the Department of Communication Studies,
 - B. graduate courses from outside the Department of Speech Communication (maximum of six units)
 - 1) classes taken outside the discipline in a department at California State University, Long Beach require prior approval by the Graduate Committee,
 - 2) classes taken outside the discipline in a department at another university require approval by the Graduate

Committee, or

- 3) classes taken within the discipline in a department at another university.
3. Completion of the Department's Comprehensive Examination or of an acceptable thesis.
4. Please note that Internships and student teaching cannot be included in the required thirty units.

Option in Communication and Human Information Systems (code COMMMA02)

Prerequisites

1. Candidates must possess a bachelor's degree from a fully-accredited college or university.
2. Individuals must have a minimum of two years of full-time management or management-type experience in public and/or private organizations. Candidates must have experience in two of the following categories:
 - A. LEADING – managing in close, day-to-day contact with employees or work groups,
 - B. PLANNING – defining missions, goals, and objectives of an organization,
 - C. ORGANIZING – structuring tasks and authority; e.g., defining job specifications, dividing work loads, supervising group activities, recruiting and hiring employees, and delegating authority, and
 - D. CONTROL – setting and implementing work standards and evaluating employees' performance.
3. Students must complete the following courses or their equivalents: COMM 307, 306, 309, 410, 420

(Documentation of management experience should accompany the application to the program. The Graduate Advisor and the Graduate Committee determine whether a candidate meets the experiential criteria for admission into the program. The Graduate Advisor informs candidates of their status).

3. Students must complete the following courses or their equivalents: COMM 307, 306, 309, 410, 420

Requirements

1. Candidates must complete the following core curriculum: COMM 546, 610, 620, and 630.
2. Students must complete a minimum of fifteen units drawn from the following: COMM 600, 611, 614, 632, 646, 648, 650, and 697.
3. Individuals may petition to substitute COMM 541 or a 600-level course within the Department's graduate offerings for one of the optional courses. Such substitution will be approved only if accompanied by a rationale arguing that it is integral to the student's program of study.
4. Candidates must pass a written Comprehensive Examination.

Enrollment in Communication Studies 697

COMM 697 (Directed Research) should enable students to study topics and methods not normally available through regular coursework. Persons who choose the Thesis Option MAY NOT use COMM 697 to complete any part of the thesis project; however, COMM 697 may function to develop research proficiencies relevant to the thesis. The policy regarding COMM 697 is:

1. The Graduate Committee will approve inclusion of COMM 697 in a graduate program only if:
 - a. the research topic is not available through regular coursework during the student's tenure in graduate study,
 - b. the student has completed 6 units from the graduate core courses,
 - c. the student has been advanced to candidacy or has submitted her or his Graduate Program to the Graduate Advisor.
2. Students may take a maximum of three units of COMM 697.
3. Candidates must secure approval for COMM 697 before taking the course. Prior to the semester of enrollment, students must submit two forms to the Graduate Committee:
 - a. a "Petition for Directed Research,"
 - b. an "Agreement for Independent Study Course" signed by the graduate faculty member directing the independent research (obtain this form from the Department office)
4. The Graduate Committee will determine whether the proposed study conforms to the purposes of COMM 697. The faculty member directing the research has the responsibility of judging the student's ability to complete the research and also assigning the grade for the project.
5. Students must file their final 697 projects with the Department Chair.
6. Only members of the Department graduate faculty may direct COMM 697.

Advancement to Candidacy

Advancement to Candidacy defines a candidate's program of study and establishes her or him as an official graduate student in the University. Programs must meet the requirements in effect at the time of advancement. Candidates must submit the form for advancement required by the College of Liberal Arts (forms available in the Department office) to the Graduate Committee. Individuals are eligible for Advancement to Candidacy in the Option in Speech Communication after completing COMM 541 and 546. In the Option in Communication and Human Information Systems, students are eligible for Advancement to Candidacy after completing six units from the core requirements. In both options, students should have an average of "B" or better to be advanced to candidacy. Candidates considering the thesis option should submit a list of ten or more courses, starring (*) the class or classes to be omitted if the thesis option is selected.

1. To qualify for advancement, a person must:
 - a. be enrolled in the University during the semester or session he or she requests advancement,
 - b. have removed all deficiencies,
 - c. have earned a minimum cumulative grade point average of 3.0 (B) for work taken – i.e., graduate courses and undergraduate prerequisites,
 - d. have completed six units of graduate core courses with an average of "B" or better,
 - e. have passed the Graduate Writing Proficiency Examination or completed its equivalent.
2. If the student fails to petition for Advancement to Candidacy at the recommended time, he or she must do so at least one semester prior to the semester in which she or he

intends to graduate. The deadline each semester is exactly four weeks before the last day of instruction. Do not wait for the deadline! The Graduate Committee may require the student to resubmit a program. Students can neither take the Master's Comprehensive Examination nor enroll in COMM 698 until a program is approved.

3. All submitted programs should indicate the semester in which courses were or will be taken and should report ALL grades in courses completed. No grades of Incomplete (I) or Satisfactory Progress (SP) can appear on the program.
4. If a program contains courses taken outside the Department, a student must obtain approval from the Graduate Advisor and the Graduate Committee before including such classes in her or his course of study. This restriction applies to courses taken at CSULB and to ones transferred from other colleges or universities. Failure to obtain Graduate Committee approval for including such courses prior to enrollment may result in students' taking classes which cannot be included in their programs of study. Candidates must submit the appropriate petition to the Graduate Committee to obtain the necessary approval.
5. After receiving the appropriate form, "Petition for Advancement to Candidacy," the Graduate Advisor will seek approval of the Graduate Committee and the Graduate Dean of the College of Liberal Arts.

Change in Graduate Program

If a student desires to amend her or his program of study after its approval, he or she must submit the College of Liberal Arts "Change of Program" form (available in the Department office) to the Graduate Committee for approval. Approval must be given prior to enrollment in any courses involved in the change; otherwise, the course will not be considered part of the minimum thirty units needed to complete the degree.

Comprehensive Examination Option

1. Comprehensive Examinations are given during the third weeks of November and April for the Fall and Spring semesters, respectively. Students may not take their Comprehensive Examinations during either the Winter or Summer sessions.
2. The following provisions govern election of the Comprehensive Examination Option:
 - A. If a student elects the Comprehensive Examination option at the time of approval of her or his Graduate Program, the student may not change to the thesis option except with a special permission from the Graduate Committee.
 - B. Eligibility: Candidates may take the Comprehensive Examination if they have:
 - 1) been advanced to candidacy, and
 - 2) maintained a grade point average of at least 3.0 (B) in courses in the Master's degree program (i.e., graduate classes and prerequisites).
3. Description and Preparation
 - A. Description. The Examination consists of two sections:
 - 1) a written section spanning three, three-hour sessions during a single week,
 - 2) an oral defense, generally held within two weeks of writing the examination. The oral defense permits the student to elaborate on written answers and to answer

questions that may develop out of those answers. Other discussions may arise from issues that occur to the examining committee during the oral segment of the Comprehensive Examination.

- B. Preparation. Students should prepare for the Examination by beginning their study well before the actual assignment of an examining committee. Once the Graduate Committee appoints that group, a candidate should meet with his or her Committee Chair to discuss procedures relevant to the Examination. Individuals are responsible for the subject matter of their courses regardless of whom the instructor is. The persons on their committees may or may not be those who have taught the actual seminars taken by the candidates. Professors writing questions are under NO obligation to discuss them with the students. The professors may, however, choose to provide candidates with general guidelines to aid in preparation for the Examination. Students should be familiar with all relevant literature integral to a particular area. Because the Examination is "closed book," no notes may be taken into the examination room. Students may obtain bibliographies from individual instructors or from the Graduate Advisor.
4. Student Petitions, Committee Formation, Guidance, and Facilities/Supervision
 - A. Petitioning. Students must petition to take the Comprehensive Examination no later than the end of the semester prior to the term in which they will write the Examination. Students may not petition to take the Comprehensive Examination until all grades of Incomplete (I) and/or Satisfactory Progress (SP) have been removed.
 - B. Committee Assignment. The Graduate Committee will consider petitions and assign committees during the last week of the first month of each semester. The examining committee consists of three examiners with one member serving as chair. Each member will compose questions for one of the three sessions of the examination.
 - C. Guidance. Graduate students taking the Comprehensive Examination should understand that faculty are free to develop questions from the subject areas in which students take courses, including the undergraduate core. Candidates are responsible for the subject matter in those areas whether or not such material is addressed in a particular class. Faculty may, but are not required to, provide guidance about the content for which the student is responsible. Faculty may, but are not required to, provide sample questions, reading lists, and/or assign open-ended questions for study. Furthermore, graduate students should understand that questions normally require integration of material in original ways.
 - D. Facilities/Supervision
 - 1) The Department will provide rooms in which candidates can write the examination.
 - 2) Students wishing to use computers may bring their own computers, or make arrangements with a specific faculty member to use that person's computer.
 - 3) The Graduate Advisor or his/her designee will be available on each day of the Examination to answer questions and cope with difficulties.
 5. Defense, Decision, and Appeal Procedure
 - A. Each Comprehensive Examination Oral Defense will be

gin by giving candidates the opportunity to explain any revisions they feel will strengthen their written responses.

B. Decisions of the Comprehensive Examination Committees

1) A Comprehensive Examination Committee may render one of the following decisions:

Pass: Three votes to pass

Fail: Three votes to fail

Rewrite: Two pass, one fail

Fail: One pass, two fails

2) If two members of the committee vote to pass and one votes to fail, the student shall be given the opportunity to rewrite once in the area of deficiency. Students must receive question(s) for revision within three working days of the oral examination. The student must respond in writing to the faculty member(s) by the final day of instruction of the semester as specified by the University calendar. The committee will reconvene during the final examination week to review the student's work and to decide whether the candidate passes or fails the Comprehensive Examination.

3) If the Committee's decision is that the candidate failed the Examination, members shall make themselves available to the candidate to explain their decisions and to facilitate his or her preparation to retake the Examination. A student may petition to retake the Examination no earlier than the semester following that in which she or he has first taken the test. The Examination may be retaken only once.

C. The Department will use the following procedure if a student appeals the decision of a Comprehensive Examination Committee:

1) The Graduate Committee of the Department will serve as the review board to determine whether the appeal has merit on procedural grounds.

2) Members of the Graduate Committee will be ineligible to serve on the review board if they are part of the original examining committee.

3) If such eligibility reduces the membership of the Graduate Committee to fewer than three persons, a replacement will be selected by lottery from among remaining eligible members of the Department faculty.

Thesis Option

1. Electing the Thesis Option

A. This option requires a candidate to include four units of COMM 698 (Thesis) in her or his program. Students may not enroll in COMM 698 until after Advancement to Candidacy or, in rare cases, when advancement occurs in the same semester as the initial enrollment. Note that the Department facilitates timely Advancement to Candidacy of persons writing a thesis by allowing them to submit an advancement form listing ten courses (30 units) or more and starring (*) the course or courses to be omitted if the thesis option is selected.

B. The "Petition for Permission to the Elect the Thesis Option"

1) The candidate must submit the petition to the Graduate Committee through the Graduate Advisor. The form provides space for the signatures of the proposed committee members certifying their willingness to serve on the committee and their approval of the candidate's prospectus. Acceptance of the prospectus by the Thesis Committee

certifies both the acceptability of the thesis topic and the willingness of the Committee to direct the student's thesis.

2) The Graduate Committee will not approve the petition until the student completes all requirements in COMM 541 and 546.

C. The Thesis Committee

1) The student is responsible for securing faculty to serve on her or his Thesis Committee. At least two members of a three-person committee or three members of a five-person committee must be tenure-track or tenured faculty from the Department of Communication Studies. Faculty holding parallel status in other departments at CSULB or in other Communication Studies departments in the CSU system may fill the other slots on the committee.

2) The Committee Chair must be a member of the Department's graduate faculty.

D. The candidate shall prepare a prospectus in consultation with the Thesis Committee Chair and other committee members. The project should be more than a minor extension of a seminar project. It should constitute an original contribution to literature in communication studies and should develop a student's research abilities. Candidates must submit a completed, approved prospectus to the Graduate Committee no later than the semester prior to that in which the thesis is to be completed.

2. Completing the thesis

A. COMM 698

1) If the "Petition for Permission to Elect the Thesis Option" is approved by the Graduate Committee, a student may not change to the Comprehensive Examination Option except by special permission of the Graduate Committee. If a student has been enrolled for a semester or more in COMM 698, he or she cannot change options under any condition.

2) If a candidate does not demonstrate satisfactory and continuous progress on the thesis after enrolling in COMM 698, the Graduate Committee, on the recommendation of the Thesis Committee and/or the Graduate Advisor, may terminate the student's graduate program and, if the student is enrolled in COMM 698 at the time, will assign an "F" for the semester.

3) The Department may endorse a petition for one semester of concurrent enrollment in COMM 698 and in another graduate or professional school only if the candidate's Thesis Committee presents evidence that a draft of the thesis requiring only mechanical revision has been submitted.

B. Neither the Thesis Committee nor the Department is responsible for advising or supervising thesis candidates when they are not enrolled in the graduate program.

C. For thesis specifications and deadlines consult:

1) The University Thesis Reviewer whose office is in the Library;

2) the official thesis document: *Master's Thesis and Projects: Guide to Style and Format*;

3) the Thesis Committee;

4) thesis guidelines available in the following manuals:

a) typing requirements (e.g., formatting, table of contents, appendices, etc.): Turabian, Kate. *A Manual for Writers of Term Papers, Theses, and Dissertations*, latest edition

b) style sheets for technical requirements:

i) *Publication Manual of the American Psychological Association*, latest edition, or

ii) *MLA Handbook for Writers of Research Papers*, latest edition

D. Approval of the completed thesis

1) Upon completion of an acceptable thesis, the student will defend the thesis before the Thesis Committee. Other departmental faculty and students may choose to attend. The Chair of the Thesis Committee will make all necessary arrangements for the oral defense and announce its time and place to the Department. The decision of the examining committee is by secret ballot and requires a majority vote. The Committee will notify candidates of their decision immediately after the oral defense. A candidate whose thesis and/or defense does not receive approval may revise and re-submit the thesis and/or defend it no sooner than the following semester. Resubmission or redefense, however, may take place only once.

2) The completed draft of the thesis must meet the approval of the University Thesis Reviewer.

3) Candidates must deposit the thesis in the University Library. Copies are given to the Department Library and to the Chair of the Thesis Committee if requested.

To Graduate

The *CSULB Catalog* states: "All requirements of the degree program must be completed within seven years of the date . . . when the first course appearing on the student program was completed. . . . A graduate student who expects to receive a degree at the end of any semester or summer session must be enrolled during that . . . [term] and must complete the Request to Graduate Form within the first three weeks of classes of the prior semester. Students completing their degrees in May or in the following summer session should file the application by the preceding October 1. Students completing their degrees January should file by the preceding February 15 at the Admissions and Records Office. . . . Graduate Studies 700 may be used to fulfill the enrollment requirement if the applicant has completed all degree program coursework prior to the semester of graduation."

Graduate Student Honors

Several honors for graduate students are awarded each year at commencement. In accordance with the Department policy, such honors shall be awarded to deserving students using criteria such as the following:

1. grade point average
2. papers published or presented at professional conferences
3. conventions attended
4. professional community service not a part of a student's employment
5. Graduate Communication Association involvement

6. Student Communication Association involvement

7. Departmental service — e.g., volunteer forensic assistant, class lecturer, committee membership

Financial Assistance

Refer to the *University Catalog* for information regarding financial assistance which is available on a University-wide basis.

Forms and Petitions

Sample forms and petitions relevant to enrolled graduate students appear in the Appendix of the Graduate Handbook available only to students registered in the Graduate Program.

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, 541, 546, 590, 600, 610, 611, 614, 620, 630, 632, 633, 635, 636, 637, 638, 639, 640 (540), 646 (696), 648, 649, 650, 697, 698

Undergraduate Core Courses

COMM 300 (440), 301 (435), 307 (230), 306 (446), 309 (448) Course numbers in parentheses are old course numbers.

Graduate Faculty

Terre H. Allen, Amy Bippus, Nancy E. Briggs, Aaron C. Cargile, Sharon D. Downey, Norah Dunbar, Valerie C. McKay, Patricia Kearney, G. Bruce Loganbill, Mary McPherson, Timothy Plax, Karen Rasmussen, Marc Rich, José Rodríguez, James S. Saucedo Manseau, Craig R. Smith, Mat Taylor, Stacy Young

Courses (COMM)

Lower Division

110. Interpersonal Communication (3)

Prerequisite: Concurrent enrollment in 110 Workshop. LECTURE: Basic characteristics of the 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 designed to develop interpersonal communications skills. (Lecture 2 hours, Workshop 2 hours). Not Open to students with credit in COMM 210. (CAN SPCH 8)

130. Essentials of Public Speaking (3)

Composition and delivery of speeches to inform and persuade. Logical organization is stressed. (CAN SPCH 4)

131. Essentials of Argumentation (3)

Corequisite: Concurrent enrollment in 131 workshop. Lecture: Theory of argumentation. Includes 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. (CAN SPCH 6)

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. (CAN SPCH 10)

171. Voice and Applied Speaking (3)

Application of speaking clarity and proficiency, voice quality and pacing, and related communication modification objectives. Speaking process is applied to realize personal, social, and professional verbal communication skills. Not Open to students with credit in COMM 271.

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. The student's specific assignments will be determined in consultation with the staff. Maximum credit, 4 units.

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. Survey of Rhetorical Theory (3) F

A history of major rhetorical theories from the ancient Greeks to the Twentieth century. Where theories are directly provided, as in the case of Gorgias, Plato, Aristotle, Cicero, Quintilian, Augustine, Machiavelli, Locke, and others, they are explained and explored. In such cases as Marx, Freud, and the existentialists, the theories are deduced from primary philosophical writings.

301. Communication Criticism (3)

Prerequisite: COMM 300. The 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. (Formerly 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)

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. Interpretive Communication of Literature (3)

Derivation of meaning in various literary forms and its communicative interpretation to specific audiences.

334. Business and Professional Communication (3)

Prerequisite: COMM 130 or consent of instructor. Skills and technologies related to the assessment, strategic planning, develop-

ment, implementation, and evaluation of effective communication in the business and professional setting.

335. Persuasive Speaking (3)

Prerequisites: Completion of GE Foundation requirements. Beginning with analysis of audience behaviors, this course teaches the skills necessary for advanced public speaking in various venues including legislative, legal, and ceremonial public address. The course explores various theories of motivation including speaker credibility, the use of emotional appeals, the importance of evidence and argument, style in language, and delivery 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. Max. credit, 4 units.

337. Conference Management (3)

Organization and direction of professional, business and political conferences or conventions; program simulation; leadership of and participation in decision making and parliamentary sessions. Course may be repeated to a maximum of 6 units.

338. Ensemble Interpretive Reading (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 primarily for prospective elementary, secondary, and community college teachers, this course focuses on communication theories, principles, and skills applicable to teaching more generally, and to the teaching of speech communication specifically. Because effective teaching relies on effective communication, this course focuses on those communication variables and strategies that contribute to greater student learning. Moreover, students, will develop an instructional package for teaching specific units in 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 Lecture and Lab. Basic characteristics of the nonverbal elements of human communication in the oral communication setting.

410. Advanced Concepts in Interpersonal Communication (3)

Prerequisites: COMM 110 and 307. 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: Completion of GE Foundation requirements, completion of one or more Explorations courses, and upper division standing. An 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: Completion of GE Foundation requirements, completion of one or more Explorations courses and upper-division status. Survey of theories and research literature with the objective of increasing students' understanding of, and familiarity with, major issues regarding communication between men and women in various contexts.

414. Communication in Families (3)

Prerequisites: COMM 307. A survey course emphasizing the 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.

420. Advanced Concepts in Organizational Communication (3)

Prerequisites: COMM 220 and 307. 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 and studied.

421. Communication in Bargaining and Negotiation (3)

Prerequisites: COMM 220 and 307. Role of communication in the decision-making process of negotiation and bargaining. Emphasis on the functions of communication in resolving disputes through bargaining.

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).

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 Interpretive Communication (3)

Trends and issues in the theoretical and historical development of oral interpretation as applied to current times.

436. Communication Strategies of American Speakers (3)

Prerequisites: COMM 300 and 301. Comparison and contrast of famous American speakers and their techniques, effects and environments from the colonial period to present.

437. Communication Strategies of International Speakers (3)

Prerequisites: COMM 300 and COMM 301. Comparison and contrast of famous International speakers and their techniques, effects, and environments from Demosthenes and Churchill to Hitler and Ghandi. Letter grade only (A-F). Course is not repeatable.

439. Communication and Popular Culture

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).

441I. Issues in Freedom of Communication (3)

Prerequisites: Upper division standing and completion of Foundation Level GE Courses, and at least two Exploration Level Courses. It is recommended that one of these be either COMM 331 (Argumentation and Debate) or COMM 335 (Persuasive Speaking). This course examines the evolution and impact of First Amendment rights on American society and its political system. The course emphasizes the evolution of the First Amendment from the colonial period to its adoption in 1791, significant Supreme Court cases interpreting First Amendment law, the First Amendment and electronic media, and the application of case law covering the clauses of the First Amendment that deal with religion, speech, press, and assembly. The course is recommended for pre-law students.

442I. Campaign Persuasion (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing, and at least two Exploration Level Courses. It is recommended that one of these be either COMM 331 or COMM 335. An 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.

449. Studies in Oral Persuasion and Attitude Change (3)

Attitude formation and change through oral communication; factors in persuasion; problems in determining the effects of persuasive messages; source credibility, message variables; and personality factors in the process of persuasion.

450. Communication Training in Organizations (3)

The nature and role of communication training in a variety of social, educational, and business organizations are investigated and analyzed. Communication effectiveness programs are examined and studied in terms of goals, structure, and impact. Use of audiovisual aids and communication training techniques are emphasized.

452. Communication in the Multinational Organization (3)

Study and analysis of communication patterns in multinational and multicultural organizational settings; the nature and impact of different organizational structures, value systems and cultural norms considered and examined in relation to productivity, employee and organizational obligations and expectations.

490. Special Topics in Speech Communication (3)

Topics of current interest selected for intensive study in speech communication. May be repeated with different topics for a maximum of 6 units. 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 to be directed and evaluated by the 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 335 or their equivalents; COMM 352 or 355 or 358, or the consent of instructor if one of these courses has not been taken; Consent of COMM 495 instructor. Service Learning Internship in Communication Studies is designed for dedicated Communication Studies majors to apply their academic knowledge of communication skills in the community outside of CSULB. Specifically, students will be trained by the instructors to provide public speaking, listening, interpersonal communication, group communication, multicultural communication, and/or interviewing skills training (1) to students in the elementary, middle, and high schools, or (2) to persons in the public sector. The purpose of the course is to serve others' needs for communication skills via strong connections among the community, CSULB, and the communication discipline. Letter grade only (A-F). Course 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. An 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.

541. Rhetorical Theory and Criticism I (3)

Introduction to research in rhetorical studies. Examination of major figures and schools of thought on rhetorical theory and criticism from the Pre-socratics through the modern British era.

546. Communication Theory and Research I

An 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.

590. Special Topics in Speech Communication (3)

Prerequisite: Consent of instructor. Investigation of topics of current interest and concern to students in speech communication and allied areas. Topics will be announced in the *Schedule of Classes*. May be repeated for credit with different topics, but no more than three units may count toward the master's degree in speech communication.

600. Seminar in Nonverbal Communication (3)

Prerequisite: COMM 546 or consent of instructor. Review and analysis of theoretical writings and critical studies in nonverbal communication; the relationship of nonverbal behavior to oral communication.

610. Seminar in Interpersonal Communication (3)

Prerequisite: COMM 546 or consent of instructor. Current theories and research in interpersonal communication.

611. Seminar in Negotiation and Conflict Resolution (3)

Prerequisites: COMM 411 or 421 and 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.

614. Gender and Family Research (3)

This course covers major theoretical perspectives that explain the role of communication in family and gender issues. Epistemological, conceptual, and methodological issues in researching family and gender communication are also explored. 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.

630. Seminar Intercultural Comm

Prerequisites: COMM 541 and 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 both international and domestic settings.

632. Seminar in Small Group Communication (3)

Prerequisite: COMM 546 or consent of instructor. Research in small group discussions.

633. Seminar in Interpretive Communication (3)

Prerequisite: COMM 541 or consent of instructor. Theories of communicative interpretation of literature, with emphasis upon the theory and evaluation of oral presentation of literature as an art form and a pedagogical instrument.

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.

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.

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).

638. Seminar in Greek and Roman Public Communication (3)

Prerequisite: COMM 541 or consent of instructor. Studies of Greek and Roman rhetorical events and their social, political and intellectual settings, application of rhetorical theory in the analysis of these events.

639. Seminar in Communication and Popular Culture (3)

Prerequisite: COMM 541 or consent of instructor. Surveys 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 546. Empirical research methodologies applied to communication research. Theory and design of scientific research; analysis of findings; computer applications. Research report required.

648. Seminar in Language and Behavior (3)

Prerequisite: COMM 546 or consent of instructor. Contemporary theories and models in linguistic, psycholinguistic and sociolinguistic research; communication discourse and speech acts analysis.

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.

650. Seminar in Instructional Communication (3)

Prerequisites: COMM 541 and 546 or consent of instructor. Designed for either beginning or experienced teacher/trainers, the course will identify those 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.

697. Directed Research (1-6)

Prerequisites: COMM 541 and 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 speech communication and the presentation of research results in a formal paper submitted to the department. Course may be repeated for a maximum of 6 units with different topics. (Independent Study)

698. Thesis (2-4)

Prerequisites: COMM 541, 546, 640 and 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.

COMPUTER ENGINEERING AND COMPUTER SCIENCE

College of Engineering

Department Chair

Sandra Cynar

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Faculty

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Michael Chelian

Sandra Cynar

Wayne Dick

Edward Evans

Sheila Foster (Emeritus, 2001)

Arthur Gittleman

Shui Lam

Dar-Biau Liu

Michael K. Mahoney

Carl Maltz (Emeritus, 2002)

Tracy Bradley Maples

Thinh Nguyen

Morton Schwartz (Emeritus, 2002)

Dennis Volper

Robert Wilson (Emeritus, 2002)

Associate Professors

Todd Ebert

Darin Goldstein

Michael Hoffman

Tom Johnson

Alvaro Monge

Assistant Professor

Colleen McCarthy

Undergraduate Advisors

Joel Carissimo

Tom Johnson

Graduate Advisor

Alvaro Monge

Administrative Support Coordinator

Janet Leimer

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring detailed information should contact the department for referral to one of the faculty advisors.

Accreditation

The Bachelor of Science in Computer Engineering is accredited by the Engineering Accreditation Commission (EAC) and the Bachelor of Science in Computer Science by the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – telephone: 410/347-7700; website: <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 Educational Objectives

All courses and programs in the Department of Computer Engineering and Computer Science are designed to meet the following objectives: Students will receive a comprehensive education in Computer Engineering and/or Computer Science, as well as the sciences and humanities, that will serve them in both their professional and personal lives. Students will be able to analyze and solve problems in Computer Engineering and/or Computer Science using modern techniques, skills, and tools. Students will be able to communicate effectively. Students will be able to design systems, components or processes that meet performance, cost, time, safety, and quality requirements. Students will understand their professional responsibilities, including remaining current in their field of study, and will be able to analyze the social and ethical implications of their work.

Undergraduate Degree Programs

The Department of Computer Engineering and Computer Science offers programs leading to a Bachelor of Science in Computer Engineering or a Bachelor of Science in Computer Science. The goal of both programs is to prepare graduates for a wide variety of computer-related careers by integrating the theoretical foundations of the discipline with practical applications. The degree in Computer Engineering focuses on computer hardware (design, construction, and operation of computer systems) while the Computer Science degree places more emphasis on computer software (programming). The high school student planning to enter either program is advised to pursue a strong program in science and mathematics.

Bachelor of Science in Computer Engineering (code CECSBS02) (129 units)

The Bachelor of Science in Computer Engineering degree program has a two-part objective. The first is to provide students with a strong background in mathematics, physics, and

engineering science. The curriculum includes a core of standard electrical engineering courses as well as courses in digital systems, computer organization, programming languages, and software, including operating systems, compiler theory and software engineering. The second objective is to provide students with the skills necessary to be effective contributors in a quality-oriented, customer-focused environment. Courses throughout the program, 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.

Requirements

Lower Division: CECS 174, 201, 228, 261, 274, 277; MATH 122, 222; PHYS 151, 152 (or EE 210 and 210L).

Upper Division: CECS 301, 311, 326, 340, 346, 347, 360, 440, 443, 447, 460A, 460B; EE 380 (or MATH 380), 386; MATH 323, 370A; plus nine units of approved electives to be selected from CECS 406, 451, 474, 475, 497, EE 486, ENGR 310 (or ENGL 317).

Bachelor of Science in Computer Science (code CECSBS01) (128 units)

The Bachelor of Science in Computer Science degree is designed to prepare graduates for a variety of professional careers in the computer field. The curriculum is designed to provide students with both breadth and depth in computer science. Breadth is achieved through a series of core courses that stress a balance between the theoretical and practical aspects of computer science. The topics covered in these courses include the following: the basics of programming languages, software design and analysis, data structures, algorithms, digital systems, computer organization, computer architecture, and operating systems. Extensive laboratory time is required for these courses, and design and analysis experiences are emphasized. Depth is achieved through courses (both required and elective) on advanced computer science topics. These courses provide students with in-depth knowledge of the material covered in the breadth portion of the curriculum.

Requirements

Lower Division: CECS 174, 201, 228, 261 or 281, 274, 277; MATH 122, 222, 247; PHYS 151, 152 (or EE 210 and 210L); four units of approved courses in science or with strong emphasis in quantitative methods.

Upper Division: CECS 323, 325, 326, 328, 340, 424, 440, 443; ENGR 350; MATH 323, 380 (or EE 380); ENGR 310 or ENGL 317; plus nine units of approved electives to be selected as follows: three (3) units from CECS 471, 475, 481; and six (6) units from CECS 405, 406, 419, 423, 426, 428, 444, 448, 449, 451, 470, 472, 473, 476, 497.

Minor in Computer Science (code CECSUM01)

The minor in Computer Science is designed to prepare students in other majors for careers in a wide variety of fields which require computer science expertise.

Requirements

A minimum of 24 units. CECS 174, 201, 228, 274, 277, 325 and two courses to be selected from CECS 323, 326, 328, 340, 423, 443, 449, 470, 474, 475, ENGR 350.

Master of Science in Computer Science

The Master of Science in Computer Science is offered by the Department of Computer Engineering and Computer Science, College of Engineering. Two options are offered:

1. Option in Computer Engineering
2. Option in Computer Science

The Option in Computer Engineering offers advanced study in the theory, analysis, design and applications of both computer hardware and software. The Option in Computer Science offers advanced study in modeling software systems, operating systems, compiler construction, and analysis of algorithms.

Admission Procedures

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 units (90 quarter units) attempted. The general Graduate Record Examination (GRE) is required. There is no separate department application, but applicants should submit a second set of transcripts to the department.

Option in Computer Engineering (code CECSMS02)

Prerequisites

1. A bachelor's degree in computer science, engineering, or other appropriate discipline from an accredited college or university, with a minimum grade point average (GPA) of 2.7 in the last 60 semester units attempted.
2. Credit in the following courses or their equivalents: CECS 274, 301, 325, 326, 346, 347, 360, 440, 443, and MATH 370A.
3. Students must consult with the program graduate advisor prior to enrolling in any course for the program.

Requirements

Students must complete a minimum of 30 graduate and approved upper-division course units including the following:

1. At least 21 units at the graduate level of instruction;
2. CECS 460A, CECS 460B, CECS 530, and either CECS 531 or CECS 546;
3. One course from the Computer Engineering Fundamental Areas;
4. One additional course from the MSCS Application Courses;
5. All students must complete either:
 - A. a comprehensive examination, or
 - B. a thesis with oral defense which requires a total of 6 units of CECS 697 or 698, of which at least 4 units must be CECS 698.

Option in Computer Science (code CECSMS01)

Prerequisites

1. A bachelor's degree in computer science, engineering, or other appropriate discipline from an accredited college or university, with a minimum grade point average (GPA) of 2.7 in the last 60 semester units attempted.
2. Credit in the following courses or their equivalents: CECS 228, 274, 323 (or 421), 325, 326, 328, 424, 440, 443, and MATH 380.
3. Students must consult with the program graduate advisor prior to enrolling in any course for the program.

Requirements

Students must complete a minimum of 30 graduate and approved upper-division course units including the following:

1. At least 21 units at the graduate level of instruction;
2. CECS 528;
3. One course from the Computer Science Fundamental Areas;
4. Two courses from the MSCS Application courses;
5. All students must complete either:
 - A. a comprehensive examination, or
 - B. a thesis with oral defense which requires a total of 6 units of CECS 697 or 698, of which at least 4 units must be CECS 698.

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 passed the University Writing Proficiency Examination;
5. and have their program of studies approved by the CECS department graduate advisor.

Courses (CECS)

Lower Division

101. The Digital Information Age (3)

Prerequisite: Category B2 General Education course. An introduction to commonplace digital information systems for non-majors. Information sources. Digital logic. Computer hardware and software. The Internet and the World Wide Web. (Lecture 3 hours.)

110. Introduction to the Internet (3)

Prerequisite: Some computer experience. Provides a general overview of computer systems, networking, and the Internet. World-Wide Web, email, telnet, ftp, newsgroups, finding information on the Internet, and basic Web page creation. Considers legal, ethical, privacy and security issues on the Internet. (Lecture 2 hours, laboratory 3 hours.)

126. Introduction to the UNIX Operating System (3)

Prerequisite: Consent of instructor. UNIX operating system's user interface. File and directory commands, editor commands, communication commands and other UNIX utilities. UNIX access permissions and security, I/O redirection, pipes, metacharacters, and full-screen editing with vi. Electronic communication, simple shell programming, and using the Xwindow System. (Lecture 2 hours, laboratory 3 hours.)

174. Programming and Problem Solving I (3)

Prerequisite: MATH 117 (or equivalent.) Introduction to the basic concepts of computer science and the fundamental techniques for solving problems using the C++ programming language. Structured problem solving, object-oriented programming, programming style. Applications to numerical and non-numerical problems. Not open to students with credit in CECS 175. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

200. Introduction to Web Design (3)

Prerequisite: Some computer experience. Introductory Web page design using modern tools. Development of Web pages from layout to posting on the Internet. Web security and ethics. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

201. Computer Logic Design I (3)

Prerequisite: MATH 117 (or equivalent). Basic topics in combinational and sequential switching circuits with applications to the design of digital devices. Laboratory projects with Small Scale Integration (SSI) implementations using Computer Aided Design (CAD). (Lecture 2 hours, lab 3 hours.) Letter grade only (A-F).

228. Discrete Structures with Computer Science Applications I (3)

Prerequisites: CECS 174 and MATH 122. The specification, development and analysis of algorithms. Sets, relations and functions. Logic and mathematical structures used in computer science. Introduction to combinatorics. Programming projects to exemplify these concepts. (Lecture 2 hours, laboratory/problem session 3 hours.) Letter grade only (A-F).

261. Computing with Java (3)

Prerequisite: CECS 174. Comparison of basic Java constructs to similar constructs in C++. Object-oriented programming in Java. Applets and graphical user interfaces. Mouse, key, and window events. Exception handling and files. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

271. Introduction to Numerical Methods (3)

Prerequisites: CECS 174 and MATH 123. An introduction to numerical methods and the FORTRAN programming language. Analysis of computational errors; iterative methods for finding roots and for solving systems of equations. Numerical techniques for evaluating integrals, determining derivatives, and solving ordinary differential equations. FORTRAN programming projects will be assigned. Not open to students with credit in CECS 342. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

274. Programming and Problem Solving II (3)

Prerequisite: CECS 174. Disciplined methods of design, coding and testing using the C++ programming language. Data abstraction, object-oriented design. Introduction to data structures (linked lists, stacks, queues and trees.) Recursion. Sorting and searching. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

277. Programming and Problem Solving III (3)

Prerequisite: CECS 274. 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 C++ programming language. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

281. GUI Programming (3)

Prerequisite: CECS 174. Introduction to programming in a graphical user interface (GUI) environment. Menus, dialog boxes, forms, textboxes, toolbars and other controls. Properties, methods and events of objects. Program control statements including if, case, while, loop, and do. System objects including the mouse, screen and printer. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

Upper Division

301. Computer Logic Design II (3)

Prerequisite: CECS 174. Pre- or Corequisite: CECS 311 or EE 331. Sequential logic, programmable logic design, basic Arithmetic Logic Unit (ALU) design and memory devices. Laboratory projects with Medium Scale to Very Large Scale Integration (MSI to VLSI)

implementations and Computer Aided Design (CAD). (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

310E. Computer-Based Learning Resources (3)

Prerequisite: Some Internet experience. Explore and learn to use the many existing web-based education tools that focus on teaching technology. Evaluation of resources for age appropriateness and gender preferences. Students will develop a web-based tool to teach a technical subject of their choice. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

311. Data Acquisition, Processing, and Display (3)

Prerequisites: CECS 201, EE 210 and 210L or PHYS 152. Hardware and software used to acquire, process, and display real-time signals. Transducers. Amplifiers. Buffers and isolators. Interrupt generators. Analog-to-digital and digital-analog converters. Display hardware. Software packages for electronics simulation and data acquisition. Sources of noise in digital systems. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

323. Database Fundamentals (3)

Prerequisites: CECS 228, 274, MATH 122, 222. 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. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

325. Computer Organization and Assembly Language Programming (3)

Prerequisites: CECS 201 and 274. Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming, macros and macro processing. Introduction to software systems, including assemblers, linkage editors and loaders. Programming assignments in assembly language. (Lecture 2 hours, lab 3 hours.) Letter grade only (A-F).

326. Operating Systems (4)

Prerequisites: CECS 277 and 325. 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 3 hours, laboratory 3 hours.) Letter grade only (A-F).

328. Discrete Structures with Computer Science Applications II (3)

Prerequisite: CECS 228. 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).

340. Discrete Event Systems Modeling and Simulation (3)

Prerequisites: CECS 201, 228 and 274. Modeling and simulation of discrete event systems specific to computer science and computer engineering including networks, queuing systems, digital logic, and computer architecture. The use of general purpose and specialized languages for these systems will be explored. Various methods for system input data (stochastic and deterministic) will be explored. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

346. Microprocessors and Controllers I (3)

Prerequisites: CECS 274 and 311. Introduction to microprocessor, micro controller and embedded system programming and design. Basic computer organization, representation of information and instruction, addressing techniques, input/output, assembly language programming. Introduction to software systems, including assemblers, linkage editors and loaders. Review of microprocessors and micro controllers with an in-depth study of the 8051 microprocessor. Design of microprocessor-based systems to solve practical problems. Laboratory projects using CAD implementations and hardware design tools for simulation of designs. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

347. Microprocessors and Controllers II (3)

Prerequisites: CECS 301 and 346. 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, 325, MATH 123 or 222. 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).

401E. Programming Robots – for Teachers and Parents (3)

Prerequisite: Some programming experience. Learn how to inspire interest in engineering and computer science among children ages 9 through 16. Using robotic kits, gain hands-on experience in problem solving and computer programming while constructing and programming unique robot inventions. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*405. Special Topics in Computer Science (3)

Prerequisite: Senior standing in computer science major. Selected topics from recent advances in computer science and technology. Course content will vary from year to year. (Lecture-problems 3 hours.) Repeatable to a maximum of 6 units with different topics. Letter grade only (A-F).

*406. Special Topics in Computer Science (3)

Prerequisite: Senior standing in a computer science program. Each offering is based on an area in computer science and technology in which recent advances have been made. Specific topic will be recorded on student's transcript. (Lecture-problems 2 hours, laboratory 3 hours.) Repeatable to a maximum of 6 units with different topics. Letter grade only (A-F).

*410E. 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).

*419. Theory of Computation (3)

Prerequisite: CECS 328. Finite automata and regular expressions. Pushdown automata and context-free languages. Turing machines and computability. Computational complexity. (Lecture-problems 3 hours.) Letter grade only (A-F).

*423. Database Applications (3)

Prerequisite: CECS 323 (or 421). Preparation for work on commercial database systems. Advanced modeling and analysis, data definition, constraints, retrieval, manipulation, security and usability. Commercial development tools, distributed/multi-tier environments and integration of databases with intranets and internets. Projects may include cooperation with students from other departments. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*424. Organization of Programming Languages (4)

Prerequisites: CECS 326 and 328. Comparison of programming languages (C, C++, Ada, Java, etc.) in their design and structure regarding features such as data types, control structures and run-time considerations. Includes computer projects illustrating some of these concepts. (Lecture 3 hours, laboratory 3 hours.) Letter grade only (A-F).

*426. Topics in Operating Systems (3)

Prerequisite: CECS 326. Advanced operating system analysis and design. Topics of current interest. Project implementation (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*428. Analysis of Algorithms (3)

Prerequisite: CECS 328. Applications of standard combinatorial techniques to applied programming problems. Rigorous analysis of the correctness and 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).

440. Computer Architecture (3)

Prerequisites: CECS 325 and 340. Review of logic design. Register transfer and micro-operations. Basic computer organization. Central processor organization. Microprogram control organization. Arithmetic processor design. Arithmetic algorithms. Input-output organization. Memory organization. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

443. Software Engineering (3)

Prerequisite: CECS 326. Software life cycle. Functional decomposition, data flow and object-oriented development. Reusability and portability. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*444. Compiler Construction (4)

Prerequisites: CECS 325 and 328. Syntax directed compiler study. Organization of a compiler and overall design: parsing, semantic analysis, optimization and code generation. (Lecture 3 hours, laboratory 3 hours.) Letter grade only (A-F).

*446. Microprocessor Systems Design (3)

Corequisites: CECS 347 and 440. Computer system design using microprocessors including the use of multiple CPUs and RISC processors. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

447. Microprocessors and Controllers III (3)

Prerequisite: CECS 347. Embedded system applications and techniques. Real-time multi-tasking systems, schedulers, kernels, and operating systems for embedded processors. Advanced I/O technologies include CAM, I²C, Ethernet. Embedded Internet applications. Polling versus interrupt handling. Laboratory implementation of embedded designs and hardware-assisted debugging. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*448. User Interface Design (3)

Prerequisites: CECS 323 (or 421), and any one of CECS 471, 475, 481. 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: MATH 247, CECS 261 and 274. Basic software and hardware of 2-D computer graphics. Applications. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*451. Artificial Intelligence (3)

Prerequisites: CECS 228 and 274, MATH 380 (or EE 380). Introduction to the principles and programming methods of artificial intelligence. Topics include symbol manipulation, knowledge representation, searching, expert systems and logic programming. Project implementation in LISP or Prolog. Not open to students with credit in CECS 420 or 450. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

460A. System on Chip Design I (3)

Prerequisite: CECS 360 or 440. A complete System on a Chip (SOC) design flow beginning with a design specification and ending with a working SOC. Creation of RTL level modules designed for reuse, integration of Intellectual Property (IP) for both RTL level and physical level IP, IC verification, and the creation of self-checking test benches for SOC designs. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*460B. System on Chip Design II (3)

Prerequisite: CECS 460A. System on a Chip (SOC) design applications. A variety of SOC designs will be built as class project which involve both the hardware and software aspect of a SOC along with hardware/software integration problems. Design reviews, design specification and team design implementation will be stressed along with project planning and tracking mechanisms for system level design problems. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*470. World-Wide Web Development (3)

Prerequisites: CECS 277 and 323 (or 421). Introduction to commercial practice in World-Wide Web site development. Web server and client software and the underlying networking technologies and protocols. Page and site design and programming using contemporary development tools and languages. Typography, graphics, database integration, usability, ethics and future directions. Projects will include site development for an actual client and may include cooperation with students from other departments. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*471. Internet Applications Using Java (3)

Prerequisites: CECS 261 and 277. Threads, images, and animation. User interface component libraries. Streams, readers and writers. Client-server applications. Java beans. Internationalization. Introduction to remote method invocation, Java database connectivity, and multimedia applications. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*472. Computer Network Programming (3)

Prerequisites: CECS 326 and 328. Fundamentals of client-server programming. Concepts of computer network programming including RPC and CORBA. Introduction to the principles of TCP and routing. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*473. Enterprise Web Applications (3)

Prerequisites: CECS 323 (or 421), 470, and any one of CECS 471, 475, 481. Web commerce, high-availability Web sites, and information architecture. Advanced client side and server side scripting, advanced searching and indexing, application servers. Legal and business aspects. Projects may include cooperation with students from other departments. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*474. Computer Network Interoperability (3)

Prerequisite: CECS 326. An 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. Object-Oriented Programming and C++ (3)

Prerequisite: CECS 277. An overview of object-oriented programming, data abstraction, and the C++ language. Classes, constructors, destructors, function and operator overloading, inheritance, polymorphism, input/output, standard template library (STL), templates, Visual C++, Microsoft Foundation Class (MFC), and object-oriented design. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

*476. System and Network Administration (3)

Prerequisites: CECS 326 and 328. 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).

*481. Event Driven Programming (3)

Prerequisite: CECS 326. A rigorous introduction to Graphical User Interface (GUI) programming as provided in a number of popular software development products. Topics include Windows API (Application Programming Interface) using C and C++, Visual Basic and other development tools. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

496. Computer Science Problem Solving (1)

Prerequisites: CECS 274 and consent of instructor. A study of problem solving in Computer Science. Discussion of the theory necessary to solve computer science problems as well as the solutions to the problems. Problems studied will involve applications of graph theory, data structures, recursion, and algorithms. The aim of the course is to enhance the student's problem solving ability. (Lecture 1 hour.) Course may be repeated in different semesters to a maximum of 6 units. 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 for a total of 6 units with written permission of the Department Chair.

Graduate Level

521./621. Database Architecture (3)

Prerequisites: CECS 328 and 323 (or 421). (Master's students register in CECS 521 or 621; Ph.D. students register in CECS 621.) Relational database design theory—a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization. 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 and 471. (Master's students register in CECS 524 or 624; Ph.D. students register in CECS 624.) Intensive study of languages of current interest which support object-oriented, client-server, and multimedia applications (e.g. JAVA). 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 326. (Master's students register in CECS 526 or 626; Ph.D. students register in CECS 626.) Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlocks, mutual exclusion, virtual memory, resource management and scheduling. Additional projects required for CECS 626. (Lecture-problems 3 hours.) Letter grade only (A-F).

528./628. Advanced Analysis of Algorithms (3)

Prerequisite: CECS 328 and MATH 380. (Master's students register in CECS 528 or 628; Ph.D. students register in CECS 628.) 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. Additional projects required for CECS 628. (Lecture-problems 3 hours.) Letter grade only (A-F).

530./630. Advanced Computer Architecture I (3)

Prerequisite: CECS 440. (Master's students register in CECS 530 or 630; Ph.D. students register in CECS 630.) 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. Additional projects required for CECS 630. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

531./631. Advanced Computer Architecture II (3)

Prerequisite: CECS 530. (Master's students register in CECS 531 or 631; Ph.D. students register in CECS 631.) 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. Additional projects required for CECS 631. (Lecture-problems 3 hours.) Letter grade only (A-F).

543./643. Advanced Software Engineering (3)

Prerequisite: CECS 443. (Master's students register in CECS 543 or 643; Ph.D. students register in CECS 643.) Study of software engineering as a broad, problem-solving discipline. Includes structured programming and software project management. Additional projects required for CECS 643. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

544./644. Software Testing and Verification (3)

Prerequisite: CECS 543. 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. Additional projects required for CECS 644. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

545./645. Software Architecture (3)

Prerequisite: CECS 543. Topics include 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 architectures, and heterogeneous architecture. Component-based design patterns and some case studies. Additional projects required for CECS 645. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

546./646. Fault Tolerant Computing Systems (3)

Prerequisite: CECS 530. (Master's students register in CECS 546 or 646; Ph.D. students register in CECS 646.) 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. Additional projects required for CECS 646. (Lecture-problems 3 hours.) Letter grade only (A-F).

549./649. Advanced Computer Graphics (3)

Prerequisite: CECS 449. (Master's students register in CECS 549 or 649; Ph.D. students register in CECS 649.) Three-dimensional representations, transformations and viewing. Color models and modeling methods. Hidden-line and hidden-surface removal. Lighting and shading. Visual realism. Topics of current interest. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

551./651. Advanced Artificial Intelligence (3)

Prerequisite: CECS 451. (Master's students register in CECS 551 or 651; Ph.D. students register in CECS 651.) 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. Additional projects required for CECS 651. (Lecture-problems 3 hours.) Letter grade only (A-F).

552./652. Computer Simulation and Modeling (3)

Prerequisites: EE 380 (or MATH 380) and CECS 326. (Master's students register in CECS 552 or 652; Ph.D. students register in CECS 652.) Studies of general purpose and special simulation software. Model verification including graphical models Applications in various areas. Additional projects required for CECS 652. (Lecture-problems 3 hours.) Letter grade only (A-F).

553./653. Machine Vision (3)

Prerequisite: Graduate standing in engineering or computer science. (Master's students register in CECS 553 or 653; Ph.D. students register in CECS 653.) 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. Additional projects required for CECS 653. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

570./670. Concurrent Parallel Programming (3)

Prerequisite: CECS 428 or 440. (Master's students register in CECS 570 or 670; Ph.D. students register in CECS 670.) An introduction to concurrent and parallel programming for multiprocessing as well as 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. Additional projects required for CECS 670. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

572./672. Advanced Computer Networking (3)

Prerequisite: CECS 474. (Master's students register in CECS 572 or 672; Ph.D. students register in CECS 672.) Advanced concepts in computer network theory and practice. Computer network design and standards for local area networks (LANs) and wide area networks (WANs). Computer network configuration and performance issues. Additional projects required for CECS 672. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

575./675. Object-Oriented Analysis and Design (3)

Prerequisite: CECS 475 and either CECS 443 or 543. (Master's students register in CECS 575 or 675; Ph.D. students register in CECS 675.) An object-oriented approach to software development based on modeling objects from the real world and then using the model to build a language-independent design organized around those objects. Object-oriented methodology from problem statement through analysis, system design, and object design. Implementation of object-oriented designs in various target environments. Case studies. Additional projects required for CECS 675. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

590./690. Special Topics in Computer Science (3)

Prerequisites: Graduate standing and consent of instructor. (Master's students register in CECS 590 or 690; Ph.D. students register in CECS 690.) Each offering is based on an area in computer science and technology in which recent advances have been made. Additional projects required for CECS 690. (Lecture-problems 3 hours.) Repeatable to a maximum of 6 units with consent of department. Letter grade only (A-F).

621./521. Database Architecture (3)

Prerequisites: CECS 328 and 323 (or 421). (Master's students register in CECS 521 or 621; Ph.D. students register in CECS 621.) Relational database design theory—a rigorous approach. Security, recovery, transaction management, distributed databases and query optimization. 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 and 471. (Master's students register in CECS 524 or 624; Ph.D. students register in CECS 624.) Intensive study of languages of current interest which support object-oriented, client-server, and multimedia applications (e.g. JAVA). 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 326. (Master's students register in CECS 526 or 626; Ph.D. students register in CECS 626.) Theoretical foundations of concepts applied in the design of operating systems. Control of concurrent processes, deadlocks, mutual exclusion, virtual memory, resource management and scheduling. Additional projects required for CECS 626. (Lecture-problems 3 hours.) Letter grade only (A-F).

628./528. Advanced Analysis of Algorithms (3)

Prerequisite: CECS 328 and MATH 380. (Master's students register in CECS 528 or 628; Ph.D. students register in CECS 628.) 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. Additional projects required for CECS 628. (Lecture-problems 3 hours.) Letter grade only (A-F).

630./530. Advanced Computer Architecture I (3)

Prerequisite: CECS 440. (Master's students register in CECS 530 or 630; Ph.D. students register in CECS 630.) 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. Additional projects required for CECS 630. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

631./531. Advanced Computer Architecture II (3)

Prerequisite: CECS 530. (Master's students register in CECS 531 or 631; Ph.D. students register in CECS 631.) 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. Additional projects required for CECS 631. (Lecture-problems 3 hours.) Letter grade only (A-F).

643./543. Advanced Software Engineering (3)

Prerequisite: CECS 443. (Master's students register in CECS 543 or 643; Ph.D. students register in CECS 643.) Study of software

engineering as a broad, problem-solving discipline. Includes structured programming and software project management. Additional projects required for CECS 643. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

644./544. Software Testing and Verification (3)

Prerequisite: CECS 543. 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. Additional projects required for CECS 644. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

645./545. Software Architecture (3)

Prerequisite: CECS 543. Topics include 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 architectures, and heterogeneous architecture. Component-based design patterns and some case studies. Additional projects required for CECS 645. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

646./546. Fault Tolerant Computing Systems (3)

Prerequisite: CECS 530. (Master's students register in CECS 546 or 646; Ph.D. students register in CECS 646.) 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. Additional projects required for CECS 646. (Lecture-problems 3 hours.) Letter grade only (A-F).

649./549. Advanced Computer Graphics (3)

Prerequisite: CECS 449. (Master's students register in CECS 549 or 649; Ph.D. students register in CECS 649.) Three-dimensional representations, transformations and viewing. Color models and modeling methods. Hidden-line and hidden-surface removal. Lighting and shading. Visual realism. Topics of current interest. Additional projects required for CECS 649. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

650./750. Pattern Recognition Using Artificial Intelligence (3)

(Master's students register in CECS 650; Ph.D. students register in CECS 750.) General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rule-based systems and neural networks. 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. (Master's students register in CECS 551 or 651; Ph.D. students register in CECS 651.) 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. Additional projects required for CECS 651. (Lecture-problems 3 hours.) Letter grade only (A-F).

652./552. Computer Simulation and Modeling (3)

Prerequisites: EE 380 (or MATH 380) and CECS 326. (Master's students register in CECS 552 or 652; Ph.D. students register in CECS 652.) Studies of general purpose and special simulation software. Model verification including graphical models Applications in various areas. Additional projects required for CECS 652. (Lecture-problems 3 hours.) Letter grade only (A-F).

653./553. Machine Vision (3)

Prerequisite: Graduate standing in engineering or computer science. (Master's students register in CECS 553 or 653; Ph.D. students register in CECS 653.) 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. 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 428 or 440. (Master's students register in CECS 570 or 670; Ph.D. students register in CECS 670.) An introduction to concurrent and parallel programming for multiprocessing as well as 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. 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. (Master's students register in CECS 572 or 672; Ph.D. students register in CECS 672.) Advanced concepts in computer network theory and practice. Computer network design and standards for local area networks (LANs) and wide area networks (WANs). Computer network configuration and performance issues. Additional projects required for CECS 672. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

673./773. Topics in Distributed Computer Systems (3)

Prerequisite: CECS 572 or 672. (Master's students register in CECS 673; Ph.D. students register in CECS 773.) 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. Additional projects required for Ph.D. students. (Lecture-problems 3 hours.) Letter grade only (A-F).

675./575. Object-Oriented Analysis and Design (3)

Prerequisite: CECS 475 and either CECS 443 or 543. (Master's students register in CECS 575 or 675; Ph.D. students register in CECS 675.) An object-oriented approach to software development based on modeling objects from the real world and then using the model to build a language-independent design organized around those objects. Object-oriented methodology from problem statement through analysis, system design, and object design. Implementation of object-oriented designs in various target environments. Case studies. Additional projects required for CECS 675. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

690./590. Special Topics in Computer Science (3)

Prerequisites: Graduate standing and consent of instructor. (Master's students register in CECS 590 or 690; Ph.D. students register in CECS 690.) Each offering is based on an area in computer science and technology in which recent advances have been made. Additional projects required for CECS 690. (Lecture-problems 3 hours.) Repeatable to a maximum of 6 units with consent of department. Letter grade only (A-F).

694. Seminar in Computer Science (3)

Prerequisite: Six 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 intensive analysis. (Independent Study.) Letter grade only (A-F).

698. Thesis or Industrial Project (2-6)

Prerequisite: Advancement to Candidacy. Planning, preparation, and completion of a 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 department's Graduate Advisor and submission of an Agreement for Independent Study form each semester of enrollment. May be repeated to a total of 6 units.

750./650. Pattern Recognition using Artificial Intelligence (3)
(Master's students register in CECS 650; Ph.D. students register in CECS 750.) General concepts of pattern recognition and trainable classifiers, decision theory, supervised learning, non-parametric techniques, rule-based systems and neural networks. Additional projects required for Ph.D. students. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

773./673. Topics in Distributed Computer Systems (3)

Prerequisite: CECS 572 or 672. (Master's students register in CECS 673; Ph.D. students register in CECS 773.) 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. Additional projects required for Ph.D. students. (Lecture-problems 3 hours.) Letter grade only (A-F).

COMPARATIVE WORLD LITERATURE AND CLASSICS

College of Liberal Arts

Department Chair

J. Charles Jernigan

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Administrative Support Coordinator

Lisa Behrendt

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for an appointment with the advisor.

Comparative World Literature is the study of foreign literatures in translation and the relationships among those literatures and between literature and other fields such as art, music, history, philosophy, and theatre. At CSULB, Comparative World Literature also offers a strong focus in cultural studies and mythology as bases for understanding literature and for the ways we see ourselves in a multicultural environment. Suggested preparation: course work in world literature, history, English composition, and foreign language.

Classics includes the studies of ancient Greek, Latin, and classical literature, archaeology, mythology and civilizations, and their influence on later eras. Suggested preparation: course work in Latin, Greek, and classical history, art and literature.

Bachelor of Arts in Comparative Literature (code C/LTBA01) (120 units)

The Bachelor of Arts in Comparative Literature consists of the Core of 24 units and one of the three emphases that follow.

The Core

24 units, required of every major, distributed as follows:

1. C/LT 330A AND 330B.
2. *Genre*. At least one of the following: C/LT 346, 405, 440, 4221*, 4511*, 453, CLSC 4211*.
3. *Author*. At least one of the following: C/LT 430, 449.
4. *Non-Western or Mythology*. At least one of the following: C/LT 342*, 350, 402, 403, 440, 445, 452.
5. *Theory*. At least one of the following: C/LT 361, 461.
6. *Literary Movement or Comparative Study*. At least one of the following: C/LT 310I*, 312I*, 349, 404, 410, 448.
7. *European Period*. At least one of the following: C/LT 431, 432, 437, 438.

Note: C/LT 440 may be used in both groups 2 and 4 with appropriate different topics.

Courses denoted by an asterisk (*) may be used to satisfy Core requirements with the approval of the course instructor and completion of supplementary work.

Emphasis I: Language and Literature

The traditional undergraduate major in comparative literature, designed to prepare the student for graduate study in comparative literature or related fields.

Requirements

1. *The 24 Unit Core*
2. *The First Concentration*. 12 upper division units in one foreign language, six of which must be in literature classes. If a language is chosen which offers a limited number of courses, some lower division units will suffice, but they must be, as a minimum, the equivalent of four semesters of college study.

3. *The Second Concentration*. 12 upper division units in any one of the following areas: American Indian Studies, Art History, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, English Literature, English-Option in Creative Writing, film studies, History, music history, Philosophy, Religious Studies, Theatre Arts, Women's Studies, or a second foreign language.

If the concentration is in American Indian Studies, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, English-Option in Creative Writing, Theatre Arts, Women's Studies, or a second foreign language area, 6 of the units must be in literature courses. If the concentration is in Theatre Arts, Women's Studies or film studies, appropriate courses may be chosen from any department offering such courses, including Comparative World Literature and Classics.

Emphasis II: World Literature

This emphasis offers a broad background in world literature in translation with a strong concentration in one specific related field. It is also appropriate for the student who elects the comparative literature teaching option of the English Single Subject Credential program.

Requirements

1. *The 24 Unit Core*.
2. *The Concentration*. 18 upper division units in one of the following areas: American Indian Studies, Art History, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, English Literature, English-Option in Creative Writing, English-Option in English Education (Comparative Literature Emphasis), film studies, History, music history, Philosophy, Religious Studies, Theatre Arts, Women's Studies, or a single foreign language.

If the concentration is in American Indian Studies, Asian Studies, Asian American Studies, Black Studies, Chicano and Latino Studies, English-Option in Creative Writing, Theatre Arts, Women's Studies, or a foreign language area, at least 9 of the units must be in literature courses. If the concentration is in an ethnic studies area, Women's Studies, Theatre Arts or film studies, appropriate courses may be chosen from any department offering such courses, including Comparative World Literature and Classics. Students taking the English-Option in English Education must take the 35 unit English Education core and must consult with an English education advisor as well as a Comparative World Literature advisor.

Foreign Language Requirement. Reading proficiency in a foreign language is required. Proficiency may be certified by examination or by successful completion of four semesters of college study of the foreign language, or equivalent. Consult a department advisor.

Emphasis III: Cultural Studies

Cultural Studies is the interdisciplinary and multicultural study of literary and other forms of cultural expression analyzed within their social and historical contexts. This emphasis is designed for students wishing to concentrate in cultural studies firmly grounded in literary study. It provides for an interdisciplinary pattern of courses in cultural studies drawn from various disciplines with the approval of a faculty committee.

Requirements

1. *The 24 Unit Core*.
2. *The Cultural Studies Concentration*. 18 upper division units in appropriate cultural studies courses, approved by a faculty committee and drawn from the following departments or areas: American Indian Studies, Anthropology, Art History, Asian and Asian American Studies, Black Studies, Chicano and Latino Studies, Classics, Dance, English, Film and Electronic Arts, History, Romance, German, Russian Languages and Literatures, Women's Studies, or other appropriate departments and areas of study. The faculty committee shall consist of the Chair of the Department of Comparative World Literature and Classics and one additional full time faculty member in Comparative World Literature. Students are strongly encouraged to select a faculty committee and have their pattern of course work approved by the beginning of the junior year, but it must be approved by the beginning of the senior year.

Foreign Language Requirement: Basic reading knowledge of one foreign language is required. It may be certified by examination or by successful completion of two semesters of college study, or the equivalent. Consult a department advisor.

Minor in Comparative Literature (code C/LTUM01)

In addition to the bachelor of arts degree, the Department offers a minor in comparative literature. The minor provides a flexible program for the student who is majoring in another discipline, but who is interested in comparative literature either for professional advantages or for intellectual enrichment.

Requirements

A minimum of 18 units in comparative literature, of which at least 12 are upper division excluding C/LT 499.

Comparative Literature Courses (C/LT)

Lower Division

100. World Literature (3)

Corequisite/prerequisite: Any G.E. Foundation course. Readings in translation from masterpieces of world literature with emphasis on the technique and form of literary art as developed in various cultures.

101. Introduction to Comparative Literature (3)

Corequisite/prerequisite: Any G.E. Foundation course. An introduction to the basics of literary interpretation and comparative literature. Strongly recommended for majors in Comparative Literature.

103. Introduction to Comparative Asian Literature and Culture (3)

Prerequisite/Corequisite: Any G.E. Foundation course. Introduction to two major Asian cultures—India and China—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 the cultures of the Middle East and North Africa through an exploration of their literatures, with focus on some of the major figures of the twentieth and twenty-first centuries, such as Naguib Mahfouz, Ghassan Kanafani, Edward Said, and others.

124. Introduction to World Theatre and Drama (3)

Corequisite/prerequisite: Any G.E. 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.

161. Reading the World (3)

Prerequisite/Corequisite: Completion or concurrent enrollment in ENGL 100 or equivalent. An introduction to contemporary theories of reading and interpretation in the humanities. Lectures and classroom discussion will examine various and diverse forms of human expression and critical understanding from around the world and across the disciplines while developing and refining a broad repertoire of reading tools and practices.

232. Folklore and Mythology (3)

Prerequisite: Completion of GE Foundation requirements. Introduction to the study of mythology and folklore in a global context, with an emphasis on their application in literature.

250. European Literature and the Other Arts I (3)

Prerequisites: Completion of GE Foundation requirements. Investigation of the interrelationships between the arts. Analysis of literary, fine art and music materials from ancient periods through the Middle Ages in regard to movements, techniques, philosophies and formal organization to achieve artistic expression.

251. European Literature and the Other Arts II (3)

Prerequisite: Completion of GE Foundation requirements. Interrelationships among the arts through analysis of literary, fine art, and music materials in the western world from the Renaissance to the present. Movements, techniques, philosophies and the formal organization necessary to achieve artistic expression will be examined.

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.

310I. Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major events and ideas in the society and culture of ancient Greece with an emphasis on literature, the arts, and the historical forces at work. Topics include the foundations of Greek culture, Minoan civilization, Homer and the Trojan War, mythology and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponnesian War, Hellenistic culture and the contributions of the Greeks to the modern world. Same course as HIST 310I.

312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major events and ideas in the society and culture of ancient Rome with an emphasis on literature, the arts, and the historical forces at work. 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 HIST 312I.

320I. Comic Spirit (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An investigation of comedy as a literary genre and of the manifestation of the comic spirit in related art forms such as music, art, and film. Examination is given to the history of comedy as well as to theories of the causes and effects of laughter.

324I. Theatre Today (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. This course 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 324I. Letter grade only (A-F).

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)

Prerequisites: Completion of 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.

336. Introduction to Southeast Asian Literatures and Cultures (3)

Prerequisites: Completion of GE Foundation requirements. A survey of the traditional and modern literatures and cultures of Southeast Asia with a focus on the modern period.

342. The Bible as Literature (3)

Prerequisite: Completion of GE Foundation requirements. Reading of representative Biblical selections interpreted from a literary standpoint.

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. 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 will be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of nine units with different topics.

350. Global Literature in American Culture (3)

Prerequisites: Completion of the GE Foundation requirement, one or more Explorations courses, and upper-division standing. A comparative and thematic study of transnational literature of the emerging global culture as represented in various ethnic groups in modern America. The literature and culture of at least three distinct American ethnic groups will be examined in relation to contemporary trans-national themes and the literatures of the countries of origin.

361. Masterpieces of Literary Criticism (3)

Representative selections of literary theory from Plato to the present. Readings from each theory will be supplemented by applications to a specific literary text. Course will provide students with a broad historical background and the critical and practical tools to analyze a literary text.

402./502. Studies in 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. Topics to be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

403./503. Studies in 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. Topics to be announced in the *Schedule of Classes*. May be repeated with different topics for a maximum of nine units.

404./504. Women in World Literature (3)

Prerequisite: One course in literature or consent of instructor. Study of the role of women in world literature. Specific movement, area, or theme will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

405./505. The Modern Confessional Novel (3)

Prerequisite: One course in literature or consent of instructor. A comparative analysis of the thematic and structural characteris-

tics of the confessional novel in the 19th and 20th centuries. Representative novels from Europe, Asia and Latin America are examined.

410. Literature and Music (3)

Prerequisites: ENGL 100 and upper division status. An examination of the relationship between music and literature in the 19th and 20th centuries with emphasis placed on representative literary works and musical compositions that show mutual influences and common features and structures.

412I. Art and Literature (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary study of the dominant movements in art and literature during the 19th and 20th centuries, from Realism through Post-modernism. The course emphasizes comparative analysis of the styles, methods, and aesthetic principles characteristic of the various movements, focusing on the works of major artists, writers and theorists, and examines the social and historical context in which the movements developed.

414I. Medieval World (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major themes in medieval society and culture with emphasis on literature, the arts, and the historical forces at work. Topics will include the Roman heritage of the middle ages, pre/non-Christian culture, the so-called "dark ages," Romanesque and Gothic worlds, crusades and pilgrimages, commerce and cathedrals, and late medieval problems. Same course as HIST 414I.

415I. Ethnic Literature and Culture in America (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course will introduce the comparative, interdisciplinary study of multicultural literature along with issues of racism and ethnic discrimination. Ethnic groups to be discussed: European-American, Native American, African-American, Latino/ Latina, Asian-American, Southeast Asian-American, Middle-Eastern American. Recurrent themes in literature will be situated in their historical and sociopolitical context using printed and media materials. Analytical essays on various theories of race and ethnicity will be presented using supporting multimedia.

422I. Renaissance Theatre and Drama (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An 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, including works by Machiavelli, Tasso, Tirso de Molina, Lope de Vega, Calderon, and Shakespeare. Texts are treated both as literature and as theatre.

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.

431./531. Medieval Literature (3)

Prerequisite: One course in literature or consent of instructor. Representative selections, in translation, from writings of the medieval period, reflecting dominant ideas of the time.

432./532. Continental Renaissance Literature (3)

Prerequisite: One course in literature or consent of instructor. A comparative study of the major works of the chief non-dramatic authors of Renaissance Europe, including all or some of the following: 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.

437./537. Romantic Literature (3)

Prerequisites: ENGL 100 or its equivalent and one course in literature. Representative selections, in translation, from European

writings of the Romantic period with an emphasis on a comparative study of works from Germany and France from about 1785 to 1870. Letter grade only (A-F).

438./538. 20th Century European Literature (3)

Prerequisite: One course in literature or consent of instructor. Comparative study of continental European literature, in translation from 1900 to the present. Novelists studied include Kafka, Gide, Proust, Hesse, Moravia, Kazantzakis, and Mann; dramatists include Pirandello, Chekhov, Beckett, Sartre, and Camus. Movements include realism, naturalism, the development of the psychological novel, existentialism, and the theatre of the absurd.

440./540. Latin American Literary Studies (3)

Prerequisite: One course in literature or consent of instructor. A comparative study of major literary genres in Latin American literature in relation to the principal periods and movements of the Western literary tradition. The genres for the semester will be announced in the *Schedule of Classes*. May be repeated with different topics up to nine units.

445./545. American Folklore Studies (3)

Prerequisite: One course in literature or consent of instructor. Special topics in American folklore. Topics are chosen to provide a bridge between literary, aesthetic and specialized folkloric studies of American culture. Special attention will be paid to European and Third World contributions to American folklore. Topics to be announced in the *Schedule of Classes*. May be repeated with different topics up to nine units.

448./548. 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 to be announced in the *Schedule of Classes*. May be repeated for a maximum of nine units with different topics.

449./549. Critical Studies in Major Continental Writers (3)

Prerequisite: One course in literature or consent of instructor. Intensive and comparative study of one to three major continental authors. Authors to be studied will be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of nine units with different topics.

451I. The Novel and the Motion Picture in Contemporary Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Interdisciplinary study of two genres, with particular focus on novels made into films and on the aesthetic distinction of both forms as major genres in the 20th and 21st centuries.

452./552. Studies in 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, to be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of nine units.

453./553. Fairy Tales (3)

Prerequisite: One course in literature or consent of instructor. An in-depth study of the fairy tale as a unique literary genre and art form. Class will investigate various theories as applied to the tales and identify psychological, religious, cultural, and alchemical patterns and symbols that reappear in fairy tales and manifest man's early realization of his identity and of the creative process.

461./561. Topics in Contemporary Literary Criticism (3)

Prerequisite: Two upper division literature courses or consent of instructor. An in-depth study of a particular critic or movement in contemporary literary theory. May be repeated for credit to a maximum of nine units with different topics.

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. Course may be repeated for a maximum of 6 units. Credit/No Credit grading only.

495. Genre (1-3)

Prerequisite: Consent of instructor. Production of the 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. Course may be repeated for 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 for a maximum of six 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.

502./402. Studies in 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. Topics to be announced in the schedule of classes. May be repeated for a maximum of six units with different topics.

503./403. Studies in 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. Topics to be announced in the *Schedule of Classes*. May be repeated with different topics, for a maximum of nine units.

504./404. Women in World Literature (3)

Prerequisite: One course in literature or consent of instructor. Study of the role of women in world literature. Specific movement, area, or theme will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

505./405. The Modern Confessional Novel (3)

Prerequisite: One course in literature or consent of instructor. A comparative analysis of the thematic and structural characteristics of the confessional novel in the 19th and 20th centuries. Representative novels from Europe, Asia and Latin America are examined.

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.

531./431. Medieval Literature (3)

Prerequisite: One course in literature or consent of instructor. Representative selections, in translation, from writings of the medieval period, reflecting dominant ideas of the time.

532./432. Continental Renaissance Literature (3)

Prerequisite: One course in literature or consent of instructor. A comparative study of the major works of the chief non-dramatic authors of Renaissance Europe, including all or some of the following: 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.

537./437. Romantic Literature (3)

Prerequisite: One course in literature. Representative selections, in translation, from European writings of the Romantic period with an emphasis on a comparative study of works from Germany and France from about 1785 to 1870. Letter grade only (A-F).

538./438. 20th Century European Literature (3)

Prerequisite: One course in literature or consent of instructor. Comparative study of continental European literature, in translation from 1900 to the present. Novelists studied include Kafka, Gide, Proust, Hesse, Moravia, Kazantzakis, and Mann; dramatists include Pirandello, Chekhov, Beckett, Sartre, and Camus. Movements include realism, naturalism, the development of the psychological novel, existentialism, and the theatre of the absurd.

540./440. Latin American Literary Studies (3)

Prerequisite: One course in literature or consent of instructor. A comparative study of major literary genres in Latin American literature in relation to the principal periods and movements of the Western literary tradition. The genres for the semester will be announced in the *Schedule of Classes*. May be repeated with different topics up to nine units.

545./445. American Folklore Studies (3)

Prerequisite: One course in literature or consent of instructor. Special topics in American folklore. 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. Topics to be announced in the *Schedule of Classes*. May be repeated with different topics up to nine units.

548./448. 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 to be announced in the *Schedule of Classes*. May be repeated for a maximum of nine units with different topics.

549./449. Critical Studies in Major Continental Writers (3)

Prerequisite: One course in literature or consent of instructor. Intensive and comparative study of one to three major continental authors. Authors to be studied will be announced in the *Schedule of Classes*. May be repeated for maximum of nine units with different topics.

550. Topics in Comparative Literature (3)

Prerequisite: C/LT 501 or consent of instructor. Special studies of movements, figures and relationships in world literature; or between world literature and other disciplines. Topics to be announced in the *Schedule of Classes*. May be repeated to a maximum of nine units with different topics.

552./452. Studies in 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, to be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of nine units.

553./453. Fairy Tales (3)

Prerequisite: One course in literature or consent of instructor. An in-depth study of the fairy tale as a unique literary genre and art form. Class will investigate various theories as applied to the tales and identify psychological, religious, cultural, and alchemical patterns and symbols that reappear in fairy tales and manifest man's early realization of his identity and of the creative process.

561./461. Topics in Contemporary Literary Criticism (3)

Prerequisite: Two upper division literature courses or consent of instructor. An in-depth study of a particular critic or movement in contemporary literary theory. May be repeated for credit to a maximum of nine units with different topics.

CLASSICS

Classics includes the study of the languages, the literatures and the civilizations of the ancient Greeks and Romans and the peoples with whom they had contact. The Department of Comparative World Literature and 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.

Classics, along with rhetoric, made up undergraduate education in Europe and the Americas from the Renaissance to the late nineteenth century. Today classical studies remains a practical liberal arts major for developing critical thinking skills, for understanding the core of Western civilization, for developing facility with English, and for cultivating aesthetic and moral sensitivity. Classics majors are often successful in law, government service, business, secondary and elementary education, library science and medicine. Students interested in graduate school in either Classics or Classical Archaeology should consult with 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 Aegean 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.

Bachelor of Arts in Classics (120 units)

Option in Roman Civilization (code CLSCBA01)

Requirements

41-43 units with a minimum of 21 upper division units (excluding LAT 321)

1. *Elementary Latin* - 6-8 units selected from the following: LAT 101A and 101B (8) or LAT 321 (6)
The requirement of this category may be met by high school equivalents, but total units must still equal 41.
2. *Upper Division Latin* - 12 units selected from the following: LAT 301A, 301B, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410A, 410B, 410C, 490
3. *Classics Courses* - 15 units selected from the following: CLSC 124, 135, 191, 310I, 410I, 421I, 490, C/LT 312I*
* The Department strongly recommends that this course be taken in Italy during the winter session.
4. *Courses in Antiquity* - A minimum of 8 units selected from the following: GK 101A, 101B; AH 408, 417; COMM 300; C/LT 452**; ENGL 431; HIST 131, 314, 318; PHIL 490**; POSC 301; R/ST 471I
**with topic appropriate to ancient Roman studies and approval of advisor
The Department additionally recommends C/LT 232.

Option in Greek Civilization (code CLSCBA02)

Requirements

43 total units with a minimum of 21 upper division units:

1. *Elementary Greek* - 8 units: GK 101A, 101B

2. *Upper Division Greek* - 12 units selected from the following: GK 301A, 301B, 351, 352, 490
3. *Classics Courses* - 15 units selected from the following: CLSC 124, 135, 191, 310I, 410I, 421I, 490, C/LT 310I*
*The Department strongly recommends that this course be taken in Greece during the winter session.
4. *Courses in Antiquity* - A minimum of 8 units selected from the following: LAT 101A, 101B, 321; AH 408, 416; COMM 300; C/LT 452**; ENGL 431; HIST 131, 313, 318; PHIL 421, 422, 490**; POSC 301; R/ST 471I
**with topic appropriate to ancient Greek studies and approval of advisor
The department additionally recommends C/LT 232

Minor in Classical Studies (code CLSCUM01)

The Minor offers students majoring in any subject an opportunity to supplement their education with background in the oldest European tradition.

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, both in the same language.
2. A minimum of two courses from: CLSC 124, 135, 191, 310I, 410I, 421I, 490, C/LT 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 C/LT 310I, or HIST 310I; C/LT 312I, or HIST 312I; HIST 313, 314,; PHIL 421, 422; AH 408, 416, 417; ENGL 426, 431; ANTH 140, 450; POSC 301; R/ST 471I.

Interested students should contact the Classics Advisor prior to or during the first semester of taking courses toward the Minor.

Minor in Greek (code CLSCUM03)

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 191, 310I, and other courses touching on the ancient world.

Minor in Latin (code CLSCUM02)

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 191, and 310I, and other courses touching on the ancient world.

Classics Courses (CLSC)

Lower Division

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 the emperor Constantine. Covers history of archaeology, chronology and dating systems and analytical methods of all aspects of material culture of the Mediterranean basin including urban planning, construction techniques, religious and secular artifacts, and domestic and civic architecture.

124. 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, the hero, theater, combat and sports, slavery and the family. Students will compare institutions of the ancient world and their modern counterparts.

135. 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.

191. 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.

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.

310I. Pagan Culture (3)

Prerequisites: Completion of Foundation requirement, completion of one or more Explorations Course, and upper division standing. This course examines the mass cultures of the Greek and Roman periods, its world view, and its philosophical and religious underpinnings through literary, artistic, archaeological and documentary sources.

410I. Law and Literature in the Classical World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An introduction to the study of the 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.

421I. Classical Drama (3)

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper division standing. Examination in translation of the plays of Aeschylus, Sophocles, Euripides, and Aristophanes both as literature and as theater. Includes discussion of origins of tragedy and comedy, later Greek and Roman drama, and the debt of modern drama to the theater of ancient Greeks.

490. Special Topics in Classics (1-4)

Prerequisite: Consent of instructor. Topics of special interest in Classics selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

A. Antiquity in Film

499. Directed Studies (1-3)

Prerequisite: Consent of instructor. Directed studies to permit individual students to pursue topics of special interest. May be repeated for credit up to maximum of six 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.

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/Corequisite: Any Foundation course. Prerequisite: GK 101A or equivalent. Continuation of Greek 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.

301A-B. Intermediate Greek (3-3)

Continued study of the language and culture. Reading and translating selections of classical writers.

301A. Prerequisite: GK 101B or equivalent.

301B. Prerequisite: GK 301A or equivalent.

351. Plato (3)

Prerequisite: GK 301B or equivalent. Translation and literary study of one or more dialogues of Plato.

352. Homer (3)

Prerequisite: GK 301B or equivalent. Translation and literary study of selected books of the *Iliad* or *Odyssey*.

490. Special Topics (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). Course may be repeated for a maximum of twelve 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 for credit up to a maximum of six 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, Seneca, Tacitus, and Juvenal as well as late Latin and medieval writers. Roman culture and civilization. Forms, syntax, and basic vocabulary to equip students to begin the study of these and other writers. Designed for those beginning the study of Latin or who have one year of high school Latin.

101B. Elementary Latin (4)

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.

301A-B. Intermediate Latin (3-3)

Continued study of the language and culture of the ancient Romans. Reading and translating selections of classical writers.

301A. Prerequisite: LAT 101B or equivalent, or two years of high school Latin.

301B. Prerequisite: LAT 301A or equivalent, or more than two years of high school Latin.

321. 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 to students with credit in LAT 101B.

401. Vergil (3)

Prerequisite: LAT 301B or equivalent. Reading of selections from Vergil's *Aeneid*, and/or selections from the *Georgics* and *Eclogues*. Course may be repeated in different semesters to a maximum of 6 units with different topics.

402. Cicero (3)

Prerequisite: LAT 301B or equivalent. Reading of one or more works of Cicero. Course may be repeated in different semesters to a maximum of 6 units with different topics.

403. Latin Lyric and Elegy (3)

Prerequisite: LAT 301B 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*). Course may be repeated in different semesters to a maximum of 6 units with different topics.

404. Latin Epic (3)

Prerequisite: LAT 301B or equivalent. Reading of selections from Lucretius' *De Rerum Natura* and/or Ovid's *Metamorphoses*. Course may be repeated in different semesters to a maximum of 6 units with different topics.

405. Historiography of the Republic (3)

Prerequisite: LAT 301B or equivalent. Reading of selections from Sallust and/or Julius Caesar. Course may be repeated in different semesters to a maximum of 6 units with different topics.

406. Historiography of the Empire (3)

Prerequisite: LAT 301B or equivalent. Reading of selections from Livy and/or Tacitus. Course may be repeated in different semesters to a maximum of 6 units with different topics.

407. Latin of the Early Principate (3)

Prerequisite: LAT 301B or equivalent. Reading of selections from the following authors and works: Pliny the Younger, Martial, Seneca's letters, Suetonius. Course may be repeated in different semesters to a maximum of 6 units with different topics.

408. Roman Comedy (3)

Prerequisite: LAT 301B or equivalent. Reading of one or more plays of Plautus and Terence. Course may be repeated in different semesters to a maximum of 6 units with different topics.

409. Roman Satire (3)

Prerequisite: LAT 301B or equivalent. Reading of selected satires of Horace, Juvenal, or Persius, the *Satyricon* of Petronius or the *Apocolocyntosis* of Seneca the Younger. Course may be repeated in different semesters to a maximum of 6 units with different topics.

410A-B-C. Latin Prose Composition (1-1-1)

Thorough instruction in writing Latin prose at the advanced level. Extensive coverage of syntax and morphology of Latin.

A. Prerequisite: LAT 301B or equivalent. Beginning Latin prose composition

B. Prerequisite: LAT 410A. Continuation of prose composition.

C. Prerequisite: LAT 410B. Continuation of prose composition.

490. Special Topics (1-3)

Prerequisites: LAT 301B or equivalent. Translation and study of authors of a particular period (e.g., Medieval Latin) or of a methodological specialty (e.g., Latin epigraphy). Course may be repeated in different semesters to a maximum of 9 units with different topics.

A. Medieval Latin

499. Directed Studies (1-3)

Prerequisite: Consent of instructor. Directed studies to permit individual students to pursue topics of special interest. May be repeated for credit to a maximum of six units.

COOPERATIVE EDUCATION

Division of Student Services

Director

Edward W. Morton

Office

Career Development Center

Coordinator

Robin T. Lee

Office

Brotman Hall (BH) 250

Telephone

(562) 985-8550

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Cooperative Education Office serves as a link between the University's academic programs and those public and private employers interested in the Internship Program. The program is designed to offer students academic credit for participation in monitored part-time or full-time practical and professional work experience that is directly related to their academic major or career goal.

The internships offered by the Internship Program are also designed to assist students in gaining a deeper understanding of the relationship between theory and practical application. Through on-the-job experience, students can assess their capabilities, clarify values, and explore career goals.

The accompanying internship courses (see below) provide students with up to 6 units of elective academic credit based on the work experience and required course assignments. Course discussions include relevant topics such as, work ethics, communication skills, conflict resolution, and employer-employee relations. Written assignments enable students to review and process the learning that takes place in the hands-on environment.

Cooperative Education (Co-Op) Internships

Cooperative Education internships offer students paid work experience in business, industry, government and the non-profit sector. Co-Op students may choose from two types of work experience. Students may alternate full-time work periods with full-time academic periods or they may work part-time while simultaneously attending the University. Upper-division Co-Op courses are available for up to 6 units of elective academic credit.

Educational Participation in Communities (EPIC)

The (EPIC) program provides volunteer internship opportunities for students who wish to participate in career-related field experiences that complement their classroom study. EPIC internships are available with organizations and agencies in the not-for-profit sector. Upper-division Co-Op courses are available for up to 6 units of elective academic credit.

Curriculum

CBA 493. Business Internship (1-3)

Prerequisites: Classified business major and instructor consent. Qualifying students will be placed in career-related paid assignments in private or public agencies or businesses. An organized plan utilizing a series of seminars and learning agreements is required along with selected reading and writing assignments. A minimum of 120 hours paid experience per semester is required. May be repeated for a maximum of six units.

ED P 492. Internship in Human Services (3)

Prerequisite: Consent of instructor. Students in any major are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. The required fifteen hour seminar shall focus on personal values, interpersonal communications skills, critical thinking, and problem solving as they relate to the students' field placement. Development of knowledge and skills transferable to future careers will be stressed. A minimum of 120 hours field experience is required for the semester.

ENGR 492B. Internship In Engineering (3)

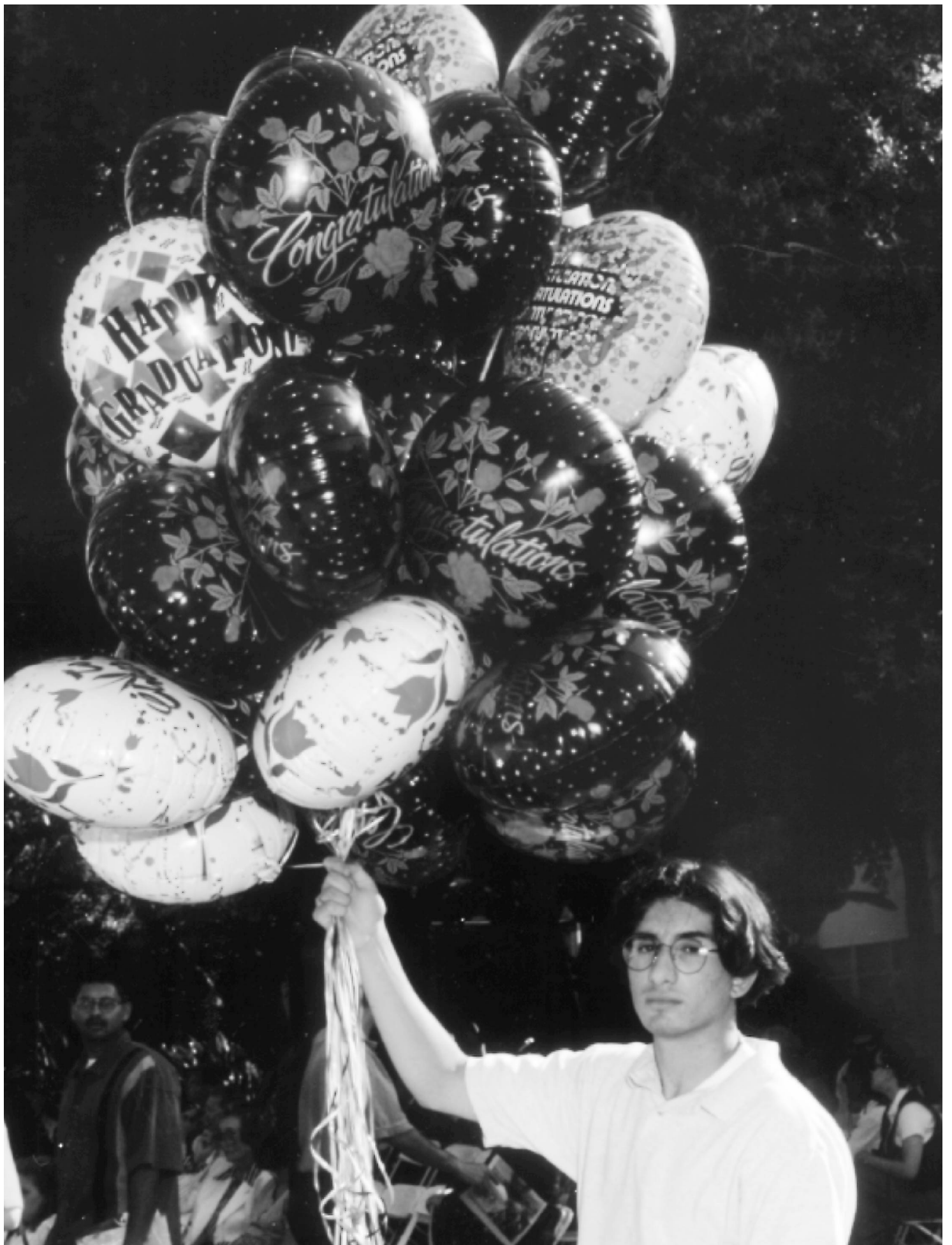
Prerequisite: Upper division standing and permission of the instructor. A Co-Op field experience. Students who qualify can be placed in a major - or career related, pre-professional experience as an employee in private industry or in public agencies. May be repeated to a maximum of six units. (Lecture-problems 3 hours).

HHS 492. Field Studies and Career Exploration (1-3)

Prerequisites: Consent of the instructor and a minimum GPA of 2.0. Provides a student with a career-related experience by allowing the student to work in the field or profession related to his or her major. Students qualifying may work in either a major or career-related volunteer or paid assignment in private industry, a non-profit agency, or a public agency. In addition to the practical experience, students will attend a series of seminars designed to complement this field experience by focusing on common issues to the work setting.

NSCI 492. Internships In Natural Science (3)

Prerequisites: Upper division standing and consent of instructor prior to registration. Students who qualify will be placed in a major or career-related assignment in private industry and public agencies. All participants utilize learning agreements. A final written report is required. Class attendance to be arranged by instructor. (9 hours experience per week). May be repeated for a maximum of six units. Credit/No Credit grading only.



CREDENTIAL PROGRAMS

Credentials

Public school teaching and service credentials in the State of California are regulated by the State Legislature and administered by the California Commission on Teacher Credentialing (CCTC). Credential programs offered at CSULB have been developed to meet current requirements which are complex and continually reviewed and changed by legislative action. Candidates for all credentials must meet legal requirements in effect when completing credential programs. It is the responsibility of the student to be familiar with the program requirements contained in this *Catalog* and to obtain current information from departments offering individual programs. For information regarding admission, academic requirements and field work, contact the specific credential program coordinator. For information on general credential requirements, regulations, pending changes and new legislation, contact the Credential Center, Education (ED) 1 Room 42 (credentials@csulb.edu).

Basic Credentials

There are three types of basic teaching credentials. The Multiple Subject Credential authorizes the holder to teach all subjects in a self-contained classroom, generally in an elementary school. A teacher authorized for multiple subject instruction may be assigned to teach in any self-contained classroom — pre-school, kindergarten, grades 1 through 12, or in classes for adults. CSULB offers the Multiple Subject Teaching Credential with subject matter met by either a program of coursework (Liberal Studies) or the examination California Subject Examinations for Teaching: Multiple Subjects (CSET). Another pathway to Multiple Subject Teaching is the Integrated Teacher Education Program (ITEP). ITEP combines study of academic subjects aligned to the California standards for the K-8 curriculum with professional preparation courses and field experiences leading to a Multiple Subject Credential. For more information, consult the Liberal Studies section of this catalog. For detailed information on the Multiple Subject Credentials, please refer to the section in this catalog listed within the department of Teacher Education or visit the department office located in ED1-17.

The Single Subject Credential authorizes the holder to teach within a specified subject-matter category. A teacher authorized for single subject instruction may be assigned to teach this subject at any grade level — pre-school, kindergarten, grades 1 through 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 CCTC-approved Subject Matter Programs in Art, Biological Sciences, Chemistry, English, Foreign Language (French, German, Japanese, Spanish), Geosciences, Health Science, Home Economics, Mathematics, Music, Physical Education, Physics, and Social Science.

The Education Specialist Credential authorizes a candidate to teach in a special education capacity with students with special needs. This K-12 credential certifies individuals to work as a special day class teacher, inclusion support teacher, or as a resource specialist.

Elementary and secondary teachers wishing to diversify their teaching authorizations may do so by fulfilling certain requirements to qualify for supplementary authorizations and/or add-on authorizations. Further information is available in the Credential Center, ED 1 – 42.

Specialist Credentials

CSULB offers specialist teaching credential programs in Early Childhood Education, the Resource Specialist Certificate of Competence, Reading and Language Arts Specialist, Reading Certificate, and the Adapted Physical Education Certificate. All specialist teaching credentials require a valid basic teaching credential.

Service Credentials

Service credential programs are available in the following areas: Preliminary Administrative Services, Professional Administrative Services, Library Media Teacher Services, Health Services (School Nurse), School Counseling, School Psychology, Clinical Rehabilitative Services – Language, Speech and Hearing, Clinical Rehabilitative Services – Language, Speech and Hearing with Special Class Authorization, Clinical Rehabilitative Services – Audiology, and School Social Work and Child Welfare and Attendance. Both the Preliminary Administrative Services and Library Media Teacher credentials require a valid basic teaching credential.

Designated Subjects Credentials

CSULB offers CCTC-approved programs leading to Designated Subjects, Adult, Vocational, and Designated Subjects Supervision credentials. Contact the Department of Occupational Studies, Engineering Technology (ET) – 233, for information.

Obtaining a Credential

Current credentialing law provides for a two-step program for basic teaching credentials, the Preliminary credential and the Professional Clear credential. The Preliminary credential requires:

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 (program or examination),
4. passage of CBEST (California Basic Educational Skills Test), and
5. completion of an approved course or examination in the U.S. Constitution,
6. demonstration of Level I computer technology proficiency (Course or exam).

The Preliminary credential is valid for five years from date of issuance, and is not renewable.

New requirements for the Professional Clear credential under Senate Bill (SB) 2042 became effective September 1, 2002. During the transition from the Ryan Professional Clear credential requirements to the SB 2042 Professional Clear credential requirements, teachers holding the Ryan Multiple

or Single Subject Preliminary credential may complete one of the following options to qualify for the Professional Clear credential:

1. a CCTC-accredited SB 2042 Professional Teacher Induction Program, if available, and the CPR component of the health education requirement if it was not already completed for the Preliminary credential; or
2. a Beginning Teacher Support and Assessment (BTSA) Program and the three additional requirements of health education (including CPR), special education, and computer technology if not already completed for the Preliminary credential; or
3. a fifth year of study (30 post-baccalaureate units) and the three additional requirements of health education (including CPR), special education, and computer technology if not already completed for the Preliminary credential.

Teachers holding the SB 2042 Preliminary credential may complete one of the following options to qualify for the Professional Clear credential:

1. a CCTC-accredited SB 2042 Professional Teacher Induction program, if available; or
2. a Beginning Teacher Support and Assessment (BTSA) Program and the three additional requirements of health education, special education, and advanced computer technology; or
3. if neither an Induction nor BTSA Program is available, a fifth year of study (30 post-baccalaureate units) and the three additional requirements of health education, special education, and advanced computer technology.

Please contact the Credential Center in the College of Education (ED1-42) for more information.

Entry Levels for Basic Credential Programs

Students may begin credential programs at three different levels:

1. Junior level – With a carefully planned program, initial education courses may be taken at the junior level with completion of the program within the four-year degree program culminating in a Preliminary teaching credential.
2. Senior level – Part of the credential program may be taken as an undergraduate to complete electives toward degree requirements. The remaining credential requirements are then completed at the post-baccalaureate level. The Preliminary credential is issued after completion of the credential program.

Note: By petition only, up to twelve units of course work taken in the final undergraduate semester (not needed to meet major or degree requirements) may be counted as postgraduate credit toward the Clear Credential. The petition must be filed prior to completion of the course(s). Petitions submitted after completion of the course will not be approved. Criteria and petition forms are available in the Single Subject Program Office, ED 1 – 54, and the Multiple Subject Program Office, ED 1 – 13.

3. Graduate level – The entire credential program may be completed at the post-baccalaureate level.

Application to Credential Programs

Information on application to credential programs is available from the appropriate department or program coordinator. Students planning to enroll in credential programs must also file an application for admission to the University.

Note: Multiple Subject Credential Programs have established application periods each year which are separate from the University application periods and process.

Application for Field Work and Student Teaching

Candidates for field work and student teaching for the Summer or Fall term of any year must apply by March 1. Spring candidates must apply by October 1.

Appeal Process

A student has the right to address an appeal to the appropriate committee regarding any policy related to admission and continuation in a basic teacher preparation program. Petition forms and assistance are available through the credential program coordinator or the department office.

For More Information

Adapted Physical Education	AS 2 – 214	985-4077
Administrative Services	ED 1 –10	985-4517
Clinical Rehabilitative Services	LAB – 102	985-4594
Credential Processing Center	ED 1 – 42	985-4109
Designated Subjects Credential	ET – 233	985-5631
Early Childhood Education	ED 2 –290	985-7090
Education Specialist	ED 1 – 17	985-9259
General Information		985-5710
Health Services	NUR – 17	985-4463
Library Media Teacher	LA 1 – 10	985-4517
Multiple Subject Credential	ED 1 – 17	985-9259
School Counseling & School Psychology	ED 1 –10	985-4517
Single Subject Credential	ED 1 – 54	985-5325

CRIMINAL JUSTICE

College of Health and Human Services

Department Chair

Sam Torres

Department Office

Social Science Public Affairs Bldg. (SS/PA), Room 258

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Bruce Berg

Elizabeth Deschenes

Judy H. Hails

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George Rush

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Ronald E. Vogel

Paul M. Whisenand

Associate Professor

John Wang

Assistant Professor

Brenda Vogel

Undergraduate Advisor

John Wang

Graduate Advisor

Elizabeth Deschenes

Internship Coordinator

Judy H. Hails

Office Manager

Susan McNamara

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The department of Criminal Justice offers an undergraduate bachelor of science degree and a graduate master of science degree. These programs are designed to provide students with an appropriate academic background for a professional career in corrections, law enforcement, probation, parole, or social service agencies. In addition, the programs are designed to prepare students for continuing graduate studies in criminal justice, criminology, or law.

Bachelor of Science in Criminal Justice (code CRIMBS01) (124 units)

The program in criminal justice offers the bachelor of science degree to individuals interested in seeking a comprehensive education leading to a professional career in criminal justice. The program is designed to accommodate the needs of the continuing student, the transfer student and the experienced criminal justice practitioner. Unfortunately, it is not possible to offer sufficient courses in the evenings for students to graduate with a degree in criminal justice.

Students intending to transfer from community colleges to this University for a bachelor of science degree in criminal justice are advised to complete general education requirements while attending the community college. A course equivalent to CRIM 101, The Criminal Justice System in Society, should be taken while attending community college. Other criminal justice courses taken at community colleges will only be accepted as lower division electives provided the college where they were taken designated them as transferable to CSU. These courses can not be substituted for upper division criminal justice courses.

Requirements

All students are required to take a minimum of 42 units of criminal justice course work to meet the department requirements for a bachelors degree in criminal justice: 30 units are CORE and 12 units are upper division electives in the major. CRIM 101 is a prerequisite or corequisite for all CORE courses. Students who would like to declare and/or change to criminal justice as their major/minor must have an overall G.P.A of 2.0 and be enrolled in or have completed CRIM 101 or an equivalent course at another college or university.

The 30 units of required courses that constitute the CORE are: CRIM 101, 301, 303, 331, 351, 404, 468, 480, 483, and 495. Students with upper division transfer units should consult the undergraduate advisor regarding substitutions for CORE classes. Courses taken at a two-year college may not be substituted for upper division CORE courses. All CORE courses must be passed with a letter grade of "C" or better (credit/no credit is not an option). Specifically, every CORE course in which a student receives a final grade of "D" or "F" must be repeated until a grade of "C" or higher is achieved.

In addition to the CORE classes, students are required to complete 12 units of upper division criminal justice electives which may be taken before, concurrently, or after the CORE courses. Any criminal justice course in the CSULB catalog

numbered 300 to 499 that is not a CORE class may be used as a criminal justice elective. Students with upper division transfer units should consult the undergraduate advisor regarding substitutions.

Minor in Criminal Justice (code CRIMUM01)

Requirements

All students are required to take a minimum of 21 units of criminal justice course work to meet the department requirements for a minor in criminal justice: 12 units are CORE, and the completion of nine units of upper-division criminal justice elective classes. CRIM 101 is a prerequisite or corequisite for all CORE courses.

The 12 units of required courses that constitute the CORE are: CRIM 101, 301, 404, and 351. All CORE courses must be passed with a letter grade of "C" or better (credit/no credit is not an option). Specifically, every CORE course in which a student receives a final grade of "D" or "F" must be repeated until a grade of "C" or higher is achieved.

In addition to the CORE classes, students are required to complete 9 units of upper-division criminal justice electives, which may be taken before, concurrently, or after the CORE courses. Any criminal justice course in the CSULB catalog numbered 300 to 499 that is not a CORE class may be used as a criminal justice elective. Students with upper-division transfer units should consult the undergraduate advisor regarding substitutions. Courses taken at a two-year college may not be used to meet this requirement.

Master of Science in Criminal Justice (code CRIMMS01)

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, private 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 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 Department of Criminal Justice Graduate Program should have an undergraduate degree and a desire for graduate study. Applicants must apply for admission to the Criminal Justice Department in addition to being admitted by the Office of Admissions and Records. Students must be accepted for admission by the Department 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 completed:

1. A graduate application. The original must be sent to the Office of Admissions and Records and a copy to the Department of Criminal Justice.

2. Scholastic achievement as represented by official transcripts of all undergraduate course work. Each applicant must request that official transcripts be sent to both the Graduate Advisor in the Criminal Justice Department and the Office of Admissions and Records.
3. Resume and statement of goals must be sent to the Department's Graduate Advisor and University Enrollment Services;
4. Three letters of recommendation from persons able to testify to the student's academic ability. These letters must be sent to the Department of Criminal Justice Graduate Advisor.

Prerequisites

1. A bachelor's degree with a major or minor in criminal justice or a related discipline. The acceptability of other undergraduate preparation shall be determined by the Department Graduate Committee;
2. A student must have an overall undergraduate average of 2.75 or better and an average of 3.0 in their major.

Advancement to Candidacy

1. Students must satisfy the general University requirements for advancement to candidacy, as specified in this bulletin.
2. Before advancing to candidacy students must have passed the Writing Proficiency Examination.
3. Before advancing to candidacy students must successfully complete CRIM 581, CRIM 582, CRIM 583, and CRIM 584 with a minimum grade of "B" in each of the courses.
4. Each student's graduate program must be approved by the Department Graduate Advisor and Director of Graduate Studies and Research, College of Health and Human Services.

Requirements

Eighteen (18) units of required courses constitute the CORE: CRIM 581, 582, 583, 584, 695, 698

In addition to the CORE classes, students are required to complete 12 units of electives. These courses are to be selected after consultation with the graduate advisor. A maximum of 6 units may be taken from 300 or 400-level courses in Criminal Justice designated with a * in *CSULB Catalog*. Undergraduate courses that are not designed with a * may not be applied toward the master's degree. No more than six units of CRIM 599 can be taken. Up to six units of graduate work may be transferred from another accredited university or another department in CSULB. Transfer credit must be a "B" or better. All students must earn a grade of "A" or "B" for each required course. Students may not have more than 6 units of "C" grades apply toward the master's degree. Advancement to candidacy is necessary before Thesis I or Thesis II can be taken.

Thesis or Project

The thesis or project is a supervised experience in the application of theory and analytical tools to an issue in criminology or criminal justice. The thesis should prepare students for further graduate work or research in the field. The project should provide an experience that is directly applicable to an occupation in the criminal justice field.

The 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. The coursework is supervised by a committee of three, including the Thesis Chair, who must be a full-time tenure-track or tenured faculty member in the Criminal Justice Department and two other faculty members.

The project is a significant undertaking appropriate to the professional field. It evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written report that includes the project's significance, a review of the literature, objectives, methodology, and a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. The coursework is supervised by a committee of three, including the Project Chair, who must be a full-time tenure-track or tenured faculty member in the Criminal Justice Department and two other faculty members.

Courses (CRIM)

Lower Division

101. The Criminal Justice System in Society (3)

Prerequisites/Corequisites: One of the foundation courses (may be taken concurrently). Introduction to the study of criminal justice as a social institution in American society. History and philosophy of the criminal justice system; survey of theories of crime, punishment and rehabilitation; study of ethical issues in social control. The functions and role expectations of the criminal justice system will be explored. Interaction between the citizen and the components of the system will be examined. (CAN AJ2) Letter grade only (A-F).

151. Introduction to Criminal Law (3)

Prerequisite: CRIM 101. Historical development and current application of criminal law and related constitutional provisions. Focus is on major crimes against the person and against property. Capacity to commit crimes and affirmative defenses are also covered.

Upper Division

301. Contemporary Issues in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101. Criminal Justice studied as a total interacting system: police, corrections, probation and the judiciary. Special emphasis is placed on current issues and problems. Letter grade only (A-F).

302. Communication for Criminal Justice (3)

Prerequisites: ENGL 100; upper division standing; open only to Criminal Justice majors. Written communication principles and practice in the criminal justice profession.

303. Statistics for Criminal Justice Administrators (3)

Prerequisite/Corequisite: CRIM 101. This course will explore statistical procedures used for the analysis of data by criminal justice administrators in decision-making situations. Emphasis is placed upon understanding and satisfying the restrictions placed upon the most commonly used statistical procedures, descriptive as well as inferential. A discussion of frequently used statistical programs for the computer analysis of data will also be covered, including a "hands-on" approach to computer applications. Letter grade only (A-F).

*305. Ethical Concerns in Criminal Justice (3)

Identifies and explores ethics, values definitions and applications in the criminal justice system: police, courts, probation, parole, corrections and private security organizations. Discusses remedial strategies and behavior relating to unethical behavior from an individual and group perspective.

325. Police Administration (3)

Program approach to the study of police administration. Overview of administration of the police function in the United States. Organization, management and operation of policing agencies.

331. Security and the Criminal Justice System (3)

Prerequisite/Corequisite: CRIM 101. A study of the differences in the theoretical and actual associations between security functions and the criminal justice system. Major topics that are explored include the historical and contemporary relationship between private security and sworn law enforcement, institutional culture, terrorism, computer technology, forensics and physical/operational security. Letter grade only (A-F).

351. Adjudication Process in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101. Topics related to the adjudication process in criminal cases are covered including: arraignments and preliminary hearings; suppression hearings; sanity hearings; trials; sentencing in capital and non-capital cases; juvenile court proceedings; and revocation of probation and parole. Civil Rights Act cases and other civil suits involving criminal justice personnel are discussed. Letter grade only (A-F).

356. Legal Aspects of Corrections (3)

An overview of court decisions related to corrections. Study of current legal issues and their impact on adult and juvenile procedures.

*359. Substance Abuse and the Criminal Justice System (3)

An examination of substance abuse. Consideration of the social and psychological factors related to alcohol and drug use, abuse and addiction. Concentration on the legal and social elements of substance abuse and their relationship to the criminal justice system; characteristics and categories of various controlled substances; categories of drug offenses; and investigation of drug cases.

361. Criminal Investigation (3)

The study of basic principles in criminal investigation. Analysis of current investigative techniques, patterns and modus operandi, interviewing and interrogation strategies, collection and management of evidence, surveillance, and crime scene investigation. Course will also cover theories, philosophies, and concepts related to prevention and suppression of crime.

369. Correctional Environments (3)

An introduction to the history and current practice of American penology. A first-hand examination of penal institutions and correctional facilities including county, state and federal facilities. It also includes the Department of Children Services (foster care, county and private facilities), juvenile halls and court, and the California Youth Authority. Field trips will be required. Course fee required.

404. Theories of Crime Causation, Prevention and Control (3)

Prerequisite/Corequisite: CRIM 101. This course explores the theories and policy implications of crime in our society. The political, social, and economic environment in our society will serve as the context for the exploration of the etiology of criminal behavior. The underpinnings of criminological theory will be traced through history by focusing on its connection to biology, psychology, and sociology. Letter grade only (A-F).

405. Job Stress and the Criminal Justice System (3)

Theoretical foundations of stress based on current research findings with emphasis on individual assessment, signs and symptoms, causes and effects. In addition, specific stress management skills such as relaxation, meditation, self hypnosis, pain control, biofeedback, nutrition, and exercise will be covered. Not available to students with credit in CRIM 499: Job Stress and the Criminal Justice System.

420./520. Criminal Justice Information and Technology (3)

An examination of the use of computers and technology in the administration of criminal justice. This seminar focuses on current technology. This seminar will focus on a computer desktop mapping geographical information system (GIS) software that utilizes database information to conduct spatial, frequency, and time analysis of crime. The basic approach of this seminar will be to explore procedures that can be used to collect, manage, analyze, and display crime information as a map, chart, or table. Also, a review of the internet and various web sites will be utilized to identify data sources, e.g., census, crime, other. Graduate students will be expected to complete two rather than one project. Grades for these projects are weighted differently for graduate students than undergraduate students. Letter grade only (A-F).

421. Contemporary Issues in Law Enforcement (3)

An examination of various timely law enforcement related subjects including policy and procedures; recruitment of women and minorities; mob and riot activities; hate crimes; ethics and ethical training; administrative and management strategies; special assignments and units; organized crime; task forces; and community policing.

424. Theories of Complex Criminal Justice Organizations (3)

Theories, concepts, issues and applications of administrative and management styles within various criminal justice organizations. Emphasis on various organizational systems, leadership approaches, the organizational culture, occupational socialization; recruitment and retention, communications, change and adaptiveness, and motivation of organizational members.

*451. Search and Seizure, Confessions and Evidence (3)

A study of criminal procedures mandated by the U.S. Constitution with emphasis on search and seizure, confessions, and the right to counsel. Course also covers evidentiary rules that must be employed to introduce testimony and physical evidence in a court proceeding. Not available for students with credit in CRIM 353.

468. Correctional Systems (3)

Prerequisite/Corequisite: CRIM 101. Historical and philosophical development of societal reactions to law violators. Overview of the two major components of the correctional system: institutional and community corrections. Examination of the differing types of penal institutions and an evaluation of rehabilitation as a crime control strategy. Probation, parole, and other alternatives to incarceration will be explored as practical criminal sanctions. Field trips may be required. Letter grade only (A-F).

*470. Probation, Parole and Community Corrections (3)

Historical and philosophic overview of community corrections. The focus is on probation and parole as well as wide range of intermediate sanctions and community treatment options. Community corrections will be examined from both punishment and treatment model perspectives. The process and components of the presentence investigation (PSI) will be analyzed. Supervision of the offender in the community will be explored as well as the revocation process. Field trips may be required.

*477. Correctional Counseling (3)

Theories and techniques of counseling utilized by correctional workers. Evaluation of the effectiveness of correctional treatment. Various correctional counseling and crisis intervention strategies will be examined including reality therapy, behavior modification, group counseling, and 12-step programs. Special areas of correctional treatment such as substance abuse, mental illness, sex offenders, and the elderly will be considered.

480. Introduction to Research Methods in Criminal Justice (3)

Prerequisite/Corequisite: CRIM 101. Introduction to basic techniques in criminal justice research including library research, report writing, research design models, sampling techniques, questionnaire construction, interview techniques and participant observation. Letter grade only (A-F).

*482. Crime, Criminal Justice Systems and the Political Process (3)

This course explores the impact of politics on the criminal justice system. The social, historical, economic, and political forces that shape policies in criminal justice are explored. A critical analysis

of the legal structure, police, courts and corrections is used to examine the efficacy, fairness and quality of justice in our society. This lecture course is designed to promote and develop critical thinking skills.

483. Enforcement Systems (3)

Prerequisite/Corequisite: CRIM 101. Historical tracing of modern American policing from its ancient and Anglo-Saxon roots. Examination of police as a social institution and a control agent. Consideration of modern police patrol strategies; the contemporary role of the police officer; training procedures; ethical standards; women and minority officers; discretion; and corruption in police agencies. Letter grade only (A-F).

484. Comparative Criminal Justice Systems (3)

Prerequisites: Crim 101 or with consent of instructor. Survey of nationwide and worldwide criminal justice philosophies and techniques. Evaluation of current major hypotheses. Review of recent developments and contributions by agencies and academic institutions. Review of current literature in the field. Letter grade only (A-F).

487. Juvenile Justice (3)

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.

490. Independent Study (1-3)

Prerequisite: Consent of instructor. Individual research and study approved by major professor. May be repeated for credit not to exceed a total of 3 units.

*492. Criminal Justice Response to Domestic Violence (3)

Domestic violence is studied as a phenomenon that impacts the criminal justice system. Spouse abuse, child abuse and elder abuse are studied. Strategies for criminal justice personnel handling these cases are stressed.

493. Computer Applications in Criminal Justice (3)

The course will focus on computer technology and its application to criminal justice. The use of data processing in training, research, field operations, supervision, and administration will be examined. Federal, state, local and private applications; issues concerning civil liberties; and bank security policy options are also discussed.

494. Criminal Justice and Gangs (3)

This course covers the multifaceted aspects of gangs, gang membership and identification. Subjects include historical, psychological, sociological, and economic rationales for gang involvement. Topics include origins, identification, causal factors, coping mechanisms, and remedial systematic approaches. Not open to students with credit in CRIM 499D.

*495. Internship (3)

Prerequisite: Consent of instructor and CRIM 101. Supervised work experience in criminal justice agency in the immediate area. May be repeated for a maximum of six units. (Not open to employed criminal justice officials.)

499. Special Topics in Criminal Justice (3)

Prerequisite: Consent of instructor. Topics of current interest in the field of criminal justice selected for intensive development. Topics are announced in the *Schedule of Classes*. May be repeated for a maximum of 9 units with change of topic.

E. Readings in Criminology and Criminal Justice

Graduate Level

512. Seminar on Diversity and Criminal Justice Practices (3)
Study of the effect social, economic, and cultural diversity has on the development and implementation of Criminal Justice practices. Will include topics such as hate crimes, minority perceptions of crime, victim services, and cultural awareness. Letter grade only (A-F).

520./420. Criminal Justice Information and Technology (3)

An examination of the use of computers and technology in the administration of criminal justice. This seminar will focus on computer desktop mapping geographical information system (GIS) software that utilizes database information to conduct spatial, frequency, and time analysis of crime. The basic approach of this seminar explores procedures that can be used to collect, manage, analyze, and display crime information on a map, chart, or table. Also, a review of the internet and various web sites will be utilized to identify data sources, e.g., census, crime. Graduate students will be expected to complete two rather than one project. Grades for these projects are weighted differently for graduate students than undergraduate students. Letter grade only (A-F).

551./451. Contemporary Legal Issues in Criminal Justice (3)

A study of criminal procedures mandated by the U.S. Constitution with emphasis on search and seizure, confessions, and the right to counsel. Course also covers evidentiary rules that must be employed to introduce testimony and physical evidence in a court proceeding. Not available to students with credit in CRIM 353.

581. Theories of Crime Causation and Prevention (3)

Relationship and interaction between social structure and crime. Investigation into the classical and behavioral theories of crime and crime prevention.

582. Advanced Statistics for Criminal Justice Research (3)

Prerequisites: One undergraduate social science statistics and research methods course. Statistical inference in normally distributed populations. Regression and multivariate analysis of research data. Utilization of non-parametric statistics. (Lecture 3 hours). Letter grade only (A-F).

583. Research Methodology (3)

Prerequisites: One undergraduate research and statistics course. Scientific method of research; variations in research design and methodology; application of research findings to problem solution. Not available to students with credit in CRIM 696. Letter grade only (A-F).

584. Professional Literature (3)

Critical analysis and comparative review of professional literature in criminal justice practice, theory, and research. Will include topics of components of research publications; substantive content of articles; library/online searches; critiques of the literature, citations, reference styles, and literature reviews. Required core course. Not available for students with credit in CRIM 691. Letter grade only (A-F).

590. Independent Study (1-3)

Prerequisite: Consent of instructor. Individual research and study approved by graduate advisor. May be repeated for credit not to exceed a total of three units.

599. Special Topics in Criminal Justice (3)

Group investigation of selected topics in criminal justice. Topics to be announced in the *Schedule of Classes*. May be repeated for a maximum of six units.

621. Seminar on the Administration and Management of Criminal Justice Organizations (3)

Study of criminal justice policy development and implementation; administrative theory and issues; problems and current agency activities. Letter grade only (A-F).

623. Seminar in Comparative Criminal Justice Administration (3)

Advanced study of the theories, philosophies and techniques of criminal justice worldwide and nationwide. Intensive review of the literature, recent developments and individual research. Letter grade only (A-F).

624. Crime and Public Policy (3)

Intensive study of problem areas in crime and justice. Will include topics of control and prevention of crime in urban settings; changing law enforcement and correctional policies; philosophy of law; inter-agency relationships. Letter grade only (A-F).

630. Seminar on Organized Crime (3)

Historical development of organized crime and various techniques used to control this form of criminality. Detailed consideration of the political, social and economic conditions of its evolution. Not available to students with credit in CRIM 599 on the topic "Organized Crime." Letter grade only (A-F).

640. Seminar on Police Organization and Management (3)

Leadership theories, practices, issues and trends in managing police organization. Thematic areas of focus are: values, ethics, teambuilding, empowerment, politics, Community Oriented policing, and future forecasting. Letter grade only (A-F).

641. Seminar in Correctional Policy and Administration (3)

Study of the history, development, and implementation of correctional programs. Analysis of the theories, philosophies, concepts and issues related to the administration and management of prisons, probation, and parole. Letter grade only (A-F).

650. Seminar in Juvenile Justice (3)

Study of juvenile justice programs administered by the police, court and correctional agencies; analysis of theories of delinquency causation and prevention; current issues. Letter grade only (A-F).

695. Thesis or Project I (3)

Prerequisite: Advancement to Candidacy. Student works under direct faculty supervision to complete a proposal for the research study or project. Comprehensive review of the literature on a topic and development of appropriate methodology. For project option student must obtain agency approval and agreement. Letter grade only (A-F).

697. Directed Research (3)

Extensive independent research on assigned topics addressing theoretical criminology and synthesis of literature on current issues in criminal justice. Work produced in CRIM 697 will be presented in CRIM 699. Not available to students in thesis option. Letter grade only (A-F).

698. Thesis or Project II (1-4)

Prerequisite: CRIM 695. For thesis option, student conducts research and data analysis to complete thesis. For project option, student documents progress in project design and implementation. Letter grade only (A-F).

699. Integrated Analysis of Criminal Justice (3)

Prerequisite: CRIM 697. Integration and synthesis of key concepts and issues related to the administration of criminal justice. Project is required. Not available to students in thesis option. Letter grade only (A-F).

DANCE

College of the Arts

Department Chair

Judy Allen

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Karen Clippinger

Colleen Dunagan

Keith Johnson

Andrew Vaca

Administrative Coordinator

Debbie Swiderski

Clerical Assistant

Lin Burch

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The Dance Department provides in-depth curricula including courses in history, music, notation, production, theory, composition, performance, and studio technique in modern, ballet, jazz, and tap. The undergraduate curricula are designed to give students basic dance background which prepares them as performers in concert dance companies, television or films; as choreographers; or as teachers at the secondary or community college level in both public and private schools. All new students enter the major under the BA degree. A separate audition for entrance into the BFA degree plan is required.

Non-major studio classes in ballet, modern, jazz, and tap are open to all students and do not require any audition. Several courses are offered which meet the General Education Foundation and Capstone requirements in categories C, D, E, and IC.

A large number of part-time faculty members supplement the expertise of the full-time faculty.

Dance concerts with faculty, students, and visiting choreographers are held in the Martha B. Knoebel Dance Theater. Dance majors and minors are encouraged to participate in activities of the Dance student organization, "Off 7th Dancers."

Students wishing to major or minor in dance must audition for placement prior to starting the program. Auditions are held four times per year. Applicants should contact the Department of Dance to obtain audition dates and an audition application form. Students desiring more information should contact the department office for referral to one of the faculty advisors.

The Department is an accredited institutional member of the National Association of Schools of Dance (National Association of Schools of Dance, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

Bachelor of Arts in Dance (code DANCBA01) (120 units)

Requirements

Composition (8 units): DANC 120, 220, 320.

Theory (21 units): DANC 100, 131, 260, 373I, 435I, 442B, 470, or 475, three units from 488, 491A, or 491B.

Performance/Production (4 units): Two units from 181A, 181B, 381A, 381B, 481A, or 481B; two units from 180A, 180B, 295, 380A, 380B, 480A, 480B, or 495.

Technique (20 units): Twelve units from DANC 152, 252, 312, 412, (3 units must be earned from 312 or 412); eight units from DANC 154, 254, 314, 316, 414 (2 units must be earned from 314 or 414).

Electives (6 units): Select six units from DANC 161, 262, 331, 350, 360, 362, 420, 442A, 445, 470, 475, 488, 491A, or 491B.

Option in Dance Science (code DANCBA02) (120 units)

The B.A. in Dance, Option in Dance Science offers the dance major a course of study combining dance with specific science courses for students interested in teaching careers in dance, or careers in the fitness industry such as exercise leader, personal trainer, or program director. This degree also gives preparation for those who seek graduate study in the areas of dance science, exercise science, dance education, or one of the health professions such as physical therapy.

Admission into the program is the same for the general B.A. in Dance which requires passing an entrance audition for placement in the major sequence of dance technique courses and meeting all University entrance requirements.

Requirements

Composition (5 units): DANC 120, 220.

Theory (38 units): DANC 100, 161, 260, 262, 360, 373I, 442B, 470; BIOL 207, 208; KPE 300, 301, 312.

Performance/Crew (2 units): one unit from DANC 181A, 181B, 381A, 381B, 481A, 481B; one unit from DANC 180A, 180B, 295, 380A, 380B, 480A, 480B, 495.

Technique (20 units): twelve units from DANC 152, 252, 312, or 412; 3 must be earned in 312 or 412. Eight units from DANC 154, 254, 314, 316, or 414; 2 must be from 314 or 414.

Electives: 8-9 units from DANC 362, FCS 430, KPE 307, 309, 315, 339I, 363, 368, 430, 462, 467.

Bachelor of Fine Arts in Dance (code DANCBF01) (132 units)

The Bachelor of Fine Arts in Dance is the only professional undergraduate degree in Dance in the CSU. The primary objective of the degree program is to prepare graduates for positions as performers and/or choreographers in dance companies, musical theatre, film, and television. The program also will prepare students for entry into Master of Fine Arts programs in Dance. Preparation: All students wishing to pursue the BFA in Dance must demonstrate intermediate/advanced technical skill in dance by audition. Students may take the BFA studio audition, for entrance into this degree plan, after completing the following course work with a grade of "B" or better: DANC 120, 220, 252, 254, 380A or B, 381A or B.

Requirements

Composition (11 units): DANC 120, 220, 320, 420.

Theory (29 units): DANC 100, 131, 260, 161 or 262, 350 or 445, 373I, 442A, 442B, 470 or 475; six units from 488, 491A, or 491B.

Performance/Production (7 units): Two units from 181A, 181B, 381A, 381B, 481A, or 481B; five units from 180A, 180B, 295, 380A, 380B, 480A, 480B, or 495.

Technique (25 units): Fifteen units from DANC 152, 252, 312, 412; 3 must be earned from 412. Ten units from DANC 154, 254, 314, 316, 414; 2 must be earned from 414.

General Education (6 units): DANC 373I and one course from one of the following: AH 115B, 115C, 335I; C/LT 124, 161, 232, 324I, 412I; PHIL 361; MUS 180, 190, 290, 363I, 364I, 375, 490; THEA 124, 324I.

Minor in Dance (code DANCUM01)

Students wishing to minor in dance must audition for placement prior to starting the program. The Minor in Dance is available to any non-dance major.

Requirements

24 units of which 9 must be upper division. Technique (12 units): 9 units from DANC 152, 252, 312, or 412 (3 of which must be from DANC 252). Three units from DANC 154, 254, 314, or 414. Theory/Production/Performance (10 units): DANC 120, 220, 442B; 1 unit from DANC 380A, 380B, 480A, 480B, or 495; and one unit from DANC 381A, 381B, 481A, 481B. Electives (2 units): DANC 131, 161, 320, 350, 373I, 442A, 435I, 445, 475.

Master of Arts in Dance

General Option (code DANCMA01)

The Master of Arts Degree in Dance is designed for experienced dance faculty in high schools and community colleges.

Criteria for Admission into the Program

Candidates must meet the following criteria for entrance into the M.A. in Dance:

1. Bachelor's degree from an accredited institution with a degree in dance or a related field;
2. 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 in a high school, or for an exemplary employment history of teaching dance in other venues);
3. A minimum 3.0 gpa is required in the last 60 semester units of the BA or BFA, or any previous graduate course work applied to this degree;
4. Three letters of recommendation, of which one must be from a supervisor or colleague;
5. Movement audition.

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. Continue satisfactory progress toward the degree objective.

Advancement to Candidacy

1. Satisfy the general university requirements for advancement to candidacy and departmental criteria for admission.
2. Satisfactory completion of the CSULB Writing Proficiency Examination.
3. Maintain a minimum of a 3.0 GPA in all work undertaken for the graduate program.
4. Completion of a minimum of six units of graduate work.
5. Removal of any incompletes.

6. Filing of the student's graduate program form for the Master of Arts in Dance, signed by the student's graduate committee and approved by the Associate Dean for graduate accountability.

Requirements

A minimum of 30 units with 24 units in DANC 510A, 510B, 521, 565, 591A, 591B, 605, 642; 6 units in DANC 698.

Master of Fine Arts in Dance (code DANCMF01)

This 60-unit plan of study emphasizes performance and choreography grounded in the modern dance genre, and requires 3 years in residence to complete all course work. The Master of Fine Arts degree is the terminal degree in the studio area of dance. It offers professional training preparatory for careers in performance and choreography, and is highly desired by major dance schools in the United States for university and college teaching. CSULB offers the only MFA in Dance in the California State University system.

The Dance Department has chosen to keep the MFA degree program small and selective in order to provide adequate resources to all students in the degree plan. It is expected that applicants for the MFA in Dance should have some life experiences in the field prior to application; therefore, this would normally preclude a person who recently was awarded an undergraduate degree.

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. passing the Writing Proficiency Exam;
2. completion of all prerequisites;
3. completion of 20 graduate dance units with a GPA of 3.0;
4. Approval of Graduate Advisor.

Prerequisites

Advanced technique, Dance Composition (3 courses), Dance History (2 courses), Music for Dance, Anatomy/Kinesiology, Dance Notation or Laban Movement Analysis, Dance Production (2 courses). Candidates may take prerequisite courses along with graduate courses.

When an undergraduate degree is completed in a program which has different requirements than those of the CSULB dance major, additional preparation may be required before the student can be considered for classified status. Up to 24 units from an M.A. degree program may be acceptable, with approval of the graduate advisor.

Application Requirements

1. A CSULB post-baccalaureate application.
2. The following returned to the CSULB Dance Department:
 - a. letter of application;

- b. resume;
- c. 3 letters of reference;
- d. VHS video of a recent group choreographic work;
- e. 2-page (typed, double spaced) personal statement addressing how graduate work will fulfill intended professional goals.

3. Audition on the CSULB campus to include a technique class and presentation of a 3-5 minute solo composition.

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 incompletes.

Performance Concentration

45 to 47 units to include: DANC 512, 514, 580A, 580B, 585A, 585B, 595, 597, 642, 699;

Electives: 13 to 15 units selected from DANC 518, 528, 520B, 520C, 520D, 545, 583A, 583B, 591A, 591B, 599 or up to 15 units selected from other departments with approval of advisor.

NO NEW STUDENTS ADMITTED IN 2003-2004 YEAR.

Choreography Concentration

47 to 49 units to include: DANC 510A, 510B, 520A, 520B, 520C, 520D, 580A, 580B, 585A, 585B, 591A, 591B, 597, 642, 699;

Electives: 11 to 13 units selected from DANC 510C, 510D, 514, 518, 545, 595, 599 or up to 13 units selected from other departments with approval of advisor.

NO NEW STUDENTS ADMITTED IN 2003-2004 YEAR.

Performance/Choreography Concentration

60 units total: 16 units in Technique from DANC 512, 514, with a minimum of 12 units from DANC 512, and a minimum of 4 units from DANC 514; 18-20 units in Theory from DANC 505, 531, 565, 588, 597, 599, 605, 642; 10 units in Choreography from DANC 520 A, B,C,D,E; 4 units in Performance from 580 A,B, 585 A,B, 595; 6 units DANC 699 (Thesis), 4-6 units electives.

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. (Non-major technique classes are not screened. They are open to all students.)

Lower Division

100. Orientation to Dance (1)

Corequisite: DANC 152 or 154. Introductory information, degree requirements, career opportunities, current problems and issues in the field. Credit/No Credit grading only.

101. Introduction to Modern Dance (3)

Prerequisite: Completion of General Education Foundation courses. An 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 to dance majors.

102. Introduction to Ballet (3)

Prerequisite: Completion of General Education Foundation courses. An exploration of ballet as a 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 to dance majors.

105. Latin Jazz (2)

Basic skills and techniques in Latin Jazz. Not open to dance majors. Course may be repeated to a maximum of 4 units. (4 studio hours)

106. African Dance (2)

Basic skills and technique in African dance designed to incorporate its role in African culture. Course may be repeated to a maximum of 4 units. (4 studio hours)

108. Beginning Flamenco (2)

Basic skills and technique in the style of Flamenco dance designed to incorporate its role in Spanish culture. Course may be repeated to a maximum of 4 units. (4 studio hours)

109. Beginning Hip-Hop (2)

Basic skills and techniques in the style of Hip-Hop dance. Course may be repeated to a maximum of 4 units. (4 studio hours)

110. Viewing Dance (3)

Prerequisite/Corequisite: A General Education Foundation course. Introduction to contemporary dance theater through viewing dance films (modern dance, ballet and ethnic), dance performances, and lecture/discussions on dance.

111. Fundamentals of Modern Dance (2)

Basic skills and techniques of modern dance. Not open to dance majors. Course may be repeated to a maximum of 4 units. (4 studio hours)

112. Beginning Modern Dance (2)

Prerequisites: DANC 111 or consent of instructor. Open to Non-majors. Increased skill and techniques of modern dance. Course may be repeated to a maximum of 8 units. (4 studio hours)

113. Fundamentals of Ballet (2)

Basic skills and techniques of ballet. Not open to dance majors. Course may be repeated to a maximum of 4 units. (4 studio hours)

114. Beginning Ballet (3)

Prerequisites: DANC 113 or consent of instructor. Open to Non-majors. Increased skill and techniques of ballet. Course may be repeated to a maximum of 12 units. (6 studio hours)

115. Fundamentals of Jazz (2)

Basic skills and techniques of jazz. Not open to dance majors. Course may be repeated to a maximum of 4 units. (4 studio hours)

116. Beginning Jazz (2)

Prerequisites: DANC 115 or consent of instructor. Basic theory and practice of modern jazz dance. Course may be repeated to a maximum of 8 units. (4 studio hours)

117. Beginning Tap Technique (2)

Basic technique in the tap dance idiom, time steps, stylistic patterns, rhythmic patterns and tap combinations. Course may be repeated to a maximum of 4 units. (4 studio hours)

120. Improvisation I (2)

Use of improvisation as an introduction to structural form; individual and group problems. (4 studio hours)

131. Introduction to Music for Dance (2)

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. (4 studio hours) Letter grade only (A-F).

152. Modern Technique I (3)

Prerequisites: Dance Major or Minor, and placement screening. Corequisite: DANC 181A or B. Intermediate skill in modern technique. Letter grade only (A-F). Repeatable to a maximum of 12 units. (6 studio hours)

154. Ballet Technique I (3)

Prerequisites: Dance Major or Minor, and placement screening. Corequisite: DANC 181A or B. Intermediate skill in ballet technique. Letter grade only (A-F). Repeatable to a maximum of 12 units. (6 studio hours)

160. Makeup for Dance (1)

Prerequisite: Dance major or minor. Designed to develop expertise in proper makeup techniques integral to dance performance. Instruction, exploration, and experimentation with various types of makeup include corrective and fantasy makeup, hair, masks, and makeup rendering. (2 studio hours) Letter grade only (A-F). Course may be repeated to a maximum of 2 units.

161. Placement for the Dancer (2)

Prerequisites: Open to Dance Majors and Minors. Body Placement and corrective exercises for modern dance and ballet classes. Letter grade only (A-F). (4 studio hours)

179. Exploring Dance: The Language of Movement (3)

Prerequisites: Open to all Liberal Studies Majors, open to others with permission of the instructor based on availability. Exploration of the movement language of dance: as it relates to the creative process in producing dance; to historical and cultural aspects of dance; as the basis for critical thinking and aesthetic valuing in dance; and to activities geared to the developmental aspects of children, 5-12 years, as outlined in the California State Framework for the Visual and Performing Art, and guidelines. Dance Component, grades k-8. (Lecture 2 hrs, 2 studio hours)

180A. Dance Performance (1)

Prerequisites: Audition, dance major or minor. Participation in dance productions. Letter grade only (A-F). Repeatable to a maximum of 4 units. (2 studio hours)

180B. Dance Performance (1)

Prerequisites: Audition, dance major or minor. Participation in dance productions. Letter grade only (A-F). Repeatable to a maximum of 4 units. (2 studio hours)

181A. Dance Production Technical (1)

Corequisite: DANC 152, 252, 154 or 254. Technical participation in Dance Department-sponsored productions. Repeatable to a maximum of 4 units. Letter grade only (A-F). (2 studio hours)

181B. Dance Production Technical (1)

Corequisite: DANC 152, 252, 154 or 254. Technical participation in Dance Department-sponsored productions. Repeatable to a maximum of 4 units. (2 studio hours)

214. Ballet Pointe (1)

Prerequisite DANC 114 or consent of instructor. Development of the technique of dancing in pointe shoes. May be repeated for a maximum of 4 units. Letter grade only (A-F). (2 studio hours)

216. Intermediate Jazz (2)

Prerequisites: DANC 116 or consent of instructor. Basic theory and practice of modern jazz dance. Course may be repeated to a maximum of 8 units. (4 studio hours)

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. Course may be repeated to a maximum of 4 units. (4 studio hours)

220. Dance Composition I (3)

Prerequisite or Corequisite: DANC 120, 131. Theory and practice in the basic elements of dance composition. Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)

252. Modern Technique II (3)
Prerequisites: Dance Major or Minor, and placement screening. Intermediate skill in modern technique. Letter grade only (A-F). Repeatable to a maximum of 12 units. (6 studio hours)

254. Ballet Technique II (3)
Prerequisites: Dance Major or Minor, and placement screening. Intermediate skill in ballet technique. Letter grade only (A-F). Repeatable to a maximum of 12 units. (6 studio hours)

260. Functional Anatomy for the Dancer (3)
Prerequisites: DANC 161 or consent of the instructor. A thorough examination of the muscles, bones, and joints of the spine, foot, ankle, knee, shoulder, and pelvis as they relate to the functional application of dance movement. Letter grade only (A-F).

262. Pilates I (3)
Prerequisites: DANC 260 or BIOL 208. Pilates-based conditioning program for dance majors employs a prescribed series of exercises performed on the floor mat and augmented to Reformer use. Letter grade only (A-F). (6 studio hours)

295. Repertory (1-3)
Prerequisites: Audition, dance major. Experience in rehearsal and performance practice in an intensive format. Letter grade only (A-F). Course may be repeated for a maximum of 6 units. (2-6 studio hours)

Upper Division

312. Modern Technique III (3)
Prerequisites: Placement screening. A course for undergraduate dance majors in the intermediate/advanced skill of modern dance techniques. Letter grade only (A-F). Course may be repeated to a maximum of 12 units. (6 studio hours)

313. Modern Dance Workshop (1-3)
Prerequisite: Dance major or minor. Exploration of the techniques of modern dance. May be repeated for a maximum of 6 units. (2-6 studio hours)

314. Ballet Technique III (2)
Prerequisites: Dance Major or Minor, and placement screening. Advanced/intermediate skill in ballet technique. Letter grade only (A-F). Course may be repeated to a maximum of 8 units. (4 studio hours)

315. Ballet Workshop (1-3)
Prerequisite: Dance major or minor. Exploration of the techniques of ballet. May be repeated for a maximum of 6 units. (2-6 studio hours)

316. Advanced Jazz (2)
Prerequisites: DANC 216 or consent of instructor. Advanced theory and practice of jazz technique. Course may be repeated to a maximum of 8 units. (4 studio hours)

317. Advanced Tap Technique (2)
Prerequisites: DANC 117 and 217 or placement screening. Advanced skills in tap technique concentrating on rhythmic complexity, heightened tempos, improvisational work, and contemporary tap styles. Course may be repeated to a maximum of 8 units. (4 studio hours)

***318. World Dance (1-3)**
Theory and technique of various world forms. (2 studio hours per unit.)

319. Dance Laboratory (1-3)
Participation in dance technique projects. Consent of instructor. May be repeated for a maximum of 8 units. Letter grade only (A-F). (2 studio hours per unit.)

320. Dance Composition II (3)
Prerequisite: DANC 220. Development of theme and style in small group studies. Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)

321. Directed Choreography (1-3)
Prerequisites: DANC 120, 220 or permission of Instructor. Independent choreographic projects finalized in a performance ven-

ue under supervision of a faculty member. Letter grade only (A-F). Repeatable to a maximum of 6 units. (2-6 studio hours)

331. Music for Dance (3)
Prerequisite: DANC 131 and DANC 220. Theoretical and practical analyses of music form and style as appropriate for use in dance classes and performance. Includes a brief survey of historical periods and the development of music repertoire for dance. Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)

350. Dance Notation I (3)
Prerequisite: DANC 131. Theory and practice of notating movement through Labanotation. Letter grade only (A-F).

360./560. Prevention and Care of Dance Injuries (3)
Prerequisite: DANC 260 or permission of instructor. The application of principles of anatomy and kinesiology, integrated with principles of training, for the purpose of fostering a scientific understanding of common dance injuries and their prevention. This course will also focus on the development of the primary components of health-related physical fitness: muscular strength, muscular endurance, flexibility, cardiovascular fitness and body composition in an effort to reduce injury risk and facilitate healthy dance training while attempting to maximize each individual dancer's physiological potential. Letter grade only (A-F).

362. Pilates II (2)
Prerequisites: DANC 262 or consent of instructor. Intermediate level Pilates-based conditioning program which employs a series of exercises designed to enhance dance performance and prevent injury, utilizing apparatus based on the designs of Joseph Pilates, exercise balls, free weights and the body for resistance. Letter grade only (A-F). (4 studio hours)

373I. Nonverbal Communication: Interaction of Mind and Body (3)
Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration course(s), and upper division status. 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. Same course as ED P 373I.

380A,B. Dance Performance (1,1)
Prerequisite: Open to Dance Majors and Minors only. 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 for a total of eight units. (3 or more studio hours)

381A,B. Dance Production Technical (1,1)
Technical production participation in Dance Department sponsored productions. A combination of 381A,B and 481A,B may be repeated for a total of eight units. (3 or more studio hours)

398. Fieldwork in Dance Elementary (1-3)
Prerequisite: DANC 475. Supervised teaching experience in dance in an off-campus setting. Practical experience working with students in kindergarten through 6th grade. Credit/No Credit grading only. May be repeated to a maximum of six units.

399. Fieldwork in Dance Secondary (1-3)
Prerequisite: DANC 470. Supervised teaching experience in dance in an off-campus setting. Practical experience working with students in grades 7 through 12 or community college. Credit/No Credit grading only. May be repeated for a maximum of six units.

412. Modern Technique IV (3)
Prerequisites: Dance Major or Minor, and placement screening. Advanced skill in modern dance technique. Letter grade only (A-F). Course may be repeated to a maximum of 12 units. (6 studio hours)

414. Ballet Technique IV (2)
Prerequisites: Dance Major or Minor, and placement screening. Advanced skills in the technique of ballet. Course may be repeated to a maximum of 8 units. (4 studio hours)

***416. Ballet Variations (2)**

Prerequisites: DANC 254. Covers modern and classical variations and how to "score" the work. Teaches the dancer how to look at the work and appropriately interpret its style, technique, musicality, focus, special content and phrasing. Stresses the interpretation and analysis of what the variation means artistically. Helps students approach all work with creative visualization. Letter grade only (A-F). (4 studio hours)

420. Advanced Composition (3)

Prerequisite: DANC 320 or consent of instructor. Approaches to the development of choreographic materials of extended structure and content. Letter grade only (A-F). (Lecture 1 hour, 4 studio hours)

***422. Improvisation II (1-3)**

Prerequisites: DANC 220. Development of the individual performer's improvisational skills, exploration of a wide range of subject matter and styles, study of techniques of structuring improvisations. May be repeated for a maximum of 6 units. Letter grade only (A-F). (2-6 studio hours)

426. Intermediate/Advanced Ballet Pointe (1)

Prerequisite: DANC 214 or placement screening. Intermediate skill development in ballet pointe technique. May be repeated for a maximum of 4 units. Letter grade only (A-F). (2 studio hours)

435I. Dance in Film (3)

Prerequisites: Completion of GE Foundation requirements and one or more Exploration course(s), and upper division status. Examination of the relationship between dance and film; study of historical and theoretical connections placed in both aesthetic and cultural contexts.

442A. History of Dance to 1900 (3)

Development of dance from Aboriginal to 20th Century. Letter grade only (A-F).

442B. Twentieth Century Dance History (3)

Development of Ballet and Modern dance in the 20th Century. Letter grade only (A-F).

445./545. 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 studio hours)

470. Dance Methodology (3)

Prerequisites: DANC 312, or consent of instructor. Methods of teaching dance in order to prepare for teaching in studios, recreation departments, companies, institutions, public schools, colleges and universities. Letter grade only (A-F). (Lecture 2 hours, 2 studio hours)

475. Dance for Children (3)

Prerequisites: DANC 120, 312, or consent of instructor. Practical experience in teaching dance to elementary school children employing improvisational approaches to basic elements of dance as integrated into the total elementary curriculum; as a basic form of communications, as an instrument for the development of individual creativity, as identification of dance as an art form. Letter grade only (A-F).

480A,B. Dance Performance (1,1)

Prerequisite: Open to Dance Majors and Minors only. 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 for a total of 8 units. (3 or more studio hours)

481A,B. Dance Production – Technical (1,1)

Technical participation in Dance Department-sponsored productions. A combination of 381A,B and 4381A,B may be repeated for a total of 8 units. (3 or more studio hours)

***485. Contemporary Dance and the Fine Arts (3)**

Prerequisites: DANC 331 or consent of instructor. Advanced theory and practice relating contemporary dance to the fine arts. Letter grade only (A-F).

488. Organization of Dance Production (3)

Prerequisite or Corequisite: DANC 312. Analysis and practice in the production elements of dance concerts. Course is coordinated with a department concert. Letter grade only (A-F).

489. Special Topics in Dance (1-3)

Prerequisite: Consent of instructor. Topics of current interest in the field of dance selected for special presentation and development. Topics will be announced in the *Schedule of Classes*. May be repeated for a total of 6 units. (2-6 studio hours)

490. Special 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 for credit to a total of 12 units provided it is a different topic, or with consent of department chair. Topics will be announced in the *Schedule of Classes*. (2-6 studio hours)

***491A. Design for Dance Lighting (3)**

Prerequisites: Upper division status or permission 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). (6 studio hours)

***491B. Design for Dance Costuming (3)**

Prerequisites: Upper division status or permission of instructor. Designing and constructing costumes for dance. Letter grade only (A-F). (6 studio hours)

493. Computers for Dance (3)

Prerequisites: Dance major or minor. Theory and practice in the basic techniques of computer usage in the art form of dance. Letter grade only (A-F). Course may be repeated for a maximum of 6 units.

495. Repertory (1-3)

Prerequisite: Audition. Students learn and perform works of distinguished choreographers. Leads to concert performance. May be repeated for credit to a total of 18 units provided it is with a different instructor each time. (2-6 studio hours)

499. Directed Studies in Dance (1-3)

Prerequisite: Consent of Instructor. Independent projects and research of advanced nature in any area of dance.

Graduate Level

505. Seminar in Dance Methodology (3)

Prerequisite: Acceptance into the MA or MFA program or consent of advisor. Discussion specific to the teaching of dance in preparation for teaching in secondary and post-secondary education. Letter grade only (A-F).

510A,B,C,D. Technique Laboratory (1-3, 1-3, 1-3, 1-3)

MFA Choreography option students are required to take a technique class each semester. By registering for DANC 510, each will be assigned to an appropriate level technique class. Additional work will be required as appropriate to a graduate level course. May be repeated for a maximum of 6 units. (2-6 studio hours)

512. Advanced Modern Technique (3)

Prerequisites: Placement screening. A course for graduate dance majors in the advanced skill of modern dance techniques. Letter grade only (A-F). Course may be repeated for a maximum of 18 units. (6 studio hours)

514. Advanced Ballet Technique (2)

Graduate level skills in ballet technique. Letter grade only (A-F). Course may be repeated for a maximum of 12 units. (4 studio hours)

518. World Dance II (1-3)

For graduate dance majors to learn the techniques and styles of ethnic dance forms. A dancer from the culture will teach the class. A different culture will be studied each semester. Letter grade only (A-F). Course may be repeated for a maximum of 8 units. (2 studio hours per unit.)

520A. Choreography A (2)

A course in advanced approaches to the development of choreographic materials and techniques. The class will include an introduction of video and other multi-media techniques as choreographic tools. Letter grade only (A-F). (4 studio hours)

520B. Choreography B (2)

Prerequisite: DANC 520A. Course in advanced study of choreographic methods with an emphasis on the use of costumes, sets/props, and lighting for dance. Letter grade only (A-F). (4 studio hours)

520C. Choreography C (2)

Prerequisite: DANC 520B. A course in advanced methods and techniques of choreography concentrating on the individual style of the students' work and in depth study in developing a full-length dance work. Class will involve choreographing works of substantial length using small and large numbers of dancers. Instruction will emphasize consistency in choreographic style and content. Letter grade only (A-F). (4 studio hours)

520D. Choreography D (2)

Prerequisite: DANC 520C. A course in the advanced study of choreographic methods, with an emphasis on the use of costuming, lighting, music/sound and other production techniques in preparation for performance. The course involves presenting finished full-length costumed dance works, lighting designs for the work or works and learning the methods of directing dancers during the production run of a concert. Letter grade only (A-F). (4 studio hours)

520E. Choreography E (2)

Prerequisites: DANC 520D or consent of instructor. Methods and practice of developing choreography utilizing an integration of related art forms as the basis for compositional exploration. Letter grade only (A-F). (4 studio hours)

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).

531. Music for Dance II (1-3)

Prerequisite: DANC 331 or equivalent. This course is to provide dance students an opportunity for advanced, in-depth study of musical form and style as it applies to dance. Letter grade only (A-F).

545./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 studio hours)

560./360. Prevention and Care of Dance Injuries (3)

Prerequisite: DANC 260 or permission of instructor. The application of principles of anatomy and kinesiology, integrated with principles of training, for the purpose of fostering a scientific understanding of common dance injuries and their prevention. This course will also focus on the development of the primary components of health-related physical fitness: muscular strength, muscular endurance, flexibility, cardiovascular fitness and body composition in an effort to reduce injury risk and facilitate healthy dance training while attempting to maximize each individual dancer's physiological potential. Letter grade only (A-F).

565. Dance Science as Related to Teaching Technique (3)

Prerequisite: DANC 260 and 505, or permission of instructor. A regional presentation of key kinesiological principles will be utilized to develop an understanding of mechanics, strength, and flexibility exercises, which can then be applied to enhance dance technique and prevent injuries. Scientific principles drawn from exercise physiology will also be combined with anatomical principles to evaluate and better design dance technique classes. Letter grade only (A-F).

580A,B. Dance Performance (1)

Prerequisite: Audition. Participation as a performer and/or choreographer in Dance Department approved University-sponsored production. Letter grade only (A-F). Course may be repeated for a maximum of 2 units. (3 or more studio hours)

585A,B. Dance Performance (1)

Prerequisite: Audition. Participation as a performer and/or choreographer in Dance Department approved University-sponsored

production. Letter grade only (A-F). Course may be repeated for a maximum of 2 units. (3 or more studio hours)

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. Special Topics (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). Course may be repeated for a maximum of 6 units with different topics.

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 studio hours)

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 studio hours)

592. Special Topics (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). Course may be repeated for a maximum of 6 units with different topics. (2-6 studio hours)

595. Repertory (1-3)

Prerequisite: Audition. A course 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. Instruction, rehearsal and performance gives the dance student a broader knowledge of the various methods used by professional choreographers and the experience of performing those works on stage before an audience with full theatrical production including music, sound, costumes and sets. Letter grade only (A-F). Course may be repeated for a maximum of 6 units. (2-6 studio hours)

597. Criticism and Analysis of Dance (2)

Students will analyze choreography and write critiques in order to learn how to look at and evaluate dance works. Letter grade only (A-F).

599. Directed Studies (1-3)

Prerequisite: Consent of instructor. Individual research or project under the guidance of a faculty member. May be repeated for a maximum of six units. Letter grade only (A-F).

605. Seminar in Dance (1-3)

Prerequisites: Acceptance into the MA or MFA in Dance. The course 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). Course may be repeated for a maximum of 9 units with different topics.

698. Thesis/Project (1-6)

Prerequisite: Advancement to candidacy. Planning, preparation, and completion of a thesis/project in dance for the M.A. degree. May be repeated for a maximum of 6 units. Letter grade only (A-F).

699. Thesis/Project (1-6)

Prerequisite: Advancement to Candidacy. Planning, preparation, and completion of a thesis/project in dance. Traditional grading only. Course may be repeated for a maximum of 6 units.

DESIGN

College of the Arts

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Administrative Coordinator
Carolyn H. Sandusky

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The Department of Design was established to provide an administrative and academic framework for professional design training in the fields of Industrial Design, Interior Architectural Design, and Display/Exhibition Design. The degree programs that may be pursued are the Bachelor of Fine Arts, the Master of Arts, the Master of Fine Arts, and the Bachelor of Science, offered in the Industrial Design curriculum.

The faculty of Design believe that an appropriate education for the professional designer must include a comprehensive body of technical knowledge. Such knowledge should include historical sources, tools, techniques, and materials; a methodology for encouraging the creative process; and the attainment of the requisite level of skill to express visual ideas with clarity. While being fully equipped to meet the objectives of the marketplace, today's designer must also achieve sufficient educational breadth to adapt successfully to the varying demands imposed on design work by economic, social, and psychological factors.

The academic programs of the Department of Design have been accredited by the National Association of Schools of Art and Design (National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700). Student demand for these programs is high. Requirements for admission and degree requirements are given below.

Bachelor of Fine Arts in Art

The Bachelor of Fine Arts in Art degree is offered as preparation for the student who will eventually seek the Master's degree or a position as a professional designer. The BFA program is a rigorous and competitive one. One hundred and thirty-two semester units are required for the degree, including 81 units for the major and 51 for General Education. Portfolio review is required for admission to the professional BFA program. Portfolios are reviewed in the spring semester for fall admission to junior standing and the upper division program.

Option in Interior Design (code ART_BF09) (132 units)

Requirements

Lower Division: AH 115B, 115C; DESN 120A, 120B, 132A, 132B, 141, 142, 151, 232, 241, 242, 243, 244, 245, 246.

Upper Division: DESN 341A, 341B, 342, 343, 346, 367, 369, 440, 441A, 441B; eight units of design/art electives, outside of Interior Design approved by the major adviser. Approved lower and upper division electives to total 132 units.

Students must achieve "C" or better in each required design course to progress in the sequence of study.

Bachelor of Science in Industrial Design (code DESNBS01) (132 units)

This degree program is concerned with the relationship between technology and the visual arts. It includes background courses in engineering and sciences. Students must achieve "C" or better in each required design course to progress in the sequence of study. A grade of "B" or better in DESN 280 and permission of instructor is required in order to enroll in DESN 331A.

Requirements

Lower Division: AH 115B, 115C; DESN 120A, 120B, 132A, 132B, 150, 151, 154, 156, 232, 254, 256, 280. A grade of "B" or better in DESN 280 and permission of instructor is required in order to enroll in DESN 331A.

Upper Division: DESN 331A, 331B, 333A, 333B, 368, 431A, 431B; twelve units of design/art electives, nine units of which must be outside of Industrial Design approved by the major adviser. Approved lower and upper division electives to total 132 units.

Students must achieve "C" or better in each required design course to progress in the sequence of study.

Master of Arts in Art (code ART_MAO1)

The Design Department Master of Arts in Art program provides professional specializations within the degree: Industrial Design, Interior Design, and Display/Exhibition Design.

Prerequisites

1. A bachelor's degree from an accredited institution with a minimum of 24 upper division units in design/art comparable to those required of a major in Design at this University;

2. Completion of 16 units minimum of upper division course work in the area of specialization;
3. Completion of 12 units of design/ art history, six units of which must be upper division;
4. Successful completion of the Writing Proficiency Examination;
5. Presentation, to the student's specialization faculty, of a portfolio of representative studio work with emphasis in the area of specialization. Reviews are completed by the first week in October for the following spring semester, by the first week in March for the following fall semester;
6. A GPA of 3.0 or better in upper division design/art course work. Students who do not meet the minimum 3.0 GPA within the required 24 units as an undergraduate may count units taken as a post-baccalaureate student to meet this GPA. Course work taken as a graduate to validate undergraduate preparation may not be used to satisfy any requirement in the student's MA program.

All prerequisites must be fulfilled before a student can become classified in a graduate degree program.

Advancement to Candidacy Requirements

1. Classified graduate standing. Completion of all prerequisites;
2. A graduate program approved by the student's committee, the Graduate Advisor, the Design Department Chairman, and the Dean of the College of the Arts;
3. A GPA of 3.0 or higher in all work undertaken for the program;
4. The removal of any Incompletes;
5. Successful completion of the Advancement Review;

Requirements

Completion of all requirements established by the student's graduate advisory committee, including:

1. A minimum of 33 units of approved upper division and graduate-level courses; a minimum of 15 units at the 500- and 600-level; a minimum of 20 units in the specialization;
2. A studio thesis project. All studio projects must be formally exhibited (DESN 692) with a written Artists Statement.

Master of Fine Arts in Art (code ART_MF01)

The Design Department Master of Fine Arts degree program provides specializations in: interior design and display/exhibition design.

Prerequisites

1. A bachelor's degree from an accredited institution with a minimum of 24 units of upper division design course work comparable to those required for the BFA in Design at this University;
2. Completion of a minimum of 18 units of upper division course work in the area of specialization for the proposed MFA;
3. Completion of a minimum of 12 units of design/art history, six units of which must be upper division;
4. Successful completion of the Writing Proficiency Examination;

5. Presentation, to the student's specialization faculty, of a portfolio of representative studio work with emphasis in the area of specialization. Reviews are completed by the first week in October for the following spring semester, by the first week in March for the following fall semester. (See MA and MFA procedures, "Screening for Acceptance" for details);
6. A GPA of 3.0 or better in upper division design/art course work. Students who do not meet the minimum 3.0 GPA within the required 24 units as an undergraduate may count units taken as a post-baccalaureate student to meet this GPA. Course work taken as a graduate to validate undergraduate preparation may not be used to satisfy any requirement in the student's MA program.

All prerequisites must be fulfilled before a student can become classified in a graduate degree program.

Advancement to Candidacy Requirements

1. Classified Graduate standing. Completion of all prerequisites;
2. A graduate program approved by the student's committee, the Graduate Advisor, the Design Department Chairman, and the Dean of the College of the Arts;
3. A GPA of 3.0 or higher in all work undertaken for the program;
4. The removal of any Incompletes;
5. Successful completion of the Advancement Review;

Requirements

A minimum of 60 units of approved coursework, at least 60 percent of which must be at the 500- and 600-levels, including at least:

1. Thirty-six 36 units in the area of specialization. Thirty of these units must be in the 500- and 600-levels and must include 690A, 690B, 692, and 699;
2. Six units of approved upper-division or graduate coursework outside of design;
3. A comprehensive review, administered by the student's graduate advisory committee, after the completion of 21 units of studio coursework. This review is to determine whether the candidate will continue in the MFA program;
4. A minimum of 6 units of approved upper division or graduate design/ art history beyond that required as prerequisite work;
5. Twelve units of upper division or graduate level elective coursework in design;
6. A studio project (DESN 699), exhibited and described in a studio thesis (DESN 692).

MFA Transfer and Residence Policy

1. Transfer credit allowable on the MFA may not exceed 24 units;
2. MFA candidates must complete a minimum of 18 specialized units with graduate numbers in residence;
3. All transferred credit used in the MFA must be determined by the student's graduate committee and approved by the department Graduate Advisor;
4. The CSULB Master of Arts degree may be counted for a maximum of 24 units (18 in specialization) toward the MFA degree.

Courses (DESN)

Lower Division

120A-B. Fundamentals of Design (3-3)

Prerequisites: for 120A: none; for 120B: 120A. A systematic approach to the process of designing two and three-dimensional objects including color theory, surface and volume investigation. (6 hours laboratory.) Letter grade only (A-F).

132A-B. Perspective and Rendering Systems (3-3)

Prerequisites: for 132A: none; for 132B: 132A. Fundamentals of drawing, perspective and rendering techniques used in the design disciplines for accurate and dramatic presentations. (6 hours laboratory.) Letter grade only (A-F).

141. Interior/Architectural Drafting (3)

Architectural drafting and graphic techniques used in light framing and commercial construction with emphasis on interiors. (6 hours laboratory.) Letter grade only (A-F).

142. Beginning Space Planning (3)

Prerequisites: DESN 141. Functional, human, and aesthetic factors of space planning for interiors. (Laboratory 6 hours.) Letter grade only (A-F).

150. Design Drafting (3)

Introduction to manual and computer aided drafting. Includes descriptive geometry; mechanism sketching; orthographic and isometric drafting; blueprint reading, printing and plotting. (6 hours laboratory) Letter grade only (A-F).

151. Industrial Design Materials and Tools (2)

Hands-on experience with wood, metal and plastic materials and the technical tools for creating form. Includes appropriate safety instruction for the use of power equipment. (4 hours laboratory) Letter grade only (A-F).

154. Modeling and Prototyping Techniques (2)

Prerequisites: DESN 150, 151. Materials, processes and techniques for creating mock-ups, models and prototypes used by industrial designers. (4 hours laboratory). Letter grade only (A-F).

156. 3D Computer-Aided Design (3)

Prerequisites: DESN 150. Computer aided modeling strategies and techniques for depicting three-dimensional surfaces and solids. (6 hours laboratory) Letter grade only (A-F).

232. Visualization Techniques (3)

Prerequisites: DESN 120B, 132B, consent of instructor. Introduction to technical drawing and visual presentation of concepts using communication techniques employed by professional design studios. (6 hours laboratory) Letter grade only (A-F). Course may be repeated to a maximum of 9 units.

241. Design Drawing and Processes (3)

Prerequisites: DESN 120B, 132B or permission of instructor. Introduction to Design Drawing and Design Processes. Sketching and solving limited scale interior and architectural problems. (Laboratory 6 hours.) Letter grade only (A-F).

242. Interior/Architectural Model Building (3)

Prerequisites: DESN 120B, 132B, 142. Building of interior/architectural models for construction, design analysis and presentation. (Laboratory 6 hours.) Letter grade only (A-F).

243. Materials of Interiors (3)

Prerequisites: DESN 120B, 132B, or permission of instructor. Materials, processes and resources as they relate to interior architecture. Examination of technology and application through lecture, demonstration and field trips.

244. Lighting Design for Interior Architecture (3)

Prerequisites: DESN 120B, 132B, 142. Use of conceptual and practical design problems. The nature and properties of light and color are studied. (Laboratory 6 hours.) Letter grade only (A-F).

245. Building Systems for Interior Architecture (3)

Prerequisites: DESN 142. Survey of design implications of typical building systems (structural, mechanical, plumbing, electrical, acoustical, energy conservation) as influences on interior architectural design. Letter grade only (A-F).

246. Computer-aided Drafting (3)

Prerequisite: DESN 141. Principles and methods of computer graphic applications utilizing AutoCad. Computer drafting of commercial and residential projects. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

254. Production Materials and Technical Processes (3)

Prerequisites: DESN 150, 151, 154, 156. The study of production processes and industrial materials utilized in the manufacturing of products. Includes introduction to rapid prototyping. (6 hours laboratory) Letter grade only (A-F).

256. 2D Computer-Aided Design (2)

Prerequisites: DESN 150. Computer aided drawing, rendering, and image manipulation for presentation authoring. Includes lighting and animation techniques. (4 hours laboratory) Letter grade only (A-F).

280. Industrial Design Processes (3)

Prerequisites: DESN 120B, 132B, 156, 232, 254, 256. Introductory course in the design processes utilized by industrial designers for product development. (6 hours laboratory) Letter grade only (A-F).

290. Design Methods and Practice (3)

Prerequisites: DESN 150, 151. Survey of design office procedures, methods and professional practices. Includes creative problem solving, market analysis and management.. (6 hours laboratory) Letter grade only (A-F).

Upper Division

*331A-B. Industrial Design (3-3)

Prerequisites: for DESN 331A: Completion of DESN 280 with a B or better and consent of instructor; for DESN 331B: DESN 331A. Planning and design of useful products for industrial production. (6 hours laboratory.)

*333A-B. Industrial Design Methodology (3-3)

Prerequisites: for 333A: Permission of instructor; for 333B: DESN 333A or permission of instructor. Examination of methods and techniques in design problem solving. (6 hours laboratory.)

*341A-B. Interior Design (3-3)

Prerequisites: for 341A: DESN 232, 243; ART 115B, 115C; for 341B: DESN 341A. Design of interior environments emphasizing interrelationships between interior space, architectural form and human factors in design. (6 hours laboratory.)

342. Interior/Architectural Presentations (3)

Prerequisites: DESN 232, 241, and Junior standing in the professional program. Exploring and using various techniques and methods of visually and verbally presenting design concepts, ideas, and finished projects. (Laboratory 6 hours.) Letter grade only (A-F).

343. Advanced Drafting and Detailing (3)

Prerequisites: DESN 143, 242, 245, and Junior standing in the professional program. Advanced drafting and detailing skills of architectural interior design related to light frame and other construction processes. (Laboratory 6 hours.) Letter grade only (A-F).

*344A-B. Display and Exhibition Design (3-3)

Prerequisites: ART 115B, 115C; DESN 120B, 232 or consent of instructor. Use of materials, processes, and design concepts in the planning and preparation of displays and exhibits. (6 hours lab.)

346. Computer-Aided Design – 3D Modeling (3)

Prerequisites: DESN 132B, 242, 246. Computer-aided drawing, rendering, 3D drawing and solid modeling. Includes lighting and animation techniques for spatial/architectural modeling and design. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

351A. Process of Architectural/Interior Lighting Design (3)

Prerequisites: DESN 232, 142, 244 or 254; or permission of instructor. Exploration of processes used to conceptualize, present and develop architectural lighting designs. Letter grade only (A-F). (Laboratory)

351B. Applications of Architectural/Interior Lighting Design (3)

Prerequisites: DESN 246, 351A, or 256. Exploration of the major categories of applications (e.g., residential, office, etc.) and the specific principles, conventions and codes that apply to them as well as the basic use of lighting equipment common to these applications. Letter grade only (A-F).

367. History and Theory of Architecture (3)

Prerequisite: Completion of GE Foundation requirements. Evolution of architecture relative to the human need to shape environment in accordance with governing concerns of specific periods in history. Not open to students with credit in ART 417.

368. History and Theory of Design (3)

Prerequisite: Completion of GE Foundation requirements. Development of design as an independent creative activity including a consideration of both pre-technological and technological culture. Not open to students with credit in ART 418.

369. History of Furniture and Decorative Arts (3)

Study of the history of furniture, finish materials, and accessories. (Lecture-discussion 3 hrs.) Letter grade only (A-F).

370. Design in Contemporary Society (3)

Prerequisite: Completion of GE Foundation requirements. Discover the principles of design by examining the human relationship to the built environment through a sequence of scales: from the organization of cities, to public architecture and housing, the design of furniture and products. Emphasis will be on experiencing design through lecture, lab, field observations and projects. Letter grade only (A-F).

***431A-B. Advanced Industrial Design (4-4)**

Prerequisites: DESN 331B, PHYS 100AB or consent of instructor. Advanced planning and design of projects in the area of mass produced objects, packaging, traffic, transportation, mechanical design and shelter. (8 hours laboratory.)

***432. Advanced Rapid Visualization (3)**

Prerequisites: DESN 232 or consent of instructor. Advanced idea generation and visualization for designers. (6 hours laboratory) Letter grade only (A-F).

***435A. Furniture Design (3)**

Prerequisites: DESN 232, 331A, 341A, or permission of instructor. Design of public and private interior furnishings with an in depth study of the potentials of contemporary production methods and materials. (6 hours laboratory.)

435B. Advanced Furniture Design (3)

Prerequisites: DESN 435A, or permission of instructor. Continuation of DESN 435A. Projects focus upon research and the impact of human factors on the design of furniture. Letter grade only (A-F).

440. Professional Practices for Interior Architecture (3)

Prerequisites: Permission of instructor. Examination of professional practices for commercial (corporate) institutional/public interior architectural design. Letter grade only (A-F).

***441A-B. Advanced Interior Design (4-4)**

Prerequisites: DESN 341B, 343 or consent of instructor. Advanced interior design and space planning problems emphasizing relationships between the built environment and human factors in design. (6 hours laboratory.)

***442G. Internship in Industrial Design (3)**

Prerequisite: Consent of instructor. Student internship experience in selected industrial design offices. Opportunity to work under supervision of industrial designers in the field to expand student understanding of the complexities, discipline and challenges in the practice of industrial design. May be repeated once for credit. (6 hours laboratory.)

***442H. Internship in Interior Design (3)**

Prerequisite: Consent of instructor. Student internship experience in selected interior design offices. An opportunity to work under supervision of interior designers and architects in the field to expand student understanding of the complexities, discipline and challenges in the practice of interior design. Limited to six units in one semester and a total of nine units. (6 hours laboratory.)

***490. Special Topics in Design (1-3)**

Prerequisite: Consent of instructor. Special topics of current interest in design will be selected for intensive study. May be repeated with different topics to a maximum of 12 units. Topics will be announced in the *Schedule of Classes*. (2-6 hours lab.)

***495. Field Studies in Design (1-6)**

An opportunity to study design movements, objects, theories, techniques at appropriate off-campus locations. Up to six units of cumulative credit may be earned in DESN 495.

***499C. Special Studies in Display and Exhibition Design (3)**

Prerequisite: Consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in display and exhibition design. Limited to six units in one semester and a total of nine units. (6 hours laboratory.)

***499G. Special Studies in Industrial Design (3)**

Prerequisite: Consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in industrial design. Limited to six units in one semester and a total of nine units. (6 hrs laboratory.)

***499H. Special Studies in Interior Design (3)**

Prerequisite: Consent of instructor. Opportunity for extensive work with faculty supervision on individual problems in interior design. Limited to six units in one semester and a total of nine units. (6 hours laboratory.)

Graduate Level

590. Special Problems in Design (1-3)

Prerequisite: Consent of instructor. Special problems of current interest in design will be selected for intensive study. May be repeated with different topics to a maximum of 12 units. Topics will be announced in the *Schedule of Classes*. (2-6 hours laboratory.)

599. Studio Problems in Design (3)

Prerequisite: Consent of instructor. Advanced individual graduate projects, with faculty supervision, in an area of design specialization. Limited to six units in one semester and a total of 12 units in any one area. Areas will be designated by letter at the time of registration. (6 hours laboratory.)

C. Display and Exhibition

G. Industrial Design

H. Interior Design

690A. Seminar in Design (3)

Prerequisite: Consent of instructor. Selected reading and writing concerning topics relevant to student's specific disciplines in design with an opportunity for interdisciplinary discussion.

690B. Seminar in Design (3)

Prerequisite: Consent of instructor. Professional preparation for designers stressing practical concerns as well as current trends in design practices, theory and criticism.

692. Public Exhibition (2-3)

Prerequisite: Consent of instructor. Planning, preparation and administration of a public exhibition of creative work related to the design field. Two units only for all M.A. candidates. Three units only for all M.F.A. candidates. The course will result in a public exhibition by each M.A. and M.F.A. candidate. (6 hours or more laboratory.)

694. Directed Studies Studio (1-3)

Prerequisite: Consent of instructor. Independent studies in creative studio.

695. Field Problems in Design (1-6)

Opportunity to study design movements, objects, theories, techniques or literature at appropriate off-campus locations. Up to six units of cumulative credit may be earned in DESN 695.

697. Directed Studies (1-3)

Prerequisite: Consent of instructor. Independent studies in technical and historical aspects of design.

698. Thesis or Project (1-6)

Prerequisite: Advancement to candidacy. Planning, preparation and completion of a thesis or project. Required of all Master of Arts candidates.

699. Thesis or Project (1-6)

Prerequisite: Advancement to candidacy. Planning, preparation and completion of thesis or project. Required of all M.F.A. candidates and all candidates seeking a second M.A.

ECONOMICS

College of Liberal Arts

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

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 allocation of scarce resources. When applied to individuals, economics attempts to understand the behavior of individuals as consumers, managers and government officials. When applied to society as a whole, economics attempts to explain and predict the economy's total output, level of employment and price level.

Bachelor of Arts in Economics (code ECONBA01) (120 units)

The bachelor of arts degree with a major in economics prepares students for a variety of careers in business and government. The degree also provides the foundation for teaching in elementary and secondary schools and for more advanced study in economics, business, law, and other related fields.

Requirements

Lower Division: ECON 100, 101, ACCT 201, and either Math 115 or 122. Students with upper division status declaring Economics as a major may substitute ECON 300 for ECON 100 and 101.

Upper Division: 310, 311, 380, and 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, 309I, 495 and 499.

The major also requires a minimum of two courses outside of Economics (totaling at least six units). Students may take any upper division courses from the departments listed below, or any of the following lower division courses: ANTH 120, GEOG 100, HIST 131, 132; MATH 114, 117, 123, 224; POSC 201; PSY 100; S W 220; SOC 100.

Option in Mathematical Economics and Economic Theory (code ECONBA02) (120 units)

The Bachelor of Arts in Economics with an option in Mathematical Economics and Economic Theory provides students with the tools of economic analysis with an emphasis on economic theory, economic optimization and statistics. This option is recommended for students interested in graduate study in economics.

Requirements

Lower Division: ECON 100 and 101, MATH 122, 123, 224 and 247. Students with upper-division status declaring the option may substitute ECON 300 for ECON 100 and 101 with departmental consent.

Upper Division:

Economic Theory: ECON 310 and 311.

Statistics: ECON 380 and 481, or MATH 380 and 381.

Advanced Theory and Quantitative Methods: At least one of the following courses: ECON 403, 410H, 411H, 420, 433, or 486.

Elective Courses: At least four additional upper-division courses in economics of which at least one must be taken at the 400 level. Students may take one course from the following in meeting the elective requirement: MATH 364A, 480, 483 or 485. ECON 300, 309I, 380, 481, 495 and 499 may not be taken to meet the elective requirement.

Bachelor of Arts in Business Economics (code ECONBA03) (120 units)

The bachelor of arts degree with a major in business economics provides students with the tools of economic analysis and their application in a business environment.

The business economics major prepares students for careers in the private or public sector. Students completing this major will have a solid foundation in microeconomic theory, macroeconomic theory, and quantitative methods.

They will have also completed courses in international economics and business administration. The bachelors degree in business economics is excellent preparation for graduate study in economics, business administration, public administration, and law.

Requirements

Lower Division Requirements: ECON 100, 101, ACCT 201, and either MATH 115 or MATH 122. Students with upper division status declaring economics as a major may substitute ECON 300 for ECON 100 and 101.

Upper Division Requirements: ECON 310, 311, and 380, and six additional upper division courses of which at least two must be at the 400 level. At least three courses must be selected from Group A; at least one course must be selected from Group B; and, at least one course from Group C. The remaining elective may be selected from Group A, B, or C, or any other upper division course in economics except ECON 300, 309I, 495, and 499.

Group A: Business Economics and Quantitative Economics (select at least three courses): ECON 320, 333, 355, 403, 420, 422, 430, 432, 433, 434, 441, 463, 481, 486.

Group B. International Economics (select at least one course): ECON 361I, 365, 368, 369, 370, 372, 465, 472.

Group C. Business Administration (select at least one course): ACCT 310, CBA 300, FIN 300, FIN 320, HRM 360, MGMT 300, MKTG 300.

Minor in Economics (code ECONUM01)

The Minor in Economics is available to any non-Economics or non-Business Economics major.

The economics minor is designed to provide students with a broad-based introduction to the methods of economic analysis. It is suitable for students planning careers in many fields including primary and secondary education, journalism, law, or government. A minimum of 24 units which must include:

Lower Division: ECON 100 and 101, and either MATH 115 or 122. Students with upper division status declaring the minor may substitute ECON 300 for ECON 100 and 101 with departmental consent.

Upper Division: ECON 310 and either ECON 311 or 320, and at least three additional upper division economics courses, of which at least one must be at the 400 level. The following courses may not be taken as upper division electives in economics: ECON 300, 309I, 495, and 499

Minor in Business Economics (code ECONUM02)

The Minor in Business Economics is available to any non-Economics or non-Business Economics major.

The minor in business economics is equally suitable for students pursuing baccalaureate degrees in non-business and business fields. The minor provides students with a strong concentration in the techniques of economic analysis most closely related to business decision-making. A minimum of 24 units which must include:

Lower Division: ECON 100 and 101, and one of the following: ACCT 201, MATH 115 or 122. Students with upper division status declaring the minor may substitute ECON 300 for ECON 100 and 101.

Upper Division: ECON 310 or 333, 311 or 320. The remaining 9 units (3 courses) may be selected from the upper division courses listed immediately above or any of the following courses: IS 310 or ECON 380, 372, 420, 422, 430, 432, 433, 434, 441, 462, 472.

Minor in International Economics (code ECONUM03)

The Minor in International Economics is available to any non-Economics or non-Business Economics major.

The minor in international economics provides students with an introduction to the techniques of economic analysis and the application of those techniques to issues in the world economy. Students will learn about the economic history and institutions of other countries, issues associated with the economic growth of less developed countries, and international trade and finance.

The minor is suitable for students from all majors planning careers in a wide variety of fields including business, government, journalism and education. A minimum of 24 units is required and must include:

Lower Division: ECON 100 and 101, and either MATH 115 or 122. Students with upper division status declaring the minor may substitute ECON 300 for ECON 100 and 101.

Upper Division: ECON 310 or 333 and ECON 311 or 320, and any three of the following courses: ECON 361I, 365, 368, 369, 370, 372, 465, or 472.

Master of Arts in Economics (code ECONMA01)

The master of arts degree in economics is designed to provide academic preparation for positions in industry, government, consulting agencies and teaching. The emphasis is on the immediate application of more advanced principles of analysis to business, management and government. Candidates are responsible for observing the general requirements stated in the *Catalog* as well as requirements specified by the Economics Department. Detailed information on requirements may be obtained from the department graduate advisor.

A limited number of graduate assistantships are available to qualified students.

Prerequisites

1. A bachelor's degree with a major in economics; or
2. A bachelor's degree with 24 units of upper division courses comparable to those required of a major in economics at this University. (Deficiencies will be determined by the Economics Department.);

3. A minimum undergraduate GPA of 3.0 (B) in upper division economics courses. (A student who fails to meet this requirement may submit Graduate Record Examination scores on the verbal, quantitative and advanced economics sections, and petition the Economics Department for a waiver.);
4. Graduate students must consult with the graduate advisor for information concerning department procedures and for approval of their course of study before entering the master of arts program in economics.

Advancement to Candidacy

Satisfy the general requirements of the University for advancement to candidacy.

Requirements

1. Thirty units of upper division and graduate courses approved by the Economics Department (courses marked with an asterisk), of which 24 must be in economics with a minimum of 18 units in the 500 and/or 600 series. All students must develop three fields of concentration in economics, including economic theory (micro and macro economics);
2. Satisfactory completion of ECON 503, 510, 511, 581, and 586;
3. A comprehensive examination in economic theory and successful completion of course work in two elective fields of concentration with grades of "B" or better in the appropriate 600-level courses; or completion of a comprehensive examination in economic theory, one elective field of concentration, and a thesis.

Master of Arts in Global Logistics (code ECONMA02)

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; transcripts of all undergraduate and graduate coursework; 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.

Advancement to Candidacy

Satisfy the general requirements of the University for advancement to candidacy.

Course Requirements

Completion of a minimum of 30 units beyond the bachelor's degree and graduate coursework as follows:

1. Core requirements (15 units): Satisfactory completion of ECON 500, 555, 556 and MGMT 500 and 541.

2. Satisfactory completion of at least one course in each of the following three emphases (9 units):
 - A. International Emphasis (ECON 572 or MGMT 543);
 - B. Transportation Planning and Policy Emphasis (CE 522, PPA 550, or PPA 541); and
 - C. Coordination, Negotiation and Conflict Resolution Emphasis (PPA 570 or HRM 654).
3. Satisfactory completion of a Concentration Emphasis by completing one additional course (3 units) in either:
 - A. International Emphasis (ECON 572 or MGMT 543);
 - B. Transportation Planning and Policy Emphasis (CE 522, PPA 550, or PPA 541); or
 - C. Coordination, Negotiation and Conflict Resolution Emphasis (PPA 570 or HRM 654).
4. Completion of ECON 655 (3 units).

Courses (ECON)

Lower Division

100. Principles of Macroeconomics (3)

Prerequisite or corequisite: One course from the Foundation curriculum. Money and banking, price changes, national income analysis, business cycles, economic growth, fiscal and monetary policy, international trade. Not open to students with credit in ECON 202. (CAN ECON 2)

101. Principles of Microeconomics (3)

Prerequisite or corequisite: MATH 103 or higher. Business organization, price theory, allocation of resources, distribution of income, public economy. Not open to students with credit in ECON 201. (CAN ECON 4)

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. Fundamentals of Economics (3)

Prerequisites: Completion of GE Foundation requirements. 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. Content generally same as ECON 100, 101, in condensed form. Not open to students with credit in ECON 100 or 101 except by consent of the Economics Department.

306I. Environmental Issues of the World Economy (3)

Prerequisites: Completion of the G.E. Foundation, Economics 101, 12 units of Exploration Courses from Category B, and upper-division standing. Interdisciplinary analysis of human impact on the atmosphere and biological diversity; consideration of policies to foster sustainable development with emphasis on the economic perspective; international political economy of negotiations to promote global cooperation in defense of our common environment.

309I. The Consumer in the Legal and Economic Environment (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses; upper-division standing. Combines the economic and ethical components of consumer issues with a critical analysis of relevant substantive aspects of consumer law. Incorporates an integrated coverage of the economic, legal 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. Same as FCS 309I and FIN 309I. (Lecture-Discussion 3 hours.)

310. Microeconomic Theory (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122. 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.

311. Macroeconomic Theory (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122. 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.

313. History of Economic Thought (3)

Prerequisites: ECON 100 and 101, or 300. Evolution of economics as a science. Doctrines of the different schools of economic thought. Study of the contributions of outstanding economists.

320. Money and Banking (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122. 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.

333. Managerial Economics (3)

Prerequisites: ECON 100, 101 and either MATH 115 or 122. Development of the tools of marginalist analysis and their application to managerial decisions and planning. Emphasis upon the calculation of solutions to operational problems of the business firm. Topics include demand analysis, production and cost, pricing, and output decisions under different market structures. Product and factor markets will be analyzed.

355. Law and Economics (3)

Prerequisites: ECON 100 and 101, or 300. 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.

360I. American Economic History (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Economic analysis of growth and welfare in the American economy from the beginnings of industrialization to the present, with emphasis upon the material and social factors affecting the transformation of our economy since the early nineteenth century.

361I. European Economic History (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Economic analysis of the principal features of the European economy from the Industrial Revolution to the present, with emphasis upon the problems of economic growth, capital formation and technological and demographic change in this era.

365. Economics of Modern China (3)

Prerequisites: Completion of GE Foundation requirements. Economic analysis of the Chinese economy in the modern era. After a brief historical background, the main focus of the course will be on the socialistic transformation of the economy (1949-1978). The post-1978 Total Economic Reform will be discussed as a contrast and to suggest some patterns for the future. Economic topics will be supplemented by attention to institutional, geographic, and demographic aspects.

368. Comparative Economic Systems (3)

Prerequisites: Completion of GE Foundation requirements. Handling of economic problems in differing national and ideological contexts. Combines an overall conceptual framework with the study of specific national approaches.

369. East/Central European Economies in Transition (3)

Prerequisites: Completion of GE Foundation requirements. This course focuses on the East/Central European countries of Hungary, East Germany, Poland and the Czech/Slovak Federal Republic. Topics to be covered include the economic experiences of these countries under Communism (central planning), the movement towards the market allocative process (decentralized choice), as

well as the development and influence of neighboring countries and institutions, including Romania, Yugoslavia, West Germany, the European Common Market, the former Soviet Union and the United States.

370. Pacific Rim Economy (3)

Prerequisites: Completion of GE Foundation requirements. Examines economic backgrounds and resource bases of the nations comprising the Pacific Rim, patterns of growth in trade among the Pacific Rim countries, flows of capital, activities of multinationals, interdependence of domestic and trade policies among the Pacific Rim countries, and future prospects of trade opportunities and possible constraints on expanded trade relations. Letter grade only (A-F).

372. International Economics (3)

Prerequisites: ECON 100 and 101, or 300. International trade and exchange rate theory. Types of trade control: tariffs, quotas, exchange manipulation, monopolies. Basic U.S. and European commercial policies since 1930. Not open to students with credit in ECON 471.

380. Economic Statistics (4)

Prerequisites: ECON 100 and 101 and either MATH 115 or 122. Use of descriptive and inferential statistical concepts for the analysis of economic data. Topics applied to economics include measures of central tendency and dispersion, probability theory, discrete and continuous probability distributions, hypothesis testing, regression and correlation analysis, economic time series and index numbers.

403./503. Mathematical Economics (3)

Prerequisites: ECON 310, 311 and consent of instructor. Applications of calculus, linear algebra and other mathematical tools in formulating and solving economic problems. Designed for exceptional undergraduate students who intend to pursue a graduate degree in economics. Letter grade only (A-F). (Not open to students with credit in 483./583.)

410H./510. Advanced Microeconomics (3)

Prerequisites: ECON 310, 311 and consent of the instructor. Applications of microeconomic theory. Detailed examination and analysis of particular markets and contemporary issues in light of economic theory. Specific emphasis on policy analysis for government and business decisions. This course is designed for exceptional undergraduate students who intend to pursue a graduate degree in economics. Letter grade only (A-F).

411H./511. Advanced Macroeconomics and Forecasting (3)

Prerequisites: ECON 310, 311 and consent of the instructor. Applications of macroeconomics, monetary and forecasting theory to operational management and planning decisions of government and business. This course is designed for exceptional undergraduate students who intend to pursue a graduate degree in economics. Letter grade only (A-F).

***420. Forecasting (3)**

Prerequisite: ECON 311 or 320. 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.

422./522. Macroeconomics for Management (3)

Prerequisites: ECON 311. Managerial applications of macroeconomic concepts. Emphasis on developing tools to analyze and predict aggregate economic activity and on promoting understanding of interrelationships and interdependencies of the macroeconomic environment for managerial decision making. Topics include: macroeconomic goals and efficient management; measurement and sources of economic data; modeling the macroeconomy; structural, or supply-side, changes affecting the macroeconomy; business cycle forecasts and the use of economic indicators; econometric forecasting, input-output analysis.

***430. Industrial Organization (3)**

Prerequisites: ECON 310 or 333. Exploration of corporate economics. The structure, behavior and performance of the relatively few large enterprises that originate more than two-thirds of the GDP of the U.S. An economic analysis of the arguments for and against 'big business.' Implications of separation of ownership and control,

Corporate social responsibility and the profit motive. The dilemma of size versus competition.

***432. Economics of Antitrust (3)**

Prerequisites: ECON 310 or 333. The attempt of government to produce superior economic practices and results by the legal imposition of purportedly more competitive market structures and behavior patterns on business firms. An economic analysis of the leading judicial decisions comprising the modern law of antitrust. A rigorous examination of the underlying presupposition of antitrust that competition is the best model for economic activity. The future of antitrust including a discussion of proposals for legislative overhaul, including repeal of existing antitrust law.

***433. Capital Theory and Financial Analysis (3)**

Prerequisites: ECON 310 or 333. Intertemporal choice and decision-making under uncertainty. Topics include multiperiod consumption, multiperiod production, capital budgeting and financial management.

***434. Economics of Regulation (3)**

Prerequisites: ECON 310 or 333. The attempt of government to intervene in the existing market sector for the purpose of producing more competitive and socially acceptable practices and results while retaining the efficiency of large-scale economic organization. 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. The changing concept of the public interest.

***441. Labor Economics (3)**

Prerequisite: ECON 310. 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.

***445. Economics of Health (3)**

Prerequisite: ECON 310. Analysis of health as an economic good. Health services as scarce resources. Use of tools of economic theory in study of special problems of health resources, markets, manpower shortages, non-profit enterprises, insurance programs and Medicare. Procedures stress individual studies and reports. Same course as HCA 451.

***450. Public Sector Economics (3)**

Prerequisites: ECON 310 and 311. The economic role of government. Analysis of the theory of public goods. Criteria for efficient allocation of resources between the private and the public sector. Possible responses of government externalities, such as environmental degradation. Emphasis on the allocation and distribution effects of government expenditures and taxation.

***462. Environmental Economics (3)**

Prerequisite: ECON 310. 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.

***463. Energy Economics (3)**

Prerequisite: ECON 310. 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.

***464. Natural Resource Economics (3)**

Prerequisite: ECON 310. 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.

465./565. Economic Development (3)

Prerequisites: ECON 310, 311 and consent of instructor. Economic and social factors underlying economic development. Analysis

of problems associated with economic growth of less developed countries. Evaluation of development policies.

472./572. International Trade and Finance (3)

Prerequisite: ECON 310, 311, and consent of the instructor. Pure theory of trade. Consequences of balance of payments disequilibrium for national income and prices. Tariffs, customs, unions and the theory of commercial policy. Foreign exchange market and international financial institutions.

481./581. Intermediate Economic Statistics (3)

Prerequisites: ECON 310, 311, 380, and consent of instructor. A rigorous treatment of statistics emphasizing aspects relevant to economics. Statistical inference, probability distributions, application of simple and multiple regression analysis to economic problems, analysis of variance and structural analysis of time series.

486. Introduction to Econometrics (4)

Prerequisites: ECON 310, 311, 380, and consent of instructor. Elementary mathematical expression of economic theory. Combined use of mathematics and statistics to solve economic problems. Use of econometric models for formulation of economic policy. (Lecture 3 hours, laboratory 2 hours.)

***490. Special Topics in Economics (3)**

Prerequisite: Consent of instructor. Topics of current interest in economics selected for intensive development. May be repeated for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

491H. Senior Honors Seminar in Economics (3)

Prerequisites: Senior status, ECON 481 or 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 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. Course may be repeated for a maximum of six units.

499. Directed Study (1-3)

Prerequisite: Consent of instructor. Independent study under the supervision of a faculty member. May be repeated for a maximum of 6 units of credit.

Graduate Level

500. Business Economics (3)

Workings of the price system in the allocation of resources, and the determination of the level and fluctuations of aggregate economic activity, with special emphasis on the role of business enterprise in the economy. Analysis of the economic implications of various forms of industrial organization and the application of public policy to business activity, including antitrust policy and regulation. Not open to students majoring in economics.

503./403. Mathematical Economics (3)

Prerequisites: ECON 310 and 311. Applications of calculus, linear algebra and other mathematical tools in formulating and solving economic problems. (Not open to students with credit in 483./583.)

510./410H. Advanced Microeconomics (3)

Prerequisites: ECON 310, 311 and 503. Applications of microeconomic theory. Detailed examination and analysis of particular markets and contemporary issues in light of economic theory. Specific emphasis on policy analysis for government and business decisions.

511./411H. Advanced Macroeconomics and Forecasting (3)

Prerequisites: ECON 310, 311 and 503. Applications of macroeconomics, monetary and forecasting theory to operational management and planning decisions of government and business.

522./422. Macroeconomics for Management (3)

Prerequisites: ECON 311. Managerial applications of macroeconomic concepts. Emphasis on developing tools to analyze and predict aggregate economic activity and on promoting understanding of interrelationships and interdependencies of the macroeconomic environment for managerial decision making. Topics include: macroeconomic goals and efficient management; measurement and sources of economic data; modeling the macroeconomy; structural, or supply-side, changes affecting the macroeconomy; business cycle forecasts and the use of economic indicators; econometric forecasting, input-output analysis. Letter grade only (A-F).

555. Transportation Economics (3)

Prerequisites: M.A.G.L. core (ECON 500 and MGMT 500) or consent of instructor. 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).

556. Economics of Logistics Management (3)

Prerequisites: M.A.G.L. core (ECON 500 and MGMT 500). Analysis and design of domestic and international logistics systems. Topics include transportation, warehousing, inventory control, materials management and physical distribution, systems design and organization. Letter grade only (A-F).

565./465. Economic Development (3)

Prerequisites: ECON 310 and 311. Economic and social factors underlying economic development. Analysis of problems associated with economic growth of less developed countries. Evaluation of development policies.

572./472. International Trade and Finance (3)

Prerequisites: ECON 310 and 311. Pure theory of trade. Consequences of balance of payments disequilibrium for national income and prices. Tariffs, customs, unions and theory of commercial policy. Foreign exchange market and international financial institutions.

581./481. Intermediate Economic Statistics (3)

Prerequisites: ECON 310, 311 and 380. A rigorous treatment of statistics emphasizing aspects relevant to economics. Statistical inference, probability distributions, application of simple and multiple regression analysis to economic problems, analysis of variance and structural analysis of time series.

586. Introduction to Econometrics (3)

Prerequisites: ECON 310, 311, and 380. Elementary mathematical expression of economic theory. Combined use of mathematics and statistics to solve economic problems. Use of econometric models for formulating economic policy.

597. Directed Studies (1-3)

Prerequisite: Consent of instructor. Intensive reading and/or practical research in economics.

655. Seminar in Global Logistics (3)

Prerequisites: Completion of at least 24 units in the M.A.G.L. program. A capstone seminar in global logistics. Students will complete a major research project that allows them to integrate their knowledge of global logistics. The research topics may include case studies developed by the Council of Logistics Management. Students will work in teams. Each student will submit a written report. Students will be required to make an oral presentation of their research. Letter grade only (A-F).

660. Seminar in Natural Resources and the Environment (3)

Prerequisites: ECON 510, 511, and one of the following: ECON 462, 463 or 464. Research methods applied to selected topics from energy, natural resources, and the environment. Letter grade only (A-F). (Seminar, 3 hours.)

670. Seminar in International Trade and Development (3)

Prerequisites: ECON 510, 511, and one of the following: ECON 565 or 572. Selected topics dealing with current problems and solutions in international trade, finance, and development. Letter grade only (A-F).

686. Seminar in Econometrics (3)

Prerequisites: ECON 586, 510 and 511. Development of methods for the estimation and testing of the relationships among economic variables and use of econometric models for prediction and economic policy purposes. Letter grade only (A-F).

690. Seminar in Economics (3)

Prerequisite: Consent of instructor. Seminar on topics of current interest in economics. May be repeated for a maximum of six units with different topics.

697. Directed Research (1-3)

Prerequisite: Consent of instructor. Independent research under the guidance of a faculty member.

698. Thesis (2-6)

Prerequisite: Consent of graduate advisor. Planning, preparation and completion of a thesis related to a field in economics.

EDUCATIONAL PSYCHOLOGY, ADMINISTRATION, AND COUNSELING

College of Education

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department of Educational Psychology, Administration and Counseling offers graduate level course work in the following program areas: Educational Administration; Educational Psychology; Social and Philosophical Foundations Education; Career Counseling; Marriage and Family Therapy (MFT); School Counseling; School Psychology; Student Development in Higher Education; and Special Education; as well as undergraduate service courses in life skills and other areas.

Students desiring information should contact the department office for referral to one of the faculty advisors.

All CED graduate level courses (500/600) are assumed to be Letter grade only (A-F) unless stated otherwise.

Graduate Degrees

Master of Arts degrees in Education with the following options are offered:

- Educational Administration
- Educational Psychology
- School Librarianship
- Social and Multicultural Foundations of Education
- Educational Technology

Two Master of Science degrees are available:

- Special Education
- Counseling

MS in Counseling offers five options:

- Career Counseling
- Marriage and Family Therapy
- School Counseling
- Student Development in Higher Education
- Vocational Rehabilitation Counseling (Discontinuance is under consideration.)

Credentials

The department offers credentials in Administrative Services (Preliminary and Professional), Pupil Personnel Services (School Counseling, School Counseling Internship, School Psychology, School Psychology Internship), Special Education (Mild/Moderate and Moderate/Severe) and Library Media Teacher Services. In addition, a Graduate Certificate as a Career Guidance Specialist is offered.

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 their status in the credential program students must earn sufficient grade points to bring their GPA back to 3.0 by the end of the regular semester following the semester in which their GPA fell below 3.0. Refer to this catalog for policy.

Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code CO-EDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units):

Culture: ANTH 421/LING 425 or EDP 432/EDEL 430

Language: EDP 454 or LING/CD 329

Schooling: EDP/LING 485

Development: EDP 301, 302, HDEV 307I, or PSY 361

2. Six additional units, selected with an advisor, from the following:

Culture: AIS 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319, ANTH 329, ANTH 412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430

Language: ANTH 170, CHLS 402, EDP 454, LING/CD 329, LING/ENGL 327, LING 363I, LING 435, LING 472, LING 486.

Schooling: AIS 361, ASAM 310, B/ST 420, CHLS 340, EDP 305, EDP 350.

Development: EDP 301, EDP 302, HDEV 307I, PSY 361.

Master of Arts in Education

Please submit a separate program application as well as a University application for all masters and credential programs. Program application dates may vary (please see individual program).

Option in Educational Administration (code EDADMA01)

Educational leaders serve in many capacities. No matter what position an individual holds within an educational organization, all energies should be directed at maximizing the 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 the role of schooling in a democratic society, instructional leadership, building collaboratives, managing and guiding change, and working with diverse populations. Because of our location, issues associated with urban schools are a primary focus of the program.

Prerequisites

15 upper-division units in education including ED P 400, or equivalent experience.

University Admission

File a "University Application for Graduate Admission" along with one complete set of official transcripts with the University Office of Admissions. Online University application at www.csumentor.edu.

Conditional Admission to the Program

File a "Preliminary Administrative Services Masters/Credential Program Application" with the College of Education Graduate Office (ED1-7) along with one complete set of official transcripts no later than March 1 for fall admission. For admission into the program, you must meet University admission requirements and complete and submit the following:

1. Transcripts verifying a minimum 2.85 overall GPA in the last 60 semester (or 90 quarter) units of course work taken;
2. Two non-confidential letters of recommendation (following Letter of Recommendation Guidelines found with program application) from individuals familiar with your professional competence and potential as an educational leader, one of which must be from your principal or immediate supervisor;
3. A double-spaced typed personal statement (following Personal Statement Guidelines found with program application) describing your educational preparation, leadership experiences, and leadership philosophy;
4. An interview with program faculty (conducted at a later date).

Clear Admission to the Program (Advancement to Candidacy)

In addition to 1-4 above, a candidate must:

1. Pass Writing Proficiency Exam (WPE);
2. Complete EDP 400;
3. Resolve all incomplete grades;
4. Complete the following core course: EDAD 541, and one other EDAD course for a total of six (6) units.
5. A 3.0 grade point-average in all completed program courses;
6. Complete an approved plan of study in consultation with a program advisor.

Requirements

A minimum of 30 units with a 15 unit concentration in Educational Administration is required; 21 units must be in the 500/600 level series taken at this University.

1. One of the following (3 units): EDP 574 or EDAD 649.
2. One of the following (3 units): EDP 575, 576, or 672.
3. One of the following (3 units): EDP 500, 595, or 696.
4. One of the following chosen in consultation with the faculty advisor: EDAD 695 master's project (3-6 units) or EDAD 698 thesis (6 units).
5. All of the following (18 units): EDAD 541, 544, 647, 648, 650, EDP 677.

Option in Educational Psychology (code ED_PMA02)

A research-oriented option in the Masters of Arts (MA) in Education has been designed for students and educators who seek to develop their understanding of learning and development, testing and assessment, research, and program evaluation in education. This program offers a rigorous curriculum in each of these areas and requires that the student declare a "foundation" emphasis within the Option. All students who are admitted to the master's program are assigned to Track 1. Admission to the MA, Option in Educational Psychology does not guarantee acceptance to the highly competitive School Psychologist Credential Program. Students with this credential objective must apply separately to the School Psychologist

Credential Program. Upon acceptance to the School Psychology Credential Program, a master's student may petition to be assigned to Track 2 no later than May 1 of that academic year. (Check the CSULB Catalog and the Department Office for application deadlines.)

Admission Requirements

University Admission Application

1. File an "Application for Graduate Admission" along with one complete set of official transcripts with the University Office of Admissions. Online application at www.csumentor.edu
2. Complete Parts A and B. In Part B, insert program code 5-3158.

Conditional Admission to the Program

1. Meet University admission requirements.
2. Complete and submit a program application (see application for requirements) and submit with official transcripts, one from each college attended, to the Graduate Office in the College of Education (ED1-7). Transcripts must verify a GPA of 3.00 or higher on the last 60 semester (or 90 quarter) units of college course work taken. Evidence of completing at least a baccalaureate degree majoring in the behavioral sciences, education, or a related program prior to beginning the Master of Arts in Education (Educational Psychology Option). (Applicants with other majors should seek advisement from the program faculty.)
3. Send an official transcript of test scores obtained from the Educational Testing Service for the Graduate Record Exam (GRE) General Test to the Graduate Office in the College of Education. For admission consideration, the criterion is a combined Verbal and Quantitative score of 1000.
4. For international students, whose primary language is not English, in addition to GRE scores, send an official transcript of test scores obtained from the Educational Testing Service (ETS) for the Test of English as Foreign Language (TOEFL) to the Graduate Office in the College of Education. For admission consideration, the criterion is a TOEFL score of 550 or higher is required.
5. Official transcript(s), GRE scores, and TOEFL score if applicable must be on file in the Graduate Office in College of Education no later than July 1 for consideration to enter the Fall semester or no later than December 1 for consideration to enter the Spring semester.
6. Note: "Conditional admission" status does not guarantee admission to the master's program. To qualify for University admission in "conditionally classified" or "classified" graduate standing, a student must be accepted into a graduate degree program on a "conditional" basis or as "clear admission" status.
7. Applicants are not allowed more than 9 semester units of credit applied to curriculum requirements of this option completed prior to admission into the first semester of the program.

Clear Admission to the Program

The catalog published in the academic year in which the student is advanced to candidacy governs the course of that student's program.

Requirements for Advancement to Candidacy

1. Evidence of completing the following prerequisites: EDP 301 or 302, 305, 350, 405, 419, and 420, or acceptable equivalents.
2. Completion of the following core courses: EDP 519 and 520.
3. Verification of a 3.0 grade point-average on the prerequisites plus 6 to 9 units of core courses.
4. Removal of all incomplete grades.
5. Pass the Writing Proficiency Exam (WPE).
6. An approved plan of study completed in consultation with the program advisor.

Program Requirements

MA Objective (Track 1)

The degree objective requires a total of 36 units made up of a 30-unit core and a 6-unit "foundation" that culminates in either (a) a master's thesis or (b) a written comprehensive examination.

1. Degree Core:
 - A. EDP 519, 520, 541, 595, 596, and 619
 - B. 9 units from EDP 604 and 605, PSY 632, 634, and 637
 - C. 3 units from EDP 529 and 564
2. For the "foundation" culminating in a master's thesis, the student completes all of the above 30 units of core courses plus 6 units of EDP 698. OR, for the "foundation" culminating in a written comprehensive examination, the student complete all of the above 30 units of core courses plus 6 units 500/600 electives selected with the approval of the program advisor; and a written comprehensive examination.

MA Objective (Track 2)

Assignment to Track 2 requires that students admitted to the School Psychologist Credential Program petition the Graduate Office to transfer from Track 1 to Track 2. The degree objective requires a total of 37 units made up of a 31-unit core and a 6-unit "foundation" that culminates in either (a) a master's thesis or (b) a written comprehensive examination. All courses are 3 units unless specified otherwise.

1. Degree Core:
 - A. EDP 519, 520, 524(4 units), 541, 595, and 596
 - B. 9 units from ED 579A, 604, and 605 and PSY 632, 634, and 637
 - C. 3 units from EDP 525, 529, and 564
2. For the "foundation" culminating in a master's thesis, the student completes all of the above 31 units of core courses plus 6 units of EDP 698. OR, for the "foundation" culminating in a written comprehensive examination, the student complete all of the above 31 units of core courses plus 6 units 500/600 electives selected with the approval of the school psychology credential program advisor; and a written comprehensive examination.

Option in Educational Technology (code ED_PMA05)

Serving the mission of enhancing education through the use of technology, educational technology specialists perform many functions in schools, educational institutions, and training agencies. This option prepares leaders in the field who will evaluate, design, and effectively use technology for educa-

tional purposes. Combining both theory and practice, this option is designed for individuals seeking career growth in K-12 and university settings and for those planning to pursue doctoral degrees.

Admission to the Program

File a "Master of Arts in Education, Option in Educational Technology" application with the College of Education Graduate Office along with one complete set of transcripts no later than March 1 for fall admission or October 1 for spring admission, including information to satisfy requirements 1-6 below.

1. A bachelor's degree from an accredited college or university.
2. Upper-division coursework in the use of technology and computer applications (3 units), e.g., ETEC 444, EDP 443, EDP 523, or equivalent experience (see advisor).
3. A 3.0 GPA in the last 60 semester or 90 quarter units of upper division and/or graduate course work completed at an accredited college or university and a 3.0 GPA in all prerequisite course work.
4. Three (3) letters of recommendation, preferably from teachers, supervisors, or colleagues in education or related fields.
5. A word-processed personal statement — see the program application for the specific questions to address.
6. An official transcript of scores obtained from the Graduate Record Exam (GRE) of the Educational Testing Service (ETS).

University Admission

File an "Application for Graduate Admission" along with one complete set of official transcripts with the University Office of Admission. Online application at www.csumentor.edu.

Advancement to Candidacy

1. Provide evidence of passing the Writing Proficiency Examination (WPE).
2. Maintain a 3.0 GPA in all course work.
3. Resolve any Incomplete grades.
4. At least 6 units of program and all prerequisites courses must be completed. If planned course of study includes EDP 520, the following prerequisites must be completed: EDP 400 or both EDP 419 and 420.

Prerequisites

ETEC 444 or EDP 443 or 523 or equivalent experience satisfying the California Level I computer technology standard.

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. With consent of the faculty committee, students may count up to 9 units of previously taken graduate courses toward the degree.

1. Core courses (21 units):
Research methods: EDP 520 or 595
Educational technology: ETEC 523, 525, 530, 551, 553, and 623.
2. Electives (6 units): In consultation with advisors, students should select 6 additional units. Options include, but are not limited to, the following:

- A. Educational Psychology: EDP 520, 595 (if not taken as a core course)
- B. Library Media: LI 530A, 530B, 540, 550
- C. Special Education: EDP 542
- D. Courses outside the College of Education, chosen in consultation with faculty advisors.

3. One of the following chosen in consultation with the faculty advisor:
 - A. ETEC 695 (3 units) plus pass a comprehensive examination
 - B. EDP 699 Project with written Project Report (3-6 units)
 - C. EDP 698 Thesis (6 units)

Option in School Librarianship (code ED_PMA06)

Library media teachers implement school library media programs through teaching, information access and delivery, and program administration. The Library Media Teacher Services Credential prepares students to serve in K-12 settings; for additional information go to www.csulb.edu/programs/lmt. The Master's degree option in School Librarianship provides a rigorous academic foundation for professional leadership in school librarianship. Because the Master of Arts degree option incorporates work towards the credential, students may pursue their credential and degree simultaneously.

Program Admission

Submit a program application to the Office of Graduate Studies, ED1-7 as well as a University application to the Office of Enrollment services.

Prerequisites

A current valid basic teaching credential (multiple subject, single subject, or special education) and completion of a bachelor's degree; passage of CBEST.

Clear Admission

1. Meet University admission requirements;
2. Copies of transcripts verifying a GPA of 3.0 or higher on the last 30 semester units of course work taken;
3. Three letters of recommendation;
4. A written personal statement describing your educational and experiential background, and professional goals; accompanying resume;
5. Screening interview.

Advancement to Candidacy

1. Pass the Writing Proficiency Examination (WPE).
2. Maintain a 3.0 GPA from the time of admittance to the program.
3. Complete at least six units in the approved program.

Program Requirements

A minimum of 40 units is required, with at least 24 in the 500/600 level series taken at this University. Students may choose either the comprehensive examination track or the thesis track, in consultation with the advisor.

Core Requirements

1. The following (3 units): LI 500
2. The following (21 units): LI 510, 520, 530A, 530B, 540, 550, 570

3. The following (6 units): EDEL/SE530 (or equivalent), EDP 677 (or equivalent)
4. The following (3 units): EDP 520
5. The following (4 units): LI 580
6. One of the following chosen in consultation with the faculty advisor upon advancement to candidacy:
 - A. Comprehensive examination and research paper: EDP 697 (3 units); or
 - B. EDP 698 Thesis (6 units)

Option in Social and Multicultural Foundations of Education (code ED_PMA03)

Students pursuing the option in Social and Multicultural Foundations engage both traditional and contemporary perspectives through focused, interdisciplinary study. The option is designed for individuals seeking careers in multicultural/multilingual education programs, international education, contemporary urban educational environments, and for students interested in pursuing higher academic degrees.

Admission Procedures

Program Application: No later than March 1 for Fall semester consideration, file an application for the option, "Social and Multicultural Foundations," with the Graduate Office in the College of Education. Failing to supply a complete application by the deadline may jeopardize your acceptance into the program. Include the following material with the application:

One complete set of transcripts from all educational institutions attended. Transcripts must verify a minimum grade point average of 2.85 in the last 60 semester (or 90 quarter) units of course work.

A type written 3-page personal statement that discusses a) academic and career experience b) intellectual or academic strengths c) proposed course of study in the program with respect to professional goals.

One representative sample of applicant's academic writing.

Two letters of recommendation from someone who can evaluate your abilities.

University Application: No later than March 1 for Fall semester consideration, file an "Application for Graduate Admission" with the University Office of Admissions, along with one complete set of official transcripts from all educational institutions attended.

Program Prerequisites

Fifteen (15) units of advisor-approved upper division or graduate level courses. May be taken concurrently with program courses, but must be completed prior to advancement to candidacy. Courses should be chosen from each of the following categories.

1. A course on Race or Ethnic Issues
2. A course on Gender or Women's Issues
3. A course on Research Methods (qualitative or quantitative)
4. EDP 432, "Social and Cultural Diversity in Educational Settings" (or equivalent from CSULB or another university)

5. EDP/LING 485, "Theoretical Foundations of Language Minority Education" (or equivalent from CSULB or another university)

Program Requirements

A minimum of thirty-three (33) units of upper division and graduate courses, of which a minimum of twenty-one (21) units must be at the 500/600-level.

Core Requirements: Fifteen (15) of the 33-36 units must include: EDP 574, EDP 575, EDP 576, EDP 582 and one of the following: EDP 520 or EDP 595/LING 595.

Electives: Additionally, students must complete a minimum of fifteen (15) units of elective courses. The program provides flexibility for students to design their course of study (with advisor's approval) by enrolling in courses from those listed below, in any combination. For convenience, related courses are grouped together under areas of concentration. (When selecting courses below the 500 level, students may choose only those with an asterisk beside the course number, indicating that they are acceptable for credit in a master's degree — or those courses appearing on the List of Approved 400 Level Courses).

Race, Class, and Gender Studies in Education: EDP 573, EDEL/EDSE 505, ANTH 519/419, HIST *469, HIST *406A, HIST *406B, HIST *394, POSC *401

Language, Literacy, and Culture in Education: EDP 672, EDP *454, EDP 578/LING 475/575, EDP 589, EDEL/EDSE 540, EDP 577/LING 500, LING *460, LING *486, LING 650, ENGL 510, ANTH *413, ANTH 530, ART *301, PSY 539/439

International/Global Education: EDP 583, ETEC 525, ANTH *421/LING *425, POSC *455, POSC 600

Special Concentration: Alternatively and with advisor's approval, students may focus their program of study on a specialized area of their choice. (Suggested areas of concentration include, but are not limited to, education for ethnic/race/gender-specific groups, or populations with special needs; bicultural/bilingual education/ urban education; instructional technology among marginalized populations.)

Advancement to Candidacy

Students may advance to candidacy, at which time they receive catalog rights, after they have:

1. Met with the advisor
2. Completed all prerequisites
3. Completed 6 units of program courses
4. Passed the Writing Proficiency Exam
5. Maintained a 3.0 GPA in all program course work, including prerequisites
6. Completed any Incomplete grades

Exit Requirement

After completing all course work and advancing to candidacy, the candidate must select either the Directed Research and Comprehensive Exam or Thesis option. Either choice requires the consent of the program coordinator, department chair, and associate dean. Candidates choose one path from:

Path 1. Directed Research: EDP 697 (3), one semester and Comprehensive Exam

Path 2. Thesis: EDP 698 (6), over two semesters

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.

The Master of Science in Counseling Program consists of five options:

1. Career Counseling
2. Marriage and Family Therapy
3. School Counseling
4. Student Development in Higher Education
5. Vocational Rehabilitation Counseling (Discontinuance is under consideration)

The total number of course units needed to satisfy requirements for graduation depends upon the option selected by the student.

University Admission

File an "Application for Graduate Admission" along with one complete set of official transcripts with the University Office of Admissions no later than March 1 for Fall consideration, October 1 for Spring consideration if applicable.

Program Admission

File a "Master of Science in Counseling" application to only one program option area with the College of Education Graduate Office (ED1-7) along with one complete set of official transcripts no later than March 1 including steps 1-3 listed below:

1. Transcripts must verify a GPA of 2.85 or higher on the last 60 semester (or 90 quarter) units of course work taken. Evidence of completing at least a baccalaureate degree majoring in the behavioral sciences, education, or related program prior to beginning the Master of Science in Counseling program (those with other majors should seek advisement from the program faculty);
2. Send three (3) letters of recommendation along with the Program Application;
3. Send a type-written personal statement along with the Program Application;
4. Screening interview(s) (upon notification by the option area);

5. Items 1-3 above must be on file in the Graduate Office no later than March 1 for the following fall semester (students are admitted to begin course work in the fall semester only) except as noted below.

Career Counseling applicants only: Items 1-5, along with results of the Miller Analogies Test (MAT) and current edition of the Strong Interest Inventory, must be on file in the College no later than March 15.

MFT applicants only: Items 1-3 must be on file in the College no later than March 1 for fall or October 1 for spring. Item 6 is required. (MFT students are permitted to begin course work in either summer, fall, or spring semester upon admission to this option);

School Counseling applicants only: Items 1-3 must be on file in the College of Education Graduate Office no later than March 1.

Student Development in Higher Education applicants only: Items 1-3 must be on file in the College of Education Graduate Office no later than March 1.

6. Applicants are not allowed more than one-third the total number of semester units credit applied to curriculum requirements of the option selected completed prior to admission into the first semester of the program.

Option in Career Counseling (code ED_PMS01)

Students in this option prepare to provide career counseling and guidance services to adults and adolescents in the community and public agencies, college and university settings, business and industry settings, and private practice. The training prepares individuals for the California Registered Professional Counselor (CRPC) and National Master Career Counselor (MCC) examinations.

Requirements

All of the following (37 units): EDP 430, 502, 510, 513, 515, 529, 530, 531, 637, 638, 643C, 644C; and,

All requirements of ONE of the following tracks (21 units):

Thesis Track – EDP 419, 420, 519, 520, 696, 698; OR

Comprehensive Examination Track – EDP 400; and six elective courses from EDP 505, 516, 517, 520, 524, 555, 564, 566, 580, 596, and 601.

Advancement to Candidacy

EDP 430, 515, 530, and 400 or 419; pass the Writing Proficiency Examination.

Option in Marriage and Family Therapy (code ED_PMS04)

Students in this option will prepare 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.

Prerequisite

EDP 400 or its equivalent.

Requirements

All of the following (58-64 units): EDP 430, 508A, 508B, 510, 511, 512, 513, 514, 515, 520, 522, 543, 555, 556, 557, 601,

608, 609, 638, 643D, 644D, and EDP 698 (or comprehensive examination).

Advancement to Candidacy: EDP 400 (or its equivalent), EDP 430, 510, 513 and pass the Writing Proficiency Examination (WPE).

Option in School Counseling (code ED_PMS02)

The school counseling program is designed to prepare counselors to work in elementary, middle, and high schools. The program supports a comprehensive, developmental, and collaborative school counseling model. Students 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.

Requirements

All of the following (51-57 units): EDP 400, 430, 506, 515, 520, 530, 531, 536, 555, 596, 604, 607, 638, 639, 643A, 644A, 695C, and EDP 698 or comprehensive examination.

Advancement to Candidacy: EDP 400, 430, 506, 515; and pass the Writing Proficiency Examination (WPE).

Option in Student Development in Higher Education (SDHE) (code ED_PMS03)

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.

Requirements

All of the following (47-54 units): EDP 400, 430, 515, 516, 538, 547, 548, 549, 555, 576, 593, 596, 638, 643B, 644B, 693, and one from EDP 520 or 595; and EDP 698 or comprehensive examination.

Advancement to Candidacy: EDP 400, 430, 515, 593; and pass the Writing Proficiency Examination (WPE)

Option in Vocational Rehabilitation Counseling (VRC) (code ED_PMS05)

Students in this option prepare to provide vocational rehabilitation services to people with disabling conditions in state rehabilitation service offices, community-based sheltered workshops, hospitals, clinics, geriatric centers and hospices, Employee Assistance Programs, Social Security Disability Administration offices, private counseling firms, private practice, and School-to-Work Transition Programs. They also prepare for national Certified Rehabilitation Counselor (CRC) and California Registered Professional Rehabilitation Counselor (CRPRC).

Applicants should be aware that this option is under consideration for suspension or discontinuance and selected courses will not be offered in the 2002-03 academic year.

Requirements

All of the following (59-65 units): EDP 419, 420, 430, 501, 505, 510, 513, 515, 520, 524, 529, 531, 555, 637, and one from 564 or 580; and EDP 698 (Thesis) or comprehensive examination.

Advancement to Candidacy: EDP 419, 430, 501; pass the Writing Proficiency Examination (WPE).

Master of Science in Special Education (code ED_PMS06)

Students in the master's degree program are working toward attaining leadership positions in public and private schools and agencies in the community that provide services for individuals with disabilities. The master's degree 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 master's degree program ends with a thesis or comprehensive exam. The master's degree program does not result in a credential to teach students with disabilities. Students who want to teach individuals with disabilities should refer to the Education Specialist Credential Program section.

Admission

1. Submit a program application with copies of transcripts verifying a GPA of 2.85 or higher on the last 60 semester units (or 90 quarter units) of course work taken.
2. Baccalaureate degree from an accredited institution.
3. A typed essay of three to five pages, double-spaced, outlining the candidate's reasons for entering the program, experiences and training related to the program, and anticipated outcomes from completing the program.
4. An interview with program faculty (conducted at a later date).
5. 2 letters of recommendation from persons able to attest to the student's professionalism and preparedness for advanced academic studies.
6. Attendance at an on-campus program orientation.

Prerequisites

A bachelor's degree with 24 upper division units to include the following areas of study (suggested courses in education noted in parentheses):

1. Developmental: 3 units (EDP 301, 302).
2. Statistics and measurement: 3 units (EDP 400).
3. Individual differences: 3 units (EDP 350).

Requirements

Students must complete a minimum of 30 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:

Degree Requirements

1. EDP 550, EDP 535 and EDP 546C (9 units).
2. One of the following advanced methods courses (3 units): EDP 563 or 565.
3. One of the following areas of emphasis (3 units): EDP 542 or 566.
4. Electives to meet the required minimum of 30 units selected with a special education faculty advisor.
5. One of the following in consultation with faculty advisor:
Comprehensive Exam or Thesis.
Comprehensive Exam pathway: EDP 520 (3 units), 695S (3 units), and written comprehensive exam.
Thesis pathway: EDP 520 (3 units), 696 (3 units), and 698 (6 units).

CREDENTIAL PROGRAMS

Pupil Personnel Services

The College of Education at CSULB offers two of the four Pupil Personnel Services Credential programs issued by the California Commission on Teacher Credentialing (CCTC): school counseling and school psychology.

School Counseling Credential (code 802)

The school counseling credential is required of persons serving counseling and guidance functions beyond the advisory duties customarily performed by classroom teachers. A teaching credential or experience is not required. The credential holder is authorized to work in California public schools from kindergarten through grade 12. The counseling credential requirements include (1) undergraduate course work in the behavioral sciences and (2) specific graduate courses including practicum and field experience.

Minimum Requirements for Admission

1. Copies of transcripts verifying a GPA of 2.85 or higher on the last 60 semester units (or 90 quarter units) of course work taken;
2. Evidence of completing at least a baccalaureate degree prior to beginning the school counseling credential program;
3. Three letters of recommendation;
4. A type-written personal statement;
5. Interview.

Applicants are responsible for obtaining the 2003-2004 revision of the school counseling information packet including application materials, available in the department office (ED1-Room 10).

Program applications must be submitted to the College of Education Graduate Office (ED1-7). Application Deadline for Fall Admission: March 1

A Master of Science in Counseling or an approved equivalent degree is now required as part of the Pupil Personnel Services School Counseling Credential Program. Applicants to the Pupil Personnel Services School Counseling Credential Program who lack a Master of Science in Counseling or approved equivalent degree must concurrently apply to the Master of Science in Counseling (School Counseling Option) Program to be considered.

Prerequisites

1. Application for Certificate of Clearance is required for public school field work. Apply at least one year prior to the expected first field work semester. Persons possessing a valid California credential are exempt from this requirement.
2. Applicants are required to 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. Complete all of the following (51 units): EDP 400, 430, 506, 515, 520, 530, 531, 536, 555, 596, 604, 607, 638, 639, 643A, 644A, and 695C.
3. Field Work Prerequisites:
 - A. School Counseling Field Work (EDP 643A) (300 hours of approved activities, average of 20 hours per week):

(1) EDP 607

(2) Certificate of Clearance (see Prerequisites above)

B. Advanced School Counseling Field Work (EDP 644A) (300 hours of approved activities, average of 20 hours per week):

(1) EDP 530, 638, 643A, and 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, field work, or demonstrate specific competencies before recommendation to the state CCTC for the school counseling credential.

School Counseling Internship

For additional information, contact the School Counseling Program Coordinator.

School Psychology Credential (code 804)

School Psychologists consult with teachers, parents, and others regarding student learning and behavior difficulties. They monitor the progress of students with special needs, assist students to develop more productive school careers, and assist teachers in the areas of behavior management and teaching methods. A teaching credential is not required.

Admission

1. Copies of transcripts verifying a GPA of 3.0 or higher on last 60 semester units (or 90 quarter units) of course work taken.
2. Possession of a baccalaureate degree from an accredited university;
3. Three letters of reference by persons who have had professional work association with applicant;
4. A written personal statement - the application form contains a list of all the items to be included.
5. Screening interview - after the admission committee reviews the papers sent in by each applicant, those selected for the interview will be notified as to time and place.
6. Masters degree in related field or admission into Masters of Arts in Education Option in Educational Psychology.
7. Evidence of having taken the CBEST is required prior to clear admission to the program.

Requirements for the Completion of the School Psychology Credential

1. Completion of an acceptable master's degree in one of the behavioral sciences. Master's degrees which typically meet this requirement in the Department of Educational Psychology, Administration and Counseling are: Master of Science in Counseling; Master of Arts in Education with an option in Educational Psychology; Master of Science in Special Education or approved equivalent master's degree;
2. Completion of a minimum of 60 units in graduate coursework or their equivalents with the approval of the PPS School Psychology faculty in the following areas of study: Educational Psychology: EDP 405, 520, 528, 596; Counseling EDP 430, 517; Assessment and Intervention: EDP 524, 525, 527, 536, 560, 579A, 605; and Practicum and

Fieldwork: EDP 641, 642A, 642B; and 3 pre-approved elective courses in the area of counseling, special education or educational psychology.

3. Certification of program completion by the PPS credential School Psychology faculty is required. The student may be required to complete additional course work, field work, or demonstrate specific competencies before approval;
4. A Certificate of Clearance and successful performance on CBEST is required prior to field work/ internship;
5. Field Work in School Psychology prerequisites: Approval of field work-school psychology internship application by the faculty. All program courses except EDP 527, 536, 560, and 642. Application deadlines are March 1 for Summer and Fall and October 1 for Spring fieldwork.
6. Complete the National School Psychology Examination (ETS/ PRAXIS II #10400) prior to completion of the credential program.

School Psychology Internship

See Program Coordinator for details.

An internship is paid field work, performed under the supervision and with the permission of the PPS credential School Psychology faculty and the school district which hires the intern. In order to be recommended to a district as a possible intern, the student must have completed the prerequisites listed above in "1" and "5," and be approved by the School Psychology credential coordinator.

Special Education Credentials

As a result of regulation changes by the California Commission on Teacher Credentialing (CCTC) in the Spring of 1996, the Department of Educational Psychology, Administration and Counseling now offers the Education Specialist Credential. This credential program prepares and certifies special education teaching candidates in the CCTC Education Specialist Credential categories of Mild/Moderate and Moderate/Severe. This program does not require a Multiple or Single Subject credential as a prerequisite. An Intern Option is also available in collaboration with certain school districts. Please consult with the department office for further information.

Preliminary Level I – Education Specialist Credential and Intern Option: Mild/Moderate Disabilities (code 468) and Moderate/Severe Disabilities (code 469)

Professional Level II – Education Specialist Credential: Mild/Moderate Disabilities (code 468) and Moderate/Severe Disabilities (code 469)

This 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 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. The program has two tiers: the Preliminary Level I Education Specialist Cre-

denial and the Professional Level II Education Specialist Credential. Following receipt of the Preliminary Level I Credential, candidates need to complete the Professional Level II preparation in special education within five years of the date of issuance of the preliminary credential. An Intern Option is also available in partnership with selected school districts. Please consult the College of Education Student Information Center for further information. An Education Specialist Credential can also be earned in conjunction with the Integrated Teacher Education Program (ITEP). Please refer to the Liberal Studies Department for information on this.

Preliminary Level I Education Specialist Credential: Mild/Moderate and Moderate/Severe

Application for admission to the Education Specialist Credential Program should be made the semester before beginning the required courses in Level I. Students may apply to the program concurrent with completion of prerequisite courses and conditions, and may be admitted on a conditional basis pending completion of these preparatory experiences. To be considered for full acceptance, students must provide verification of the following:

1. Admission to the University
2. GPA of 2.75 in college and university course work (last 60 units);
3. Demonstration of subject matter competence - California Subject Examinations for Teachers (CSET) passed or verification of an approved subject matter preparation program.
4. Prerequisites for full acceptance (must be completed or in progress before enrolling in level I courses): EDP 301 (or HDEV 307I or PSY 361) or EDP 302; EDP 350; EDP 454; *ETEC 444 or meet clear credential competencies through testing.

To complete the admissions process, students should:

1. Complete and submit the Education Specialist Credential Program application;
2. Specify area of authorization (Mild/Moderate, Moderate/Severe, or both);
3. Provide verification that prerequisites have been met;
4. Provide verification of California Basic Educational Skills Test (CBEST) attempt; and
5. Participate in a face to face interview with program faculty.
6. Each applicant will be informed in writing of the decision of the program faculty regarding acceptance into the program shortly after the interview. Upon admission, students are required to meet with assigned program faculty for advisement and may begin taking coursework in Level I in the advised sequence after acceptance into the program.

Requirements: Level I

1. EDP 480, 405; EDEL 452, 462; EDP 564, 558.
2. Pass CBEST and apply for certificate of clearance prior to field study.
3. Pass Reading Instruction Competency Assessment (RICA) Test prior to applying for credential.
4. EDP 587 A, B or 588 A, B Advanced Field Study and Seminar (A and B at 6 units each)
5. U.S. Constitution Requirement (meet competencies through testing or POSC 100 or 391).

Preliminary Level I Education Specialist Intern Option: Mild/Moderate and Moderate/Severe

Application for admission to the Education Specialist Intern Program should be made the semester before beginning the required courses in Level I. To be considered for admission, candidates must provide verification of the following:

1. Employment by a collaborating school district in a qualifying special education classroom or setting;
2. Subject Matter Competence (completion of an approved waiver program such as CSULB's Liberal Studies degree or passage of the CSET);
3. Passing score on the CBEST;
4. A GPA of 2.75 in college and university course work (last 60 units).
5. U.S. Constitution requirement.

Prerequisites to Admission

To complete the admissions process, students must:

1. Complete and submit the Education Specialist Intern Credential Program application;
2. Specify area of authorization (Mild/Moderate, Moderate/Severe, or both)
3. Participate in oral interview with program faculty.

Upon acceptance, students will complete a program advisement sheet with an advisor and may begin taking prescribed coursework in Level I after acceptance into the program.

Prerequisite courses: EDP 350, 405; ETEC 444.

Requirements: Level I, Intern Option

1. EDP 480, 454; EDEL 452, 462; EDP 546D, 546E, 564, 558.
2. Apply for certificate of clearance prior to field study
3. Pass CBEST and RICA prior to field study.
4. EDP 587 B or 588 B (6)

Professional Level II Education Specialist Credential: Mild/Moderate and Moderate/Severe

Professional Level II Education Specialist Credential preparation is intended to enable new Education Specialist teachers to apply their Level I preparation to the demands of their professional positions while also developing as reflective practitioners in advanced skill areas and knowledge. The Level II program incorporates several courses in the Masters of Science in Special Education program and students are encouraged to apply to the M. S. in Special Education program.

Application and Admission

Candidates are encouraged to apply for admission to the Professional Level II Education Specialist Credential program in the semester immediately prior to their anticipated completion of Level I. The CCTC requires that candidates complete Level II within five years of the completion of Level I. Candidates must be employed for at least 2 years under a Level I credential to be granted a Level II credential. Upon completion of the Level I credential, candidates have 120 days of employment to select a support provider and develop a Level II Individual Induction Plan. To be considered for admission, candidates must provide verification of the following:

Prerequisite Conditions and Requirements

1. Admission to the University

2. Overall GPA of 2.85 in college and university course work (last 60 units)
3. Completion of Preliminary, Level I Credential or Certificate of Eligibility
4. Employment in a special education position in the area listed on your Level I credential
5. HSC 411 A or B (Health Science requirements)
6. CPR certification
7. Two letters of recommendation (from employer and a university faculty member at previous institution)
8. Interview with program faculty.

Professional Level II Education Specialist Credential Requirements

1. Complete 546C Practicum in Special Education and complete an Individualized Induction Plan. Select area of emphasis (mild/moderate or moderate/severe); identify specialization and action research focus; and identify non-university activities.
2. Complete the following Core courses: EDP 550 and 535.
3. Complete one Specialization course: EDP 542 or 566
4. Complete one Advanced Methods course: EDP 563 or 565
5. Participate in an Exit interview with University Faculty Mentor and District Support Provider.

Administrative Services Credential

Certification of school administrators is established in a two-level Administrative Services Credential.

The Preliminary Administrative Services Certificate (first tier) has no expiration and authorizes the holder to seek an administrative position. The Certificate informs the employing school district/agency of eligibility to serve. The Certificate must be registered with the CCTC at the time the candidate accepts employment as an administrator. The CCTC will then issue the Preliminary Administrative Services Credential authorizing the candidate to serve as an administrator. Once issued, the Preliminary Credential is valid for five (5) years and it is not renewable.

The Professional Administrative Services Credential (second tier) 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.

Preliminary (code 501)

Certification under this credential authorizes the candidate to serve in any position requiring the Administrative Services Credential. The program is oriented toward the following positions: elementary and secondary principals, assistant principals, supervisors of instruction, curriculum directors, and other building level positions. The program has been revised to meet the new Commission on Teacher Credentialing program standards. Approval pending. See Department for further information.

Clear Admission

Preference will be given to individuals with 3 or more years of classroom teaching and/or related educational experiences.

1. Complete the "Conditional Admission to Program" requirements (#'s 1-4) as listed for the MA in Education, Option Educational Administration;
2. Possess a valid teaching credential, or pupil personnel, or library media teacher, or health services credential, or vocational education instructor's credential or clinical rehabilitative services credential.

Requirements

Prerequisite: Enrollment in courses is contingent upon acceptance into the Educational Administration Program or permission from the program faculty. Candidates must be admitted into the Educational Administration Program before enrolling in courses.

1. EDAD 541, 544, 580, 647, 648, 650, 680, ED P 677 and EDAD 649 or ED P 574.
2. Two field experiences must also be completed, EDAD 580 and EDAD 680.
3. The CBEST must be passed prior to entrance in advanced field experience (EDAD 680). The CBEST must be taken no later than the second available test administrative date following enrollment in the program.

Exit Requirements

1. Verification of three years of successful experience in a position requiring one of the credentials listed in "Clear Admission", Item 2;
2. Satisfy the state requirement for mainstreaming;
3. Present to program faculty a professional portfolio of course and field experience projects and papers completed during the program which demonstrate candidate competency.

Professional (code 502)

Certification under the Professional Administrative Services Credential (Tier II) authorizes the candidate to serve in any position requiring the 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. Verification of employment by an educational agency in an administrative position.

Admission

1. Program application and evidence that prerequisites have been met;
2. Copy of transcript verifying a 3.0 minimum overall GPA in most recent thirty (30) semester units of graduate work;
3. Two (2) non-confidential letters of recommendation, one of which must be from the applicant's immediate supervisor;
4. A personal statement (double spaced 2-3 page) regarding experience and educational background, and philosophy of educational leadership;

5. Personal interview with the Coordinator of the Professional Administrative Services Credential Program;
6. Employer verification of support for the induction and mentoring program.

Requirements

The Professional Administrative Services Credential Program has a unique design intended to better meet the needs of the new administrator. The unit requirement ranges from 16-24 semester units, with an option for non-university professional development activities of up to 120 clock hours to substitute for any or all of the 8 elective units. The program has been designed to provide the candidate with professional support through a two (2) unit mentoring and professional development plan. The plan is developed collaboratively by the candidate, the school district mentor, and the University supervisor. The academic core consists of 12 units which must be completed with a grade of B or better. In the final semester there is a two (2) unit candidate assessment conducted through the Portfolio Exhibition. The balance of the program is completed through approved electives and/or professional development plan activities.

1. Individual candidate professional development plan prepared in EDAD 640.
2. The Program includes four (4) components:
 - Mentoring and Professional Development Planning* - 2 units: EDAD 640;
 - Core Courses* - 12 units: EDAD 641, 657, 658, and 659;
 - Electives/Professional Development Plan Activities* - up to 8 units: selected from approved courses throughout the University; EDAD 691 for 1-8 units; and/or up to 120 clock hours of professional development activities to substitute for the 8 elective units. (non-university);
 - Candidate Assessment* - 2 units: EDAD 692.
3. Satisfactory completion of the professional development plan as demonstrated through the Portfolio Exhibition in EDAD 692.
4. Minimum of two years of successful, full-time school administrative experience in the public school, or private school of equivalent status.

Exit Requirements

1. Provide verification of two years of successful full time experience in a position requiring the Administrative Services Credential;
2. Present to program faculty, school district mentor, and a panel of other candidates a professional portfolio of course and professional development projects, activities, and papers completed during the program which demonstrate candidate competency.

Library Media Teacher Services Credential (code 700)

The 31 unit program in Library Media prepares students for service as a library media teacher, grades K-12, in the State of California. For additional information go to www.csulb.edu/programs/lmt.

Admission

1. Submit a University Application, July 1 for Fall or December 1 for Spring (a maximum of six units may be completed through Open University/Extension Services prior to enrollment into the University);

2. Completion of a bachelor's degree;
3. Possession of a valid California teaching credential;
4. Passage of CBEST;
5. Overall 3.0 GPA in the last 60 semester or 90 quarter units of course work or 3.0 GPA in the completion of first 15 units of basic teaching credential course work;
6. Three letters of recommendation (submit to program advisor or department office prior to screening interview);
7. A one page personal statement (submit to program advisor or department office prior to screening interview) resume;
8. Screening interview.

Requirements

1. Core Courses (6 units): EDP 677 or equivalent, and EDP 583 or EDEL/EDSE 530 or equivalent;
2. Specialization Courses (21 units): LI 510, 520, 530A, 530B, 540, 550, 570;
3. Field Experience (4 units): LI 580.

A working knowledge of word processing, databases, spreadsheets, desktop publishing, presentation software, Internet searching and e-mail usage is expected.

Graduate Certificate Community College (code COEDCT02)

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. All students will be required to:

1. Be enrolled in a master's degree program or have an earned master's degree in a discipline leading to teaching or counseling in post-secondary education settings.
2. Complete 9 units of coursework in Educational Psychology: Introduction to the Community College (EDP 552), Students in U.S. Higher Education (EDP548), and a fieldwork class that is counseling or teaching focused (EDP 644B).
3. 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.

Graduate Certificate for Career Guidance Specialist (code COEDCT01)

This post-baccalaureate certificate program is planned for counselors and educators with interests in career education and career counseling.

Applicants should be aware that this option is under consideration for suspension or discontinuance and selected courses will not be offered in the 2002-03 academic year.

Admission

1. File an "Application for Graduate Admission," along with two complete sets of official transcripts, with the University Office of Admissions no later than March 1 for fall semester or October 1 for spring semester;
2. Transcripts must verify a GPA of 2.85 or higher on the last 60 semester (or 90 quarter) units of course work taken;
3. Evidence of completing at least a baccalaureate degree prior to beginning the Graduate Certificate program;
4. Two letters of recommendation (send only after notification by the program);
5. A type-written personal statement (send only after notification by the program);
6. Screening interview(s) (upon notification by the program);
7. Items 1-5 above must be on file in the department no later than November 1 for the following spring semester, or April 1 for the following fall semester;
8. Applicants are allowed only nine semester units credit applied to curriculum requirements completed prior to admission into the first semester of the program.

Requirements

1. 19 core course units: ED P 529, 530, 531, 637, and 643C;
2. Passage of the Writing Proficiency Examination (WPE);
3. Approved electives in the Departments of Educational Psychology, Administration and Counseling; Human Resources Management; Occupational Studies; Psychology or Sociology as needed to fulfill 19 units upon waiver of any core course units granted upon admission to certificate program.

Departmental Courses

The courses offered by the department align with several academic disciplines and traditions as listed below:

Counseling

EDP 191 Career and Personal Explorations
 EDP 357 Self Management
 EDP 430 Orientation to Counseling
 EDP 502 Vocational Aspects of disability
 EDP 504 Family Systems Approach to School Discipline Problems
 EDP 505 Job Development and Consultation
 EDP 506 Counseling in School Settings
 EDP 510 Laws and Ethics for Counselors
 EDP 511 Counseling the Alcohol/Chemically Dependent Person
 EDP 512 Child and Spousal/Partner Abuse
 EDP 513 Introduction to Clinical Interviewing
 EDP 514 Medications and Counseling
 EDP 515 Counseling Theory
 EDP 516 Counseling the Adult
 EDP 517 Seminar in School Counseling
 EDP 522 Counseling Methods and Techniques
 EDP 529 Assessment in Career Counseling
 EDP 530 Career Development and Decision Theory
 EDP 531 Career Information Resources

EDP 535 Collaborative Partnerships and Effective Communication in School Settings
 EDP 536 Collaborative Consultation in the Schools
 EDP 538 Student Development in Higher Education
 EDP 543 Human Sexuality Counseling
 EDP 547 Student Development Theory
 EDP 548 Students in U.S. Higher Education
 EDP 549 Management of Student Development in Higher Education
 EDP 552 Introduction to the Community College
 EDP 555 Cross-Cultural Counseling
 EDP 556 Counseling Children and Adolescents
 EDP 557 Counseling Couples
 EDP 580 Vocational Work Evaluation Systems
 EDP 593 Seminar in Professional Development in Counseling and Human Services
 EDP 595 Qualitative Research Methods
 EDP 601 Trauma and Grief counseling
 EDP 607 School Counseling Practicum
 EDP 608 Seminar and Practicum in Marriage and Family Therapy
 EDP 609 MFT Practicum
 EDP 615 Seminar in Home-School – Community Relations
 EDP 634 Family Systems Therapy: Theory and Practice
 EDP 637 Career Counseling Practicum
 EDP 638 Group Counseling
 EDP 639 Seminar in Organization of Pupil Personnel Services
 EDP 643A-D Counseling Field Work
 EDP 644A-D Advanced Counseling Field Work
 EDP 692 Special Topics in Counseling
 EDP 693 Advanced Seminar in Professional Development and Counseling
 EDP 695C Seminar in Professional Development in Counseling and Human Services

Educational Administration

EDAD 541 Leadership, Decision Making, and Collaboration
 EDAD 544 Legal Aspects of Education: Equity and Access
 EDAD 580 Introduction to Field Experience in Administration
 EDAD 590 Special Problems in Educational Administration
 EDAD 640 Mentoring and Professional Development Planning for the New Administrator
 EDAD 641 Advanced Instructional Leadership
 EDAD 647 Human and Financial Resources
 EDAD 648 Schools as Organizations: Development, Management, and Assessment
 EDAD 649 Urban Schools and the Community: Social, Political, Policy Issues
 EDAD 650 Instructional Leadership and Assessment
 EDAD 657 Practical Applications of Human and Fiscal Resources
 EDAD 658 Organizational Development, Culture, and Change
 EDAD 659 Educational Governance, Politics and Policy
 EDAD 680 Advanced Field Experience in Administration
 EDAD 691 Educational Administration Professional Development
 EDAD 692 Administrator Portfolio Development and Exhibition
 EDAD 693 Developing Teacher Leadership in Middle Level Education
 EDAD 695 Masters Project in Educational Administration
 EDP 677 Curriculum/Program Development and Evaluation

Educational Psychology

EDP 301 Child Development and Learning a Cross-Cultural Perspective
 EDP 302 Early and Late Adolescent Development and Learning: A Cross-Cultural Perspective
 EDP 305 Educational Psychology
 EDP 350 Education of Exceptional Individuals
 EDP 400 Fundamentals of Educational Statistics, Measurement and Evaluation
 EDP 405 Positive Strategies for Classroom Management
 EDP 419 Educational Statistics
 EDP 420 Tests, Measurement and Evaluations
 EDP 430 Orientation to Counseling
 EDP 490 Special Topics in Educational Psychology
 EDP 500 Educational Research
 EDP 519 Quantitative Educational Data Analysis I
 EDP 520 Research Methods in Education
 EDP 524 Psychoeducational Assessment
 EDP 525 Psychoeducational Diagnosis in Multicultural Settings
 EDP 527 Clinical Practice in School Psychology
 EDP 528 Orientation to Professional School Psychology
 EDP 536 Collaborative Consultation in the Schools
 EDP 541 Seminar in Educational Measurement and Assessment
 EDP 560 Behavior Analysis Positive Behavioral Interventions
 EDP 579A Curriculum-Based Academic Assessments and Interventions
 EDP 595 Qualitative Research Methods
 EDP 596 Program Evaluation in Education
 EDP 604 Seminar in Human Development
 EDP 605 Seminar in Consultation on School Learning
 EDP 619 Quantitative Educational Data Analysis II
 EDP 641 Practicum in School Psychology
 EDP 642A,B Field Work - School Psychology

Foundations of Education

EDP 432 Social and Cultural Diversity in Educational Settings
 EDP 485 Theoretical Foundations of Language Minority Education
 EDP 573 Intercultural Communication in Education
 EDP 574 Sociological Foundations of Education
 EDP 575 Intellectual Foundations of Educational Reform, 19th Century to Present
 EDP 576 Education and Diversity: Historical and Contemporary Perspectives
 EDP 577 Educational Linguistics
 EDP 578 Literacy and Linguistics
 EDP 589 Adult Literacy and Language Diversity
 EDP 672 Language and Educational Policies

Library Media

LI 497 Independent Study
 LI 500 Foundations of Information
 LI 510 Selection of Materials and Information Sources
 LI 520 Information Literacy and Reference Services
 LI 530A Library Media Materials for Elementary Grades
 LI 530B Library Media Materials for Secondary Grades
 LI 540 Organization of Information
 LI 550 Library Media Center Management
 LI 570 Library Media Technologies
 LI 580 Field Experience in the School Library Media Center

Research

EDP 400 Introduction to Educational Measurement and Statistics
EDP 419 Educational Statistics
EDP 420 Tests, Measurements and Evaluations
EDP 500 Educational Research
EDP 519 Quantitative Educational Data Analysis I
EDP 520 Research Methods in Education
EDP 541 Seminar in Educational Measurement and Assessment
EDP 595 Qualitative Research Methods
EDP 619 Quantitative Educational Data Analysis II
EDAD 695 Masters Project
EDP 696 Thesis Study: Plan, Development and Organizing Aspects
EDAD 697 Directed Research
EDP 697 Directed Research
EDAD 698 Thesis
EDP 698 Thesis
EDP 699 Project

Special Education

EDP 350 Education of Exceptional Individuals
EDP 405 Positive Strategies for Classroom Management
EDP 439 Specially Designed Academic Instruction in English
EDP 454 Development of Communication Skills in Bilingual Classrooms
EDP 480 Foundations of Inclusive Education in a Diverse Society
EDP 535 Collaborative Partnerships and Effective Communication in School Settings
EDP 542 Assistive Technology and Augmentative Communication
EDP 546A-F Practicum in Special Education
EDP 550 Emerging Perspectives in Special Education
EDP 558 Curriculum and Instruction for Students with Disabilities
EDP 563 Advanced Methods of Teaching Individuals with Significant Disabilities
EDP 564 Assessment and Evaluation of Students with Disabilities
EDP 565 Advanced Methods Mild/Moderate
EDP 566 Career Planning and Transition for Youth and Adults with Disabilities
EDP 587 A,B Advanced Field Study Mild/Moderate
EDP 588 A,B Advanced Field Study Moderate/Severe
EDP 695S Seminar in Special Education

Educational Technology

EDP 542 Assistive Technology and Augmentative Communication
ETEC 110 Introduction to Computers as Tools
ETEC 444 Computer Technology in Education, Level I
ETEC 449 Technology Applications for Educators
ETEC 523 Computer Technology in Education, Level II
ETEC 525 Social and Cultural Implications of Educational Technology
ETEC 530 Educational Technology Leadership
ETEC 551 Education and the Internet
ETEC 553 Instructional Design
ETEC 623 Developing Technology-Based Learning
ETEC 695 Seminar in Educational Technology
LI 570 Library Media Technologies

General

EDP 180 Family School Partnerships
EDP 190 Current Topics in Education
EDP 191 Career and Personal Explorations

EDP 357 Self-Management
EDP 360I Life and Career Decisions
EDP 373I Nonverbal Communication: Interaction of Mind and Body
EDP 390 Current Topics in Education
EDP 492 Field Studies in Human Services/Mental Health

Educational Administration Courses (EDAD)

Graduate Level

541. Leadership, Decision-Making, and Collaboration (3)
Prerequisite: A valid regular teaching credential or 15 upper division or graduate units in education. Leadership theory, styles, skills and their relationship to effective schools. Importance of developing a vision and skills for leading an organization to accomplish goals supportive of academic achievement for all pupils. Decision-making, communication, group dynamics, conflict resolution, and collaboration. Participate in a personal assessment, develop a philosophy and vision statement, a professional and academic plan, and begin a professional portfolio to demonstrate educational leadership competence.

544. Legal Aspects of Education: Equity and Access (3)
Prerequisite: EDAD 541. Study of school law with particular emphasis on California law, as set forth in the State and Federal Constitutions, statutes, judicial decisions, and in the rules and regulations of the U.S. Department of Education, California Department of Education and local units of administration.

580. Introduction to Field Experience in Administration (3)
Prerequisite: Approval by the Program Coordinator, Department of Educational Psychology, Administration and Counseling. Written application should be made by October 1 for the spring semester and March 1 for the fall semester. This is the first of two on-the-job experiences involving the student in the solution of problems in administration and supervision at the elementary and secondary levels. The course requires 100 hours of field experiences at the Candidate's school site. Credit/No Credit grading only.

590. Special Problems in Educational Administration (1-3)
Prerequisite: Enrollment limited to graduate students who hold a standard teaching credential and consent of instructor. Advanced study in educational administration within an area of specialization done on experimental, research and/or seminar basis. Area will be designated by department at the time course is scheduled. A student may enroll for one-three units to a maximum of 6 units for certificate and degree purposes, subject to suitable change in course content. Non-degree and non-certificate students may enroll for additional units subject to suitable change in course content.

597A,B,C. Directed Study (1,2,3)
Prerequisite: Approval of program coordinator and Graduate Studies Office. Application for enrollment must be made to the Office of Graduate Studies by March 1 for the summer or fall semester or by October 1 for the spring semester. Individual creative activity; projects, surveys, intensive reading; practical and action research in an area significant to the field of educational administration. Could also involve small group activity focused on an educational problem or issue. May be repeated for a maximum of six units, with no more than three units in one semester or for degree purposes.

640. Mentoring and Professional Development Planning for the New Administrator (2)

Prerequisite: Admission to EDAD Professional Administrative Services Program. The candidate, the University supervisor, and the school district mentor work together to develop an individualized induction plan for the support and professional development of the beginning administrator. The plan is based on a pre-assessment of the candidate's skills and competence. The plan includes a mentoring component, portfolio, academic course work, and optional non-university based professional development activities. Emphasis is placed on preparation to provide leadership in socioculturally diverse schools. Credit/No Credit grading only.

641. Advanced Instructional Leadership (3)
Prerequisite: EDAD 640. A major intent of the course is to guide instructional leaders in broadening their theoretical knowledge of

transformational pedagogy (transformative theories based on constructivism, critical, and affective pedagogies), and in applying these transformative constructs to structure schools for student success. The course is designed to present a holistic approach to educational leadership and curricular decision-making through the integration of the major themes: 1) organizational and cultural environment, 2) ethical and reflective leadership, and 3) management and information systems.

647. Human and Financial Resources (3)

Prerequisite: EDAD 541. Examine civil service systems, study the role and structure of personnel administration used in public school education. Review bureaucracy, rules and regulations, limitations in hiring and firing, PERB decisions, case law; labor contracts and limitations imposed by those contracts. Examine the costs associated with human resources and other fiscal infrastructure costs associated with the provision of free public education in California. Letter grade only (A-F). (Lecture 2 hours; Lab 2 hours.)

648. Schools as Organizations: Development, Management, and Assessment (3)

Prerequisite: EDAD 541. Concepts and skills of managing educational organizations. Decision making, conflict management, motivation, leadership, team building, communication, planning, and organizational change, culture and renewal. Perspectives and analysis of complex organizations and the theoretical and conceptual advances in the field

649. Urban Schools and the Community: Social, Political, Policy Issues (3)

Examination of characteristics of urban schools and the diversity of student populations and attitudes towards them. Study of the social, political, cultural forces impacting schools. Study of school programs and community collaboratives for delivering instruction and services which lead to safe, effective urban schools.

650. Instructional Leadership and Assessment (3)

Prerequisite: Admission to MA and/or Preliminary Administrative Services Credential program. Examine instructional leadership practices which have been proven successful in maximizing achievement for all students in urban schools. Examples of such practices included: working with teachers to develop a learning community which values diversity and provides powerful learning experiences based on knowledge of constructivist pedagogy, cognitive and language development; planning and utilizing valid and reliable assessments of student progress; utilizing instructional supervision models which provide for formative evaluation of teachers; planning and implementing staff development.

657. Practical Application of Human and Fiscal Resources (3)

Prerequisite: EDAD 640. Examination and application of principles, practices, procedures and guidelines affecting the management of fiscal and human resources, and information systems in public education. Course will include labor relations, collective bargaining, contract management, staffing, and budgeting issues.

658. Organizational Development, Culture, and Change (3)

Prerequisite: EDAD 640. An examination of the current and historical contexts of schooling; macro and micro factors and conditions that influence schools as organizations; moral and ethical leadership principles; and the application and management of change to improve the cultural and organizational environments of schools.

659. Educational Governance, Politics and Policy (3)

Prerequisite: EDAD 640. A critical examination of the moral and ethical dimensions of schooling, policies related to equity and access issues, political, economic, and legal perspectives and how they influence educational organizations, and the effects of collaborative leadership models on evolving school governance systems.

680. Advanced Field Experience in Administration (3)

Prerequisites: EDAD 541, approval by the Coordinator of Educational Administration, successful completion of EDAD 580. Application should be made by March 1 for the fall semester and October 1 for the spring semester. This is the second of two on-the-job experiences involving the student in the solution of problems in administration and supervision at the elementary and secondary levels. The course requires three weeks of full time field experiences completed at a location other than the candidate's school site. Credit/No Credit grading only.

691. Educational Administration Professional Development (1-8)

Prerequisite: EDAD 640. Participation in field-based professional development activities as specified in the candidate's individual Professional Development Plan created and approved in EDAD 690. One unit credit may be granted for 15 contact hours of professional development activity. Course may be repeated to a maximum of 8 units. Credit/No Credit grading only.

692. Administrator Portfolio Development and Exhibition (2)

Prerequisite: Completion of the Professional Development Plan, including the core courses, electives and/or professional development activities. Presentation of the candidate's Professional Portfolio consisting of academic course accomplishments such as papers, projects, action research; a personal mission statement; a reflective journal and/or artifacts which portray accomplishments in the administrative work setting, mentor involvement, and optional professional development activities completed during the credential program. The presentation will be made to the instructor, the school district mentor, and a panel of other candidates. Credit/No Credit grading only.

693. Developing Teacher Leadership in Middle Level Education (3)

Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or have the permission of the instructor. Contemporary research on effective schools identifies teacher empowerment as critical to school improvement and success. This course will involve administrators and teachers in developing middle level teacher leadership. Students will learn and practice collaborative and action research models. Letter grade only (A-F). Same course as EDEL 693 and EDMS 693.

695. Master's Research Seminar in Educational Administration (3)

Prerequisites: EDP 500 or 520, or 595. Advancement to candidacy in Educational Administration Option, approval of graduate advisor, and written application to the Graduate Office. Application for enrollment must be made to the Graduate Office by March 1 for the summer or fall semester or October 1 for the spring semester. Utilization of action based research methods to identify, study, and analyze a school/district based problem with recommended solutions. Students must prepare a culminating project paper describing the issue under investigation, related literature, data collection methods, findings and recommendations for problem resolution. Course may be repeated to a maximum of 6 units. (Not open to students pursuing the thesis option). Credit/No Credit grading only. Course may be repeated to a maximum of 6 units.

697. Directed Research (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-three units to a maximum of three units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made by March 1 for the fall semester or by October 1 for spring.

698. Thesis (3,3)

Prerequisites: Advancement to candidacy, ED P 595 or 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 summer session or October 1 for the spring semester.

Educational Psychology Courses (EDP)

Lower Division

180. Family, School, Community Partnerships (3)

Introduce students to current family, school, and community partnership models and approaches fostering two-way partnerships with families and communities of diverse backgrounds from primary grades through high school: historical, legal, social, and political perspectives regarding educational access and equity for diverse student populations found in contemporary classrooms; building relationships with ethnically and linguistically diverse families and communities. Letter grade only (A-F).

Educational Psychology Courses (EDP)

190. Current 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 under different topics for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

191. Career and Personal Explorations (3)

Prerequisite or Corequisite: Any foundation (G.E. Category A1, A2, A3, or B2) class. Not open to students with credit in EDP 360I. A course designed for, but not limited to, entering and undeclared students. An exploration of the 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.

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 adolescence across cultures with an emphasis on the learning process and developmentally appropriate teaching practices.

303. Preparing to Teach Special Populations in the General Education Classroom (1)

Prerequisites: Concurrent enrollment in EDEL 380. Roles and responsibilities of the general education teacher in the Individualized Education Program (IEP) process, including identification; referral; assessment; IEP planning and meeting; implementation; and evaluation. Relevant state and federal laws pertaining to the education of exceptional populations will be addressed as they relate to the major categories of disabilities. An emphasis will be placed on the general educator's role as a member of a multi-disciplinary team. Letter grade only (A-F).

305. Educational Psychology (3)

This course is a broad overview of the field of Educational Psychology. Analysis of theories of learning as they relate to intellectual, social, and personal domains of development with diverse learners. Emphasis on learning, motivation, and development with attention to educational practices to foster critical thinking, problem solving, and performance skills.

350. Education of Exceptional Individuals (3)

Survey of the education of individuals who have communication disabilities, visual disabilities, hearing disabilities, physical disabilities, learning disabilities, severe disabilities, and those labeled as gifted and talented. Field work.

357. Self-Management (3)

(Not open to students with credit in PSY 357.) Prerequisite: PSY 100. Introduction to theory, research and application of self-management procedures. Methods for integrating and managing the cognitive, emotional, behavioral, and physiological aspects

of an individual will be discussed. Topics will include systematic self-observation, career decision-making, interpersonal relations, time management, stress and emotion management, and habit change and maintenance.

360I. Life and Career Decisions (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Not open to students with credit in EDP 191. The course content will cover self-awareness (locus-of-control, personal characteristics, life values, etc.), personal styles and preferences (study and work skills and preferences), analysis of educational progress, decision making, selecting a major, and selecting a career. A series of assessments and assignments will be used to explore each of these areas. This course is designed to assist juniors and seniors who are undeclared majors or who have declared a major but are unsure that their choice of major is the right one for them. Letter grade only (A-F).

373I. Nonverbal Communication: Interaction of Mind and Body (3)

Prerequisites: Completion of GE Foundation requirements, completion of one or more Exploration course(s), and upper division status. 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. Same course as DANC 373I.

390. Current 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 under different topics for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

*400. Introduction to Educational Measurement and Statistics (3)

An introductory course in educational testing and measurement and statistical concepts that support these methods. Basic concepts of measurement including descriptive statistics, norms, reliability, and validity; correlation and simple regression; derived and transformed scores, issues related to the development of educational measures; interpretation of test scores. This course may not be used as a substitute for EDP 419 or 420.

*405. Positive Strategies for Classroom Management (3)

Applications of existing models and strategies of classroom management to promote student prosocial behaviors and academic growth and development. Includes information regarding functional analysis, hypothesis testing, instruction of alternative behaviors, crisis management and program modification in school settings.

*419. Educational Statistics (3)

Prerequisite: Satisfactory completion of an undergraduate mathematics course suitable for general education math 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 upon understanding statistical concepts, computation skills, and the use of computer programs in data analysis (Lecture 2 hours, laboratory 2 hours).

*420. Tests, Measurements and Evaluations (3)

Prerequisite: ED P 419. Determination, meaning and use of fundamental statistical concepts applied to problems of measurement and evaluation; construction, interpretation and use of standardized and teacher-made tests.

428. 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 to students currently enrolled in the Liberal Studies program. Same course as LING 429, FCS 409, and EDEL 429.

***430. Orientation to Counseling (3)**

A survey of the specialties, functions, roles, models and activities commonly employed in the counseling profession. The course will also include practice in rudimentary active listening skills, a survey of historical and conceptual frameworks, voluntary participation in community-educational services, and developing a professional orientation perspective, and exploring the special needs of clients and other professional considerations.

431. Cultural and Linguistic Diversity in Schools (3)

This course surveys the multiple forms of diversity present in schools, including issues surrounding culture ethnicity, race, linguistics, faith, special needs, gender, sexual orientation, and socio-economic status. Emphasis is on multicultural education, language minority education, and the promotion of learning for all students. The course addresses concepts of culture, educational equity, social justice, anti-bias and anti-racist curriculum, stereotyping, and cultural and linguistic contact. An overview is provided of the history, policy and practices regarding cultural and linguistic minorities in the United States and the impact on education. Special focus is placed on educational initiatives to address the rich ethnic diversity of California schools. Models of English language development and bilingual education are examined. Letter grade only (A-F). Same course as EDEL 431 and LING 431.

***432. Social and Cultural Diversity in Educational Settings (3)**

Experiential opportunity to examine personal attitudes toward distinct groups of persons, to develop multicultural competencies, and examine racism. Study of cultural, historical, social, and psychological factors that promote equal human worth. Same course as EDEL 430.

439. SDAIE: Specially Designed Academic Instruction in English (3)

Theories of second language acquisition and practical application: methods of teaching content to English language learners, reading and writing strategies, and curriculum development with application to K-12. Letter grade only (A-F). Same course as EDEL 439 and EDSE 439.

***454. Development of Communication Skills in Bilingual Contexts (3)**

Prerequisite: Consent of instructor. Normal and atypical development of language skills in school-aged children from non-English language backgrounds. Focus on the skills needed in the classroom, including communicative competence, pragmatics and literacy. Distinguishing between normal language development and linguistic problems.

***480. Foundations of Inclusive Education in a Diverse Society: Philosophical and Historical Perspectives and Legal Mandates (3)**

Prerequisites: Admission to Education Specialist credential program. Introduction to the philosophical and historical foundations of special education in a diverse society. Examination and discussion of educational theories, philosophies, models, legal mandates, and traditions of inclusive education. Discussion of impact of contemporary school practices on students with disabilities and their families. Letter grade only (A-F).

***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. Letter grade only (A-F). Same course as LING 485.

***490. Special Topics in Educational Psychology (1-6)**

Prerequisite: Consent of instructor. Topics of current interest in educational psychology selected for intensive study. May be repeated under different topics for a maximum of six units. Topics will be announced in the Schedule of Classes.

492. Internships in the Human Services (3)

Prerequisite: Consent of instructor. Students in any major are placed in agencies and organizations to engage in volunteer or paid work in human services/mental health. The required fifteen hour seminar will focus on personal values, interpersonal commu-

nications skills, critical thinking, and problem solving as they relate to the students' field placement. Development of knowledge and skills transferable to future careers will be stressed. 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 for credit to a maximum of six units, with no more than three units applicable to credential or major requirement.

Graduate Level

500. Educational Research (3)

Prerequisite: ED P 400. Types and applications of educational research, research design, problems of internal and external validity, uses of research resources, and critiques of research studies. Recommended to be taken early in a master's degree program.

501. Foundations of Vocational Rehabilitation (3)

History, philosophy, and legislation of rehabilitation affecting people with disabilities served by public and private rehabilitation delivery systems.

502. Vocational Aspects of Disability (3)

Medical, psychological, and sociocultural aspects of disabling conditions related to vocational activities. Emphasizes identification of functional limitations, attitudinal barriers to employment, and methods of remediating disabling conditions.

504. A Family Systems Approach to School Discipline Problems (3)

Designed to help teachers and parents develop appropriate student behavior. A communications based family systems approach to discipline.

505. Job Development and Consultation (3)

Job development methods leading to employment. Includes resume writing, job interviewing, networking, and employer consultation methods. Conceptual and applied distinctions between employability and placeability are addressed.

506. Counseling in School Settings (3)

Prerequisite: Official admission to the School Counseling Program. An 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. Letter grade only (A-F).

508A. Family Systems Therapy Applied to Lifespan Development (3)

Family systems assessment and counseling applied to lifespan development theories. Letter grade only (A-F).

508B Family Systems Methods (3)

Prerequisite: EDP 508A or consent of instructor. The application and practice of family systems therapeutic methods. Letter grade only (A-F).

510. Laws and Ethics for Counselors (3)

Prerequisites: ED P 430 and/or consent of instructor. Examines laws governing the professional aspects of counseling. Included are the legal and ethical considerations of the practice of family/child and clinical community counseling services. The emphasis will focus on clinical practice.

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.

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.

513. Introduction to Clinical Interviewing (3)

Theoretical bases and applications in the conduct of problem identification and diagnostic interviewing in career, clinical, college, school, and vocational rehabilitation counseling settings.

514. Medication and Counseling (2)

Prerequisites: EDP 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. Letter grade only (A-F).

Educational Psychology Courses (EDP)

515. Counseling Theory (3)

Prerequisite or Corequisite: EDP 430. Major counseling theories examined and the competencies of each developed for use in helping relationships.

516. Counseling the Adult (3)

Prerequisite: ED P 515. Theory and practice of counseling and guidance of the adult.

517. Seminar in School Counseling (3)

Prerequisite: ED P 515. Theory, research and techniques of counseling; use and analysis of case studies. Clinical work is required. (Not open to students with credit in ED P 631.)

519. Quantitative Educational Data Analysis I (3)

Prerequisites: EDP 419 and 420 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. Research Methods in Education (3)

Prerequisites: For majors in Educational Psychology: EDP 419 and 420, or equivalents. For other majors, with approval of program advisor: EDP 400 or equivalent. Examination and application of educational research methodology including various types of qualitative and quantitative methods, research designs, sampling methods, inferential statistics and hypothesis testing, and the structure and content of a research proposal. Letter grade only (A-F).

522. Counseling Methods and Techniques (3)

Prerequisites/Corequisites: EDP 513, 515. An applied course which provides practice in the methods and techniques of the major theoretical approaches employed in counseling.

524. Psychoeducational Assessment (4)

Prerequisites: EDP 420, EDP 528, and admittance to the School Psychology Program or consent of instructor. Practice in administration and interpretation of individually administered intelligence tests, tests of psychological processing and achievement. Students will administer practice tests to adults and children, be observed for proficiency, and assess clinical cases. (Lecture 3 hrs, lab 3 hrs). Letter grade only (A-F).

525. Psychoeducational Diagnosis in Multicultural Settings (4)

Prerequisite: EDP 524. Theory and practice of assessment of individuals with an emphasis on the linguistically and culturally diverse. Application of assessment results to regular and special education programs. (lecture 3 hrs., lab 3 hrs.) May only be offered in the Spring semester. Letter grade only (A-F).

527. Clinical Practice in School Psychology (3)

Prerequisites: ED P 525, and concurrent enrollment in ED P 642A. Diagnostic and remedial techniques with individuals, including those with learning disabilities and those with low-incidence exceptionalities. Discussion of problems and solutions in school psychology practice.

528. Orientation to Professional School Psychology (3)

Prerequisites: Admittance to the School Psychologist Program; EDP 515. Introduction to the field of school psychology. History of the field, orientation to public education, roles and functions, laws and ethics, research base, organization and supervision, social and

cultural influences, service delivery models, and current literature will be discussed.

529. Assessment in Career Counseling (3)

Prerequisite: ED P 420 or equivalent or consent of instructor. The selection, administration, scoring, and interpretation of assessment instruments in career counseling. Assessment areas include interests, values, personal characteristics, and aptitudes and abilities. Techniques for developing and using special assessment instruments will also be covered.

530. Career Development and Decision Theory (3)

Emphasis on life planning concepts as related to the world of work, theories of career development and the career decision process.

531. Career Information Resources (3)

Knowledge, use and management of information resources in the career development field.

535. Collaborative Partnerships and Effective Communication in School Settings (3)

Prerequisites: 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. Methods for developing collaborative partnerships and effectively communicating with educators, community members, families, and individuals with disabilities. Letter grade only (A-F).

536. Collaborative Consultation in the Schools (3)

Prerequisites/Corequisites: EDP 642A, 642B, 643A, 644A, 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 experiences are 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.

541. Seminar in Educational Measurement and Assessment (3)

Prerequisites: EDP 419, 420, 519, and 520 or equivalents. Advanced studies examining the reliability and validity of test scores, item response theory, and other statistical approaches for the improvement of educational testing, and practical application of administration and interpretation of assessment outcomes. Letter grade only (A-F).

542. Assistive Technology and Augmentative Communication (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 augmentation. Advanced development of computer assisted instruction across the curriculum for individuals with exceptional needs. Introduction to assistive technology assessment. Principles of augmentative communication systems. Letter grade only (A-F).

543. Human Sexuality Counseling (3)

Prerequisite: ED P 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 MFCC certification only.

546A,B,C,D,E,F. Practicum in Special Education (3,3,3,3,3,3)

Prerequisites:
A. Acceptance in Education Specialist Level II program or Master of Science in Special Education program and consent of instructor; for the Education Specialist Credential Program, Level II and MS in Special Education.
B. Admission to Education Specialist Intern Program, Level I (first semester) or paraeducation program or consent of instructor
C. Level I (first semester) & EDP 546D; for the Education Specialist Intern Program, Level I (second semester).
D. Level I (second semester) & EDP 546E; for the Education Specialist Intern Program, Level I (third semester).

Supervised experience with individuals with exceptionalities in schools, clinics, post-secondary education, workplaces, and residential settings. Application should be made by March 1 for the fall semester and October 1 for the spring semester. Letter grade only (A-F).

547. Student Development Theory in Higher Education: Theory to Practice (3)

Prerequisite: EDP 538. This course will explore student development theory and the application of theory to practice for programs and services in student affairs/higher education. Students will examine cognitive, psychosocial, topology, and person/environment theories and their application to traditional and non-traditional student populations. Critiques of these models for viability and usefulness with diverse student populations will be considered. Program models that allow for the translation of theory to practice will guide students in designing an effective program for college student populations as a requirement for this class. Letter grade only (A-F).

548. Students in U. S. Higher Education (3)

Prerequisite: ED P 538. Focus on the concepts of community and culture in the United States college with an emphasis on understanding the diversity of the student population to include age, gender, ethnic culture, sexual orientation, and people with disabilities.

549. Management of Student Development in Higher Education (3)

An analysis of the management and organizational theory and practice as it pertains to student development in higher education. Includes study of human and physical resources management.

550. Emerging Perspectives in Special Education (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. 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, and the relationships between research and practice. Letter grade only (A-F).

552. Introduction to the Community (3)

Prerequisite: Enrollment in M.A., M.S. or Credential Programs. An introduction, orientation, and survey of the 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. Letter grade only (A-F).

555. Cross-Cultural Counseling (3)

Prerequisite: EDP 515 or consent of instructor. Examination of discriminatory attitudes and practices including historical antecedents. Problems of minorities in cross cultural counseling. Psychological, sociological, cultural, and educational concerns regarding counseling of multicultural populations.

556. Counseling Children and Adolescents (3)

Prerequisites: EDP 515 and 522, or consent of instructor. Theories and application of the methods and techniques of the major theoretical approaches employed in counseling children and adolescents.

557. Counseling Couples (3)

Prerequisites: EDP 515. Couple development theories, issues, and practices pertaining to counseling couples. Letter grade only (A-F).

558. Curriculum and Instruction for Students with Disabilities (3)

Prerequisites: Full admission to the Level I Education Specialist Credential program or Education Specialist Intern program or acceptance in the Integrated Teacher Education Program - Education Specialist option and completion of or concurrent enrollment in EDP 564. Curricular issues, models and practices for students with disabilities. Emphasis on core curriculum in public schools and appropriate modifications and delivery of content to students with disabilities. Additional emphasis on effective instructional practices and methods for use with students with disabilities. Individualized instructional planning procedures, validated instructional strategies, and collaborative teaching are emphasized. Letter grade only (A-F).

559. Play and Art Therapy for Children/Adolescents (3)

Prerequisites: EDP 508A and EDP 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. Letter grade only (A-F).

560. Behavioral Analysis and Positive Behavioral Interventions (3)

Prerequisite: Admission to the field work (internship) in school psychology (EDP 642 A or B) or consent of instructor. Multidimensional and functional assessments of student behavioral problems. Developing data-based positive behavioral interventions for students with severe behavioral difficulties, including students with traumatic brain injury (TBI), Autism, emotional disturbance (ED), etc. 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. This course will focus on the utilization of formal and informal assessment procedures that are responsive to the cultural, socio-economic and linguistic characteristics of individual students with disabilities; the use of data-based decision making; the acquisition of knowledge and skills necessary to adapt, modify and integrate curriculum; implementation of systems to provide academic and social skill instruction to students with disabilities; and collaboration with community agencies for successful transition from school to work.

564. Assessment and Evaluation of Students with Disabilities (3)

Prerequisites: Admission to the Education Specialist Credential program, EDP 350, 405, 480, or consent of instructor. Knowledge of appropriate use of formal, informal and authentic assessment procedures for planning, monitoring and evaluating instructional programs for students with disabilities. Emphasis on issues in assessing and evaluating culturally and linguistically diverse students.

565. Advanced Methods of Teaching Individuals with Mild/Moderate Disabilities (3)

Prerequisites: 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. 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. Career Planning and Transition for Youth and Adults with Disabilities (3)

Prerequisites: 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. Examination of various models for and approaches to providing career educational and transition services to persons with disabilities. Letter grade only (A-F).

573. Intercultural Communication in Education (3)

Analysis of patterns and functions of communication in the classroom and school from the perspective of intercultural communication; structures of participation; communication and social structure; communicative events and interaction; attitudes toward languages and language skills in school contexts; comparison of school and community styles and expectations regarding communication. Course fulfills a requirement for the Supplementary Authorization in Teaching English as a Second Language.

574. Sociological Foundations of Education (3)

Relationships between society and the schools: local/national ideologies and political/economic influences; education as a social function; current trends and issues as they affect education. (Not open to students with credit in ED P 480.)

575. Intellectual Foundations of Educational Reforms, 19th Century to Present (3)

Historical survey of the intellectual and ideological foundations of educational reform movements in the United States, with emphasis from the late 19th century to present. Focus on individual educational philosophers and on major curriculum orientations; comparison of

the major educational ideologies; canons for basic mass literacy education versus elite education are compared, with consideration of their impact on diverse groups.

576. Education and Diversity: Historical and Contemporary Perspectives (3)

Major themes in the history of education from the perspectives of ethnic, racial, linguistic diversity, and gender in the United States and in California with an emphasis on the 19th and 20th centuries; survey of educational approaches for diversity; focus on the experiences of various groups; examination of the implications of major educational ideologies, policies and curriculum movements for various groups.

Educational Psychology Courses (EDP)

577. Educational Linguistics (3)

Prerequisites: Six units in linguistics or permission of instructor. A graduate introduction to the role of language and linguistics in contemporary education; analysis of the context of language acquisition; attitudes toward multilingualism; language policies which set guidelines and expectations for instruction; cultural factors which influence language acquisition. Same course as LING 500.

578. Literacy and Linguistics (3)

Prerequisites: Six units in linguistics or permission of instructor. This course provides a general introduction to the field of literacy studies from a linguistic and sociocultural perspective. Among the major topics presented are the relationship between oral and written language; the relationship between literacy and socioeconomic/sociocultural factors; and the impact of societal expectations regarding literacy. Pedagogical implications of these issues are explored. Same course as LING 575.

579A. Curriculum-based Academic Assessments and Interventions (4)

Prerequisites: Admission to the school psychology credential program, and EDP 420. Effective instructional strategies for diverse learners, including students with disabilities. Emphasis will be placed on on-going curricular-based assessments and their usefulness in identifying and maintaining effective academic interventions. Students will apply these skills in the Educational Psychology Clinic by problem-solving for clients who are experiencing academic failure. (lecture 3 hrs, lab 3 hrs) May only be offered in the Spring semester. Letter grade only (A-F).

580. Vocational Work Evaluation Systems (3)

Prerequisites: ED P 430, 529. Concepts and processes of vocational work evaluation systems as they pertain to the assessment of occupationally disabled clientele. The role and functions of work evaluators in industry, private and public vocational rehabilitation agencies, schools, and personnel/training activities will be examined in regard to their theoretical and situational applications.

582. Comparative International Education (3)

An overview of education in selected countries; a study of institutional organization, as well as issues which develop in particular social, economic, and political contexts; an examination of types of educational problems and solutions which are commonly shared. Letter grade only (A-F).

583. Global Education (3)

Background on critical world issues and cultural influences, as well as methods and resources for application in the classroom. Format includes resource speakers and practitioners, map activities, and cultural simulation exercises. Letter grade only (A-F).

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 March 1 for the summer and fall semester and October 1 for the spring semester. Advanced field study in a public or private school or community based site serving individuals with mild/moderate

disabilities. Candidates will be assigned to field sites five days a week with a master teacher or demonstrate competencies in their own classroom with an emergency/intern credential, under the supervision of a university supervisor. Students may concurrently enroll in EDP 587B upon advisement by their faculty advisor. Credit/No Credit grading only.

587B. Advanced Field Study and Seminar: Education Specialist Credential in Mild/Moderate Disabilities (6)

Prerequisite: EDP 587A or concurrent enrollment in EDP 587A upon advisement by their faculty advisor. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the spring semester. Advanced field study in a public or private school or community based site serving individuals with mild/moderate disabilities. Candidates will be assigned to field sites five days a week with a master teacher or demonstrate competencies in their own classroom with an emergency/intern credential, under the supervision of a university supervisor. Credit/No Credit grading only.

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 March 1 for the summer and fall semester and October 1 for the Spring semester. Advanced field study in a public or private school or community based site serving individuals with moderate/severe disabilities. Candidates will be assigned to field sites five days a week with a master teacher or demonstrate competencies in their own classroom with an emergency/intern credential, under the supervision of a university supervisor. Students may concurrently enroll in EDP 588B upon advisement by their faculty advisor. Credit/No Credit grading only.

588B. Advanced Field Study and Seminar: Education Specialist Credential in Moderate/Severe Disabilities (6)

Prerequisite: 588A or concurrent enrollment in 588A upon advisement by their faculty advisor. Application for admission should be made by March 1 for the summer and fall semester and October 1 for the spring semester. Advanced field study in a public or private school or community based site serving individuals with moderate/severe disabilities. Candidates will be assigned to field sites five days a week with a master teacher or demonstrate competencies in their own classroom with an emergency/intern credential, under the supervision of a university supervisor. Credit/No Credit grading only.

589. Adult Literacy and Language Diversity (3)

Prerequisite: Three (3) units from ED P 578/LING 575, ENGL 510; ENGL 535, or from an instructor approved course in literacy studies or adult second language acquisition. A general survey of issues in adult and family literacy/biliteracy and native language literacy with special focus on the educational needs of language minority adults and their families; consideration of the relationship between theory, policy and practice with attention to the social, economic and cultural characteristics of populations in need of literacy services. Letter grade only (A-F).

593. Seminar in Professional Development in Counseling and Human Services (1)

Prerequisite: EDP 538 and 548 (must have completed or concurrently enrolled) This course is an experiential orientation to the profession of counseling and student development/student affairs in higher education with an emphasis on opportunities to observe the interactions between organizational cultures, student cultures, and the functions and role of student affairs professionals in the work environment. Students will meet in a seminar format to discuss and analyze their observations and intentional learning activities from shadowing a professional and completing a fifty-hour practicum. Letter grade only (A-F).

595. Qualitative Research Methods (3)

Introduction to the theory and application of ethnographic and qualitative methods in educational settings with special emphasis on applications for educational linguistics, educational anthropol-

ogy, and research related to language arts instruction. Surveys the basic rationale for qualitative/ethnographic inquiry and basic concepts and methods for applications in teacher-as-researcher approaches and for action research. Same course as LING 595.

596. Program Evaluation in Education (3)

Prerequisites: For majors in Educational Psychology: EDP 419, 420, and 520 or equivalents. For other majors, EDP 400 and 520 or equivalents. 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; the mechanics and process of developing an evaluation plan. Letter grade only (A-F).

601. Trauma and Grief Counseling. (3)

Prerequisites: EDP 556 or consent of instructor. A required course for students in the Marriage and Family Therapy Program and a recommended course for graduate students in the other Counseling Programs. Will provide an overview of developmentally informed models of trauma response, training in 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 for the treatment of acute and chronic forms of post-traumatic distress and traumatic bereavement will be covered. Will not cover the treatment of childhood sexual or physical abuse. Letter grade only (A-F).

604. Seminar in Human Development (3)

Prerequisites: EDP 301 or 302, and EDP 400 or 419. Theories and issues in developmental psychology, Cognitive, linguistic, perceptual, biological, psychomotor, social and emotional development; nature-nurture and individual differences.

605. Seminar in Consultation on School Learning (3)

Prerequisites: ED P 305, and ED P 400 or ED P 419. Analysis of current theory and research in the area of student motivation, achievement and learning problems in the classroom; role of consultation among pupil service personnel, teachers, special educators and parents in maximizing the school learning of all students.

607. School Counseling Practicum (3)

Prerequisites: EDP 506, EDP 515. Practical application of counseling theory to work with children and adolescents. Supervised counseling, consultation, and case management experiences conducted in the educational psychology/counseling clinic and in school settings. (Not open to students with credit in EDP 517.) Letter grade only (A-F).

608. Seminar in Marriage and Family Therapy (3)

Prerequisites: EDP 510, 511, 512, 513, 515, 522. Recommended: EDP 556 and 634. Theories, research, treatment planning, and therapeutic methods of MFT counseling utilizing major psychotherapeutic approaches regarding assessment, diagnosis, and treatment of various mental health problems.

609. MFT Practicum (2)

Prerequisites: EDP 510, 511, 512, 513, 515, 522. Practicum application submitted no later than March 1 for the following fall semester, and October 1 for the spring semester. May be taken concurrently with EDP 608. MFT counseling in an appropriate non profit setting with closely supervised experiences prior to MFT fieldwork. Students will be required to assess, diagnose, describe appropriate interventions and conduct counseling services for individuals and/or families. Credit/No Credit grading only.

615. Seminar in Home-School – Community Relations (3)

Prerequisite: EDP 430. Theory and research into the social influences of home, school, and community on child behavior; techniques to foster close home-school relations and use of community agencies. (Open only to School Counseling Master's Degree students who have advanced to candidacy prior to Fall 1999 and to PPS/SC credential-only students admitted to the program prior to Spring 1999.)

619. Quantitative Educational Data Analysis II (3)

Prerequisites: EDP 419 and 519 or equivalents. An advanced multivariate statistical analysis course: multivariate analysis of variance, discriminant function analysis, canonical correlation, exploratory factor analysis, and structural equation modeling. Letter grade only (A-F).

634. Family Systems Therapy: Theory and Practice (3)

Major family systems therapy theories, research issues, and techniques for counseling families.

637. Career Counseling Practicum (4)

Prerequisites: EDP 510, 515, 529, 530 or 531, and 524 or 564 or 580. Career counseling at the secondary and post secondary levels with closely supervised clinical experiences. Students will be required to assess, diagnose, develop treatment plans, write progress and termination reports, provide appropriate interventions and conduct counseling services for individuals seeking career/vocational guidance.

638. Group Counseling (3)

Prerequisite: EDP 515. Theory and application of small group processes in guidance and counseling, laboratory practice in selection of participants, leadership, interaction methods, problem solving and evaluation.

639. Seminar in Organization of Pupil Personnel Services (3)

Prerequisite: EDP 430, 506. Practices in organizing, administering, supervising, and evaluating pupil personnel programs at various educational levels. Letter grade only (A-F).

641A. School Psychology Practicum (1)

Prerequisites: Admission to the school psychology program and EDP 528. Students will complete 100 hours of field placement with experienced school psychologist(s). ED P 641 A, B, & C may be taken concurrently, however, recorded practicum hours may not be duplicated. Credit/No Credit grading only.

641B. School Psychology Practicum (1)

Prerequisites: Admission to the school psychology program and EDP 528. Co-requisites: EDP 524. Students will complete 100 contiguous hours of field placement with experienced school psychologist(s). A contiguous practicum consist of a minimum of one full day and a maximum of 5 full days per week, a minimum of 4 weeks and a maximum of 1 year, at no more than two sites and with no more than two supervisors. ED P 641 A, B, & C may be taken concurrently, however, recorded practicum hours may not be duplicated. Credit/No Credit grading only.

641C. School Psychology Practicum (1)

Prerequisites: Admission to the school psychology program, EDP 524 and EDP 528. Students will complete 100 contiguous hours of field placement with experienced school psychologist(s). A contiguous practicum consist of a minimum of one full day and a maximum of 5 full days per week, a minimum of 4 weeks and a maximum of 1 year, at no more than two sites and with no more than two supervisors. ED P 641 A, B, & C may be taken concurrently, however, recorded practicum hours may not be duplicated. Credit/No Credit grading only.

642A. Field Work I - School Psychology (3)

Prerequisites: ED P 525, completion of acceptable masters degree, concurrent enrollment in ED P 527, and approval of program committee. Application for field work should be made by October 1 for the spring semester, or by March 1 for summer (if offered) or fall semester. Credit/No Credit grading only.

642B. Field Work II - School Psychology (3)

Prerequisites: ED P 527, 642A, and approval of program committee. Continuation of school psychology field work experiences. Application for field work should be made by October 1 for the spring semester, or by March 1 for summer (if offered) or fall semester. Credit/No Credit grading only.

643A-D. Counseling Field Work (3)

A. School Counseling

Prerequisites: EDP 607, Certificate of Clearance. Credit/No Credit grading only.

B. Student Development in Higher Education

Prerequisites: ED P 516, 538. Credit/No Credit grading only.

C. Career Counseling

Prerequisites: ED P 637. Credit/No Credit grading only.

D. Marriage, Family, Child Counselor

Prerequisites: ED P 608.

Practical experiences 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 summer or fall semester, and October 1 for the spring semester. (Not open to students with credit in ED P 541.) Credit/No Credit grading only.

Educational Psychology Courses (EDP)

644A-D. Advanced Counseling Field Work (3)

Continued field work under licensed/ credentialed supervisors (if required by specialty area or work setting). 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. (Not open to students with credit in ED P 545.) Credit/No Credit grading only.

A. Advanced School Counseling

Prerequisites: EDP 530, 536 (may take concurrently with 644A), 638, EDP 643A, pass CBEST.

B. Student Development in Higher Education

Prerequisites: ED P 549, 638, 643B.

C. Career Counseling

Prerequisites: ED P 638, 643C.

D. Marriage, Family, Child Counselor

Prerequisites: ED P 638, 643D.

672. Language and Educational Policies (3)

Examination and analysis of contemporary and historical language policies, educational language policies, and legal decisions in the United States which provide the context for current language practices in the schools; comparison of U.S. experiences with those of other nations; discussion of the relationship between language attitudes and educational policy formation.

677. Curriculum/Program Development and Evaluation (3)

Broad-based approach to classroom curriculum planning and curriculum design, and the technical process of curriculum and program planning. The role of the administrator as the leader of the learning community. Examine issues of: school democracy, developing a thinking curriculum, restructuring of public school curricula in urban and culturally diverse communities, and an integrated bi-literacy approach to learning. Examine ways to apply current instructional design models, and evaluate and assess their effective implementation. The California Curriculum Frameworks will be used to supplement and guide the development of a restructured curricula.

692. Special 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. Course may be repeated with different topics. Topics regarding continuing education for mental health providers are announced in the UCES *Schedule of Classes* or the University Fall, Spring, or Summer semester *Schedule of Classes*. Course may be repeated under different topics to a maximum of 12 units.

A. Special Topics in Counseling: Introduction to Psychodrama

An applied course which provides instruction and practice in the major theoretical approaches to psychodrama, a specialized group psychotherapy approach, with special attention to individual, child, adolescent, and family issues. Does not qualify for psychodrama certification.

B. Special Topics in Counseling: Advanced Psychodrama

Prerequisites: EDP 692A or consent of instructor. An applied course which provides instruction and practice in directing psychodrama as a counseling method.

693. Advanced Seminar in Professional Development in Counseling and Human Services (1-2)

Prerequisites: ED P 515, 538, 548, 593, and concurrently enrolled in 549. Students will explore the professional associations available for counselors and student affairs professionals, and will attend one on-campus professional development institute and one off-campus professional conference that is either regional or national in scope. Additionally, students will explore and demonstrate an integration of roles, philosophy, and theory for counseling and student development work. Finally students will develop a life long professional development plan. Letter grade only (A-F).

695C. Seminar in Professional Development in Counseling and Human Services (3)

Prerequisites: Advancement to candidacy and permission to enroll from College of Education Graduate Office. A seminar stressing integration of counselor roles and specializations. The student will demonstrate knowledge of the field along with selected skills in critical thinking and counseling methods.

695S. Seminar in Special Education (3)

Prerequisites: Advancement to candidacy, and written application to Graduate Office. Application for enrollment must be made by March 1 for the summer session or fall semester, or by October 1 for the spring semester. Studies of problems and issues in special education. Relating research to practice in the several areas of exceptional individuals. For qualified candidates preparing for the comprehensive examination. (Not open to students with credit in ED P 650.)

696. Thesis Study: Plan Development and Organizing Aspects (3)

Prerequisites: EDP 400 and 520 or 595; OR EDP 419, 420 and 520 or 595. Designed for students planning to write a thesis. A thesis committee must be formed and the thesis problem approved by the thesis committee by midterm in the course. A completed draft of the thesis plan will be accomplished by the end of the term/semester. Grading is CR/NC (Traditional grading is an option only for those students whose master's programs require EDP 696).

697. Directed Research (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-three units to a maximum of three units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made to the Office of Graduate Studies and Research by March 1 for the fall semester or by October 1 for the spring semester.

698. Thesis (3)

Prerequisites: Advancement to candidacy, ED P 519 or 520 or 595 or 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.

699. Project (3)

Prerequisites: Advancement to candidacy, approval of graduate advisor, and written application to the College of Education Graduate Office. Project application to be made to the College of Education Graduate Office by March 1 for the Summer or Fall semester or October 1 for the Spring semester. 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). Course may be repeated to a maximum of 6 units.

701. Organization and Administration of Higher Education: Functions and Issues (3)

The diversity of the complex systems of higher education will be examined with an emphasis on how the various systems function organizationally and culturally. Students will explore issues related to governance, decision-making, leadership, and research related to the organization and administration of higher education. Letter grade only (A-F).

702. Introduction to the Community College (3)

Students will analyze the community college system, function, and purpose in the US higher educational system. Students will explore research and studies on governance, structure, programs, and leadership of community colleges. Letter grade only (A-F).

703. Policy Issues in Community Colleges (3)

Prerequisite: EDP 702. Students will engage in in-depth analysis of the community college system specific to 1) local, state, and federal governance policies; 2) local, state, and national economic policies; 3) social and political influences on policy. In addition, students will explore the impact of future trends on educational policy. Letter grade only (A-F).

704. Exploration of Campus Cultures: Impact and Influence (3)

Faculty, administrative, and student cultures will be examined in terms of values, behavioral norms, impacts, and influences. Using studies of these cultures students will apply research methods for the study of campus cultures. Discussion will address implications of these findings for higher education policies and practices. Letter grading only (A-F).

705. Finance in Higher Education (3)

Students will examine how higher education is financed and the governmental influences (local, state, and federal) that shape this process. Through simulations, students will develop a working knowledge of finance, philosophies, vision, and processes for the design and implementation of resource planning in both two- and four-year institutions. Letter grade only (A-F).

706. Program and Student Assessment (3)

Assessment of students' learning and development and program assessment will serve as the focus of this research-oriented course. Students will design a holistic formative and summative program evaluation incorporating assessment and measurement of student outcomes. Letter grade only (A-F).

707. Student Learning and Development Theory in Higher Education (3)

This course will focus on student development and learning theories based on cognitive, psychosocial, typology, and person-environment perspectives. Students will analyze and critique theoretical tenets relevant to understanding the college experience. Letter grade only (A-F).

708. Leadership of Change in Higher Education (3)

This course will consider current research and theories on leadership and organizational change in higher education, including multicultural organizational development theories, planning, change, and the effective strategies for becoming a catalyst for change. Students will explore case studies of organizational leadership for change and examine issues, barriers, supports for, and processes and outcomes of change. Letter grade only (A-F).

709. Collaborative Reforms: Designing and Implementing Responsive Curricula (3)

This course will discuss the role of faculty and others in the collaborative development and implementation of responsive curricula and will explore systems for curricular redesign and reform at 2- and 4-year institutions and processes for their implementation. Letter grade only (A-F).

711. Field Research Study in Higher Education I (3)

This is the first in a series of faculty-led field research courses. Individually or in small groups, students are exposed to and participate in work related to an approved topic or to a faculty member's research and scholarship. Letter grade only (A-F).

712. Field Research Study in Higher Education II (3)

Prerequisites: EDP 711. This is the second in a series of faculty-led field research courses. Building on the first field research experience, each student will assess research skills, consult with the instructor, and (with instructor approval) work individually or in small groups on a research topic or on a topic related to a faculty member's research and scholarship. Letter grade only (A-F).

790. Special Topics in Higher Education (3)

This course examines such issues as the CEO's roles and responsibilities, managing change, facilitating focus groups, data-based organizational change, applications of technology in higher education, responding to the needs of student populations, working with governing boards, staff development programs, and personnel assessment

instruments. Letter grade only (A-F). Course may be repeated to a maximum of 24 units.

797. Directed Individual Study (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). Course may be repeated to a maximum of 24 units.

798. Doctoral Dissertation (3)

Prerequisites: Approval of instructor/doctoral candidacy required. Specifically designed for students researching and writing their dissertations. Credit/No credit grading only. Course may be repeated to a maximum of 24 units.

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).

Upper Division

*444. Computer Technology in Education, Level I (3)

Prerequisites: Course design assumes familiarity with topics introduced in ETEC 110. (See the course Web page on the College of Education Web site for more information and a self-assessment.) Introduction to educational computer technology: resources and tools for professional use; strategies for integrating computers into teaching; applications to diverse learners; and legal, ethical, and societal issues. This course satisfies the California Level I teaching credential computer technology standard. (Seminar 2 hours, laboratory 2 hours.)

*449. Technology Applications for Educators (1-3)

Prerequisites: Consent of Instructor. Contemporary applications of technology for teaching, learning, and the management of instruction. Demonstration and hands-on experience with computer and media applications in education. Demonstration and hands-on experience with computer and media applications in educational settings. Topics are announced in the *Schedule of Classes*. Course may be repeated to a maximum of 12 units with different topics.

A. Internet Resources for Educators

This course introduces students to the growing number of Internet-based educational resources for educators. The course provides discussion, demonstrations, and hands-on experience in the use of computer communication tools, including e-mail, file transfer protocol (FTP), newsgroups, listservs, and the world wide web. May be taken for Graduate Credit.

B. Evaluation and Selection of Instructional Technology Resources

This course introduces students to a variety of evaluation instruments and techniques for evaluating and selecting instructional technology resources to support the California curriculum frameworks. They will become familiar with exemplary programs and learn to evaluate new programs in terms of these exemplars.

Graduate Division

523. Computer Technology in Education, Level II (3)

Prerequisites: ETEC 444 or equivalent experience satisfying the California Level I computer technology standard. (See the course Web page on the College of Education Web site for more information and a self-assessment.) Advanced principles for integrating computer technology into learning environments to improve: planning, designing and implementing learning experiences; educational communication and collaboration; assessment and evaluation. This course satisfies the California Level II computer technology standard. (Seminar 2 hours, laboratory 2 hours.) Letter grade only (A-F).

525. Social and Cultural Implications of Educational Technology (3)

Critical examination of social and cultural implications of educational technologies, considering issues of cultural bias, equity, and ques-

tions of who benefits from particular technologies. International applications of computer technologies to promote learning about different cultures. Case studies of issues concerning computers and society.

530. Educational Technology Leadership (3)

Prerequisites: ETEC 523, or permission of the instructor. Examines the role of leadership as it relates to the implementation of educational technology in schools. Provides theory, knowledge, and skills necessary to use, evaluate, plan, and implement technologies effectively within a school system. Examines broader administrative issues, including security and ethics, associated with computers and other technologies.

Educational Technology Courses (ETEC)

551. Education and the Internet (3)

Prerequisites: ETEC 523. The course provides discussion, demonstrations, and hands-on experience related to educational applications of computer communications systems such as e-mail, file transfer protocol (ftp), computer bulletin boards, listservs, and the World Wide Web. Students complete a series of hands-on instructional assignments using technology-based tools to design and manage educational programs delivered via the Internet. (Seminar 2 hours, Laboratory 2 hours).

553. Instructional Design (3)

Prerequisites: ETEC 523 or equivalent experience satisfying the California Level II computer technology standard. An introduction to principles of instructional design with emphasis on designing effective teaching strategies with educational technology. Students will apply design theories and models to plan, create, and refine learner-centered educational activities. Students will complete a series of instructional design assignments involving educational technology. Letter grade only (A-F).

623. Developing Technology – Based Learning (3)

Prerequisites: ETEC 523, 553. Analysis and hands-on experience related to the use of modern techniques for developing technology-based learning. The course provides discussions, demonstration, and hands-on experience in the computer lab toward the development of technology-based interactive learning programs. The course introduces advanced concepts of technology-based instructional design that are of value to educators including educational psychologists, curriculum developers, school administrators, special education teachers, and school counselors. Students will complete a series of hands-on instructional design assignments using state of the art technology-based tools for the delivery of learning programs. Each student will apply these methods by designing a technology-based instructional program. Seminar 2 hours, laboratory 2 hours.

695. Seminar in Educational Technology (3)

Prerequisites: Successful completion of all required course work for the Master of Arts in education, option in educational technology. Application for enrollment must be made by March 1 for the summer session or fall semester, or by October 1 for the spring semester. Advanced studies in educational technology including reviews of the 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. Letter grade only (A-F). Course may be repeated up to a maximum of six units.

Library Media Courses (LI)

Upper Division

*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 for credit to a maximum of six units, with no more than three units applicable to credential or major requirement.

Graduate Level

500. Foundations of Information (3)

Exploration of the role of information and information technology in organizations (particularly in Western education) and society. Topics include societal needs and demands, sociology of knowledge and science, the exploration of diffusion of knowledge and technology, information seeking and use, information and culture, and technology and culture. Letter grade only (A-F).

510. Selection of Materials and Information Sources (3)

Criteria, tools, procedures and policies for evaluating and selecting instructional resources appropriate to use in school library media centers.

520. Information Literacy and Reference Services (3)

Philosophy of reference service and information literacy; criteria for evaluation, selection, setup and use of selected basic reference sources, both print and electronic; selection of reference sources to reflect the cultural and linguistic diversity of students; instruction in the use of reference sources and information literacy processes. 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 the cultural diversity of our state and support current curriculum frameworks; criteria and tools for selection and use; current issues.

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 the cultural diversity of our state will support current curriculum frameworks; criteria and tools for selection and use; current issues.

540. Organization of Information (3)

Rationale and use of card and online catalogs; principles and practice in classification and cataloging applied to school library media centers; processing/organization of information. Letter grade only (A-F).

550. Library Media Center Management (3)

Philosophy, principles and problems of planning, organizing, supervising and managing a school library media center program.

570. Library Media Technologies (3)

Prerequisites: Beginning skill with word processing and database management programs required. Evaluation, selection, and curriculum applications of computer, video, videodisc, CD-ROM, audiovisual, and other technologies appropriate for use in school library media centers; analysis and management of available hardware and software.

580. Field Experience in the School Library Media Center (4)

Prerequisites: Pass CBEST; possession of valid California teaching credential; and completion of the courses required for the credential or consent of program coordinator. Students will model effective practices in administering a library media program under the supervision of a credentialed library media teacher. Applications for spring and summer semester must be in the office of the program coordinator by October 1 and for fall semester by March 1.

COLLEGE OF EDUCATION

Dean

Jean Houck

Telephone / FAX

(562) 985-4513 / 985-4951

Associate Deans

Claude Goldenberg

Simon Kim

Steve Turley

Assistant to the Associate Deans

Pat Everett

Administrative Services Manager

Judy Swan

Administrative Services Assistant

Melody Nielsen

Director of Development

Elizabeth McCann

Director, Educational Psychology Clinic

Michael E. Bernard

Director, Educational Career Services

Judi Walker

Director, Credential Center

Carol Riley

Facilities Coordinator

Toshie Sweeney

Departments:

Educational Psychology, Administration and Counseling
(ED P, EDAD, LI, and ETEC)

Jana Echevarria, Chair

Liberal Studies (L/ST)

Daniel J. O'Connor, Chair

Single Subject Teacher Education (EDSS)

Steve Turley, University Coordinator

Teacher Education (EDEL, EDMS, and EDSE)

Catherine DuCharme, Chair

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The College of Education (CED) prepares students for professional careers in the field of public and private education.

The College of Education's main purpose is to create and nurture a learning and teaching community committed to excellence in education. We fulfill our purpose by: preparing professionals to be socially responsible leaders; engaging in research and scholarly activity which informs and improves practice; valuing diversity as we work to achieve common

goals; serving and collaborating with schools, agencies, the community and each other; engaging in an inclusive process for planning, communicating, working, and assessing our progress toward our goals.

The College of Education provides undergraduate and graduate studies in education. It offers specific curricula focusing on the preparation of personnel for teaching and educational service in the pre-school, elementary, middle and high schools, community colleges, adult programs, and other educational agencies. In addition to three certificate programs and a variety of teaching and service credentials, the College offers a Bachelor of Arts in Liberal Studies, a Master of Arts in Education degree with various options, and two Master of Science degrees (special education and counseling). All graduate level courses (500/600) in the departments in the College of Education are assumed to be "Letter grade only (A-F)" unless stated otherwise. Descriptions that include prerequisites and requirements for each credential, certificate, and degree program are listed in this *Catalog* in the College of Education department that houses the particular program.

Degree Programs

Bachelor of Arts in Liberal Studies

Master of Arts in Education with Options in:

Educational Administration

Educational Psychology

Educational Technology

Elementary Education

Specialization in Curriculum and Instruction

Specialization in Early Childhood Education

Specialization in Reading and Language Arts

Specialization in Middle Level Education

School Librarianship

Secondary Education

Specialization in Curriculum and Instruction

Specialization in Reading and Language Arts

Social and Multicultural Foundations of Education

Specialization in International/Global Education

Specialization in Language, Literacy, and Culture

Specialization in Race, Class, and Gender Studies

Special Concentration

Master of Science in Special Education

Master of Science in Counseling with Options in:

Career Counseling

Marriage and Family Therapy (MFT)

School Counseling

Student Development in Higher Education

Vocational Rehabilitation Counseling

(discontinuance under consideration)

California Teaching and Service Credentials

Teaching Credentials

Elementary:

- 2042 Preliminary Multiple Subject Credential Program
- Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis
- Multiple Subject Teaching Internship, with Cross-Cultural, Language and Academic Development (CLAD/BCLAD) Emphasis
- Integrated Teacher Education Program (ITEP) (see the Liberal Studies section of this catalog)

Secondary:

- Single Subject Intern Credential
- Single Subject Credential
Art; English (Emphasis in Black Studies, Comparative Literature, Creative Writing, Journalism, Language & Linguistics, Literacy & Composition, Literature, Speech, Theatre Arts); Languages Other than English (French, German, Japanese, Spanish); Health Science; Home Economics; Life Science; Mathematics; Music; Physical Education (Adapted P.E., Elementary School, Secondary School); Physical Science (Chemistry, Earth Science, Physics); Social Science (covering Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology)

Specialist Teaching Credentials

- Adapted Physical Education
- Early Childhood Education
- Reading and Language Arts
- Education Specialist Credential: Mild/Moderate Disabilities (plus Internship)
- Education Specialist Credential: Moderate/Severe Disabilities (plus Internship)

Services Credentials

- Preliminary Administrative
- Professional Administrative
- Library Media Teacher
- Clinical Rehabilitative (Communicative Disorders)
- Health (Nursing)
- School Counseling
- School Counseling Internship
- School Psychology
- School Psychology Internship
- School Social Work and Child Welfare and Attendance

Other Credentials and Authorizations

- Designated Subjects (Adult and Vocational Education, ROTC, Supervision and Coordination)

Graduate Certificates

- Career Guidance Specialist
- Community College

Scholarships

Scholarships are available to undergraduate teacher track, credential and master's students in the College of Education. Scholarship applications are available the first week in November in the Office of Graduate Studies and Research, ED1-07, and should be completed and submitted by the last Friday in February. Scholarship recipients are identified by April 30 and the scholarship funds are awarded in the beginning of the next academic year (i.e., all students applying February 2004 will receive the funding in the academic year beginning in August 2004).

Educational Psychology Clinic

The Educational Psychology Clinic is housed in the College of Education (ED2, Room 155, (562) 985-4991) and serves University and public school students. The primary purpose of the Clinic is to give practicum experience for CSULB students in the areas of school psychology, school counseling career counseling, special education (learning disabilities), elementary and secondary reading and mathematics instruction. The secondary purpose of the Clinic is to serve the wider community in Los Angeles and Orange Counties by providing services to K-12 students and their families in the above areas at a reduced rate. No client is refused who can meet the criteria for acceptance but lacks the finances. Parents also participate in the clinic program through parent education groups in order to become better informed about their children's problems.

Specific services available at the Clinic include: diagnostic testing, counseling, consultation outreach to community, remediation, parent education, and continuing education.

Educational Career Services (ECS)

Located in the College of Education, Educational Career Services assists students and alumni in their search for professional positions in the field of education. ECS serves current student teachers and also provides services to students and alumni seeking positions as school administrators, school counselors, college instructors, school librarians, and school psychologists.

Services offered by ECS include: posting written job vacancy notices, sponsoring jobfairs, conducting job search seminars, providing individual advisement, mailing job vacancy bulletins, and providing information about professional educational opportunities. Appointments may be scheduled with an Educational Career counselor to obtain information about the current job market within the field of education or to receive assistance with resume writing or job interview skills. ECS is located in ED1, Room 67, phone (562) 985-5772. The 24-hour job tape hot line number is (562) 985-5320.

Credential Center

The Credential Center assists CSU, Long Beach students in pursuit of their credential and educational goals. Staff of the Center serve as a campus liaison to the State of California Commission on Teacher Credentialing (CCTC), and coordinate the dissemination of credential information to University staff, faculty, students and the general public.

The Credential Center is responsible for the evaluation, verification, and recommendation of all initial elementary teaching, secondary teaching and specialist service credentials. Candidates completing requirements by the end of the summer or fall term of any year should register with the CC prior to March 1. Spring term candidates should file prior to October

1. Multiple Subject and Single Subject candidates complete this registration process as part of the student teaching application.

The Credential Center provides a University resource of credential requirements and regulations, which includes advisement and program admission for the Professional Clear Single Subject and Multiple Subject Credential Programs (Fifth-Year Programs), advisement for out-of-state and out-of-country credential applicants, and assistance to credentialed teachers seeking renewal information.

The Center is located in ED 1, Room 42, and is open for service Monday through Thursday, from 8:00 to 5:00 pm, and 8:00 to Noon on Friday, unless otherwise posted. The telephone number is (562) 985-4109.

Master's Degree Programs

Master's degree programs are offered in two departments within the College. General procedures, policies, requirements, and applications for the Master of Arts in Education degree are available in each department and are listed following each option and specialization.

The Department of Educational Psychology, Administration and Counseling offers two Master of Science degrees: MS in Counseling, with Options in: Marriage and Family Therapy; School Counseling; Student Development in Higher Education; Career Counseling; and MS in Special Education. One Master of Arts in Education degree is offered with Options in: Educational Administration, Educational Psychology, and Social and Multicultural Foundations of Education.

The Department of Teacher Education offers two Options in the Master of Arts in Education: Elementary Education and Secondary Education. The Elementary Education Option offers four specializations: Curriculum and Instruction, Early Childhood Education, Reading and Language Arts and Middle Level. The Secondary Education Option has two specializations: Curriculum and Instruction and Reading and Language Arts.

To be considered for admission to a master's degree program, students must submit a program application, official transcripts, test scores (if applicable), and any additional program requirements to the College of Education, Office of Graduate Studies and Research. Program applications may vary; please check the individual program for additional requirements. Program Applications may be obtained from the Office of Graduate Studies and Research (ED1 - Rm. 7, 562-985-4547). The individual program application deadline date for School Counseling, Student Development in Higher Education, Marriage and Family Therapy and Special Education is March 1, to be considered for the fall semester. To be considered for the spring semester for Marriage and Family Counseling and Special Education, the individual application deadline date is October 1. Please note, not all programs admit students for the spring semester. For additional program information, please visit the College of Education web site at www.ced.csulb.edu.

Students should consult with faculty in the various departments concerning particular programs and refer to the appropriate department's section of the *Catalog*.

All master's degree candidates in education are required either to complete a thesis or project or to take a comprehen-

sive examination according to the requirements of the degree, degree option, or degree option specialization. Application for enrollment for thesis, project, or comprehensive examination must be made by October 1 for the spring semester or by March 1 for the fall semester.

University Graduate Admission to Master's Programs

Master of Arts in Education

Master of Science in Counseling

Master of Science in Special Education:

To be eligible for conditional admission to the respective College of Education master's degree programs, applicants must meet the following grade-point average (GPA) requirements:

Clear Conditional Admission — To be eligible for clear admission to a master's program in the College of Education, applicants must have a GPA of 2.85 or higher in the last 60 semester or 90 quarter units of course work taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.

Conditional Admission — Applicants who meet all requirements for clear conditional admission except one program requirement may qualify for clear conditional admission by earning a minimum of 3.00 on 12 units of approved course work planned by the student and advisor. Applicants who fail to meet more than one program admission requirement must be recommended by faculty as a promising candidate in order to be conditionally admitted.

NOTE: Individual programs retain the right to determine who is admitted to their programs. Meeting the University requirements for clear conditional or conditional admittance does not guarantee acceptance to the program.

Clear conditional admission to the CED is required for enrollment in 500 and 600 level courses.

Advancement to Candidacy

To be advanced to candidacy for a graduate degree, each student must:

1. Pass the Writing Proficiency Examination (WPE). By University regulation, all applicants must pass the WPE prior to advancement to candidacy;
2. Students must satisfy all general University requirements for advancement to candidacy, as well as the specific requirements for the degree option and specialization;
3. All prerequisites and testing must have been completed, an approved program of studies must have been filed with the College of Education, Office of Graduate Studies and Research, and the student must be currently enrolled;
4. Resolution of all incomplete grades (to either "complete" or "default" grade).
5. The Graduate Record Examination (GRE) is required for the MA in Education Educational Psychology Option only.

ELECTRICAL ENGINEERING

College of Engineering

Department Chair

Fumio Hamano

Department Office

Engineering and Computer Sciences (ECS) 512

Telephone

(562) 985-5102/5103

Website

<http://www.csulb.edu/coe/ee>

Faculty

Professors

James Ary

Radhe Das

Christopher Druzgalski

Fumio Hamano

Kenneth James

Thimias Jordanides

Rajendra Kumar

Slawomir Lobodzinski

Hassan Mohamed-Nour

Nick Panagiotacopoulos

Harnatha Reddy

Alfonso Rueda

Bahram Shahian

Raymond Stefani

Robert Teng

Chit-Sang Tsang

Mahmoud Wagdy

Henry Yeh

Undergraduate Advisor

Hassan Mohamed-Nour

Graduate Advisor

Rajendra Kumar

General Education Advisor

Hassan Mohamed-Nour

Biomedical Engineering Advisors

James Ary, Christopher Druzgalski

Administrative Coordinator

Barbara V. L. Marshall

Students desiring detailed information should contact the department office for referral to one of the faculty advisors.

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Advisory and Development Council

The Department of Electrical Engineering is supported by an Advisory and Development Council consisting 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.

ABET Accreditation

The Bachelor of Science in Electrical Engineering Program is accredited by the Engineering Accreditation Commission (EAC) of the ABET 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7700). Students enrolling in this program are advised to get in touch with the undergraduate advisor for information regarding ABET requirements.

Bachelor of Science in Electrical Engineering (code EE__BS01) (133 units)

The objectives of the Bachelor of Science in Electrical Engineering Program are to give students:

1. a solid foundation in basic science, mathematics, and EE practices and major design skills to maintain high employability, adaptability to changing technology, and an ability to conceive 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 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, micro-electronics, communications, power, and digital systems.

Requirements

Core: CECS 174; EE 200, 201; either EE 210 and 210L or PHYS 152; EE 211, 211L, ENGR 202; MATH 122, 123, 224; MATH 370A or equivalent; PHYS 151, PHYS 254; EE 310, 330. Each of the foregoing courses must be completed with a grade of "C" or better as well as all courses that are prerequisite or

co-requisite to courses required for the major including 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. Other required courses are EE 346, 347, 350, 370, 370L, 380, 382, 386, 400D, 430, 430L, 462 or 464; CE 370 or MAE 330; plus an elective sequence with capstone senior design course as follows:

Analog and Digital Electronics Elective Sequence: either EE 301 and 301L or 435 and 435L; 320, 332, 447; plus additional electives* totaling at least 133 units approved by the department.

Communications Elective Sequence: EE 482, 486, 488A, 488B; plus additional electives* totaling at least 133 units approved by the department.

Controls Elective Sequence: EE 450, 470, 471; plus additional electives* totaling at least 133 units approved by the department.

Digital Signal Processing Sequence: EE 482, 486, 489; plus additional electives* approved by the department totaling at least 133 units.

Power Elective Sequence: EE 450, 452, 458; plus additional electives* totaling at least 133 units approved by the department.

* See undergraduate advisor for the list of approved electives and the number of elective units required.

Bachelor of Science in Engineering Option in Biomedical and Clinical Engineering (code EE__BS02) (135 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 BME 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.

Requirements

CECS 174; CHEM 111A; EE 200, 201, 211, 211L, 310, 330, ENGR 202, MATH 370A; MATH 122, 123, 224; PHYS 151, 152, 254. Each of the foregoing courses must be completed with a grade of "C" or better as well as all courses that are prerequisite or co-requisite to courses required for the major including 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. BIOL 207

(GE category B1a); EE 346, 347, 350, 370, 370L, 382, 406, 406L, either 407 or 408; 430; 460; MAE 330 or CE 370; plus additional approved biomedical electives, including approved senior design course, to at least 135 units.

Certificate in Energy Conversion and Power Systems Engineering (code MAE_CT04)

The 27-unit Certificate Program in Energy Conversion and Power Systems Engineering is an undergraduate program designed to prepare electrical and mechanical engineering students to become proficient in the analysis and design of power generating systems (such as direct conversion, coal burning, hydraulic, nuclear, solar, wind and various other types of power plants and systems, and industrial electric power systems design.

For certificate requirements see the Mechanical and Aerospace Engineering Department section of this catalog.

Master of Science in Electrical Engineering (code EE__MS01)

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 three graduate courses in one area of emphasis, and the remaining courses must augment and support that area of emphasis. Some current examples of areas of emphasis are biomedical, communications, control systems and robotics, digital signal processing, digital systems, electromagnetics and optics, electronics, engineering mathematics, networks and filters, and power. Students may create other areas of emphasis with the approval of the graduate advisor. A limited number of laboratory and teaching assistantships are available to qualified graduate students.

Prerequisites

1. A bachelor's degree from an accredited curriculum in electrical engineering or a bachelor's degree from an accredited engineering, natural science or other appropriate curriculum with the requirement that essential undergraduate deficiencies in electrical engineering are removed prior to Advancement to Candidacy.
2. Graduate students must consult with the graduate advisor and obtain the MSEE Handbook which covers procedures and requirements. A tentative program must be approved by the graduate advisor. That program must exhibit an area of emphasis comprised of at least three related graduate courses (500 or 600 level).
3. The prospective graduate student must have attained a GPA of at least 2.5 for the last 60 semester units (90 quarter units) attempted prior to entry in the MSEE program. The student should apply directly to the University Admissions Office. There is no need to apply to the Department initially. International students should apply through the Center for International Education.

Advancement to Candidacy

1. Fully classified standing (if initially admitted as conditionally classified) by completing all deficiency requirements.
2. Currently enrolled in a regular session.
3. For classified students, removal of all undergraduate deficiencies as determined by the graduate advisor. The GPA must be at least 3.0 for all such courses attempted.

4. Demonstration of competence in technical writing by passing an appropriate writing course with a grade of "C" or better or by providing acceptable proof of technical writing ability. This requirement can be waived for thesis students upon recommendation of the graduate advisor and the thesis advisor.
5. Passing the Writing Proficiency Exam.
6. Completion of at least 9 units as a graduate student in residence while maintaining an overall GPA of at least 3.0 and a major GPA of at least 3.0. Students are advised strongly to seek advancement before completing 15 units of the program.

Requirements

EE core courses consist of the following: EE 501, 508, 509, and 511. Students must select at least 2 out of the above 4 courses appropriate to their area of emphasis and subject to the approval of the Graduate Advisor. Completion of a minimum of 30 units in 400-, 500- or 600-level courses as approved in advance by the graduate advisor. Students must choose either the thesis or nonthesis alternatives. Successful completion of a thesis provides a unifying culmination to the program and an enhanced resume for future industrial or academic endeavor.

Thesis Alternative: EE 500/600 including the above core requirement (15 units); EE 697 (3 units); EE 698 (6 units); EE 400/500/600 (6 units); Comprehensive Oral Exam on Thesis.

Non-Thesis Alternative: EE 500/600 including the above core requirement (24 units); EE 400/500/600 (6 units); Comprehensive Oral Exam on MSEE Program.

Courses (E E)

Lower Division

200. Trends in Electrical Engineering (1)

Electrical Engineering as a profession. Nature of professional and design activities. Advances in Electrical Engineering. Current designs, future trends and challenges in various fields of Electrical Engineering. (Lecture 1 hour.) Letter grade only (A-F).

201. Digital Logic Design (4)

Prerequisite: MATH 117 (or equivalent). Practical design of digital circuits. Basic topics in combinational and sequential switching circuits with applications to the design of digital devices. (Lecture-problems 4 hours.)

210. Fundamentals of Electric Circuits (3)

Prerequisites: MATH 123, PHYS 151. Electric fields. Magnetic fields. Ohm's law. Kirchoff's laws. Physics of inductance and capacitance. Conservation of energy. Introduction to RL, RC and RLC circuits. Introduction to phasors. Introduction to electric machinery, computer electronics, electromagnetic radiation, and communication. (Lecture-problems 3 hours) Letter grade only (A-F).

210L. Fundamentals of Electric Circuits Laboratory (1)

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 or PHYS 152, MATH 224. Linear circuit analysis techniques including circuit transformations, mesh and node analyses. Thevenin's, Norton's, Superposition, and Maximum Power Transfer theorems. Transient analysis of RL, RC and RLC circuits. Phasors. Power concepts. Nonlinear circuits including diodes. Circuit solution using PSpice. (Lecture-problems 3 hours) Letter grade only (A-F). (211, CAN ENGR 12; EE 211+211L, CAN ENGR 6)

211L. Electric Circuits Laboratory (1)

Corequisite: EE 210 or EE 211. Laboratory investigation of Ohm's Law, Kirchoff's Laws, voltage and current division, mesh and nodal analysis, Thevenin and Norton equivalents, superpositions, simple RL, RC, RLC circuits, phasors, power. Instrumentation using voltmeter, ammeters, ohmmeters and oscilloscopes. Power Measurements. 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. 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. (Lecture-problems 3 hours.) Letter grade only (A-F).

Upper Division

All 300- through 700-level courses are Letter grade only (A-F) unless otherwise stated.

301. Sequential Circuit Design (3)

Prerequisite: EE 201. Synthesis of sequential circuits. Asynchronous sequential circuits, algorithmic state machines, hardware design languages, sequential circuit design using programmable logic devices. (Lecture-problems 3 hours)

301L. Sequential Circuit Design Laboratory (1)

Prerequisite or Corequisite: EE 301. Design implementation and verification of digital systems using medium scale integrated and large scale integrated circuits. (Laboratory 3 hours)

310. Signals and Systems (3)

Prerequisites: EE 210 or 211; and MATH 370A or equivalent. Fundamental concepts of signals and systems. Laplace Transforms. Fourier Series. Fourier Transforms. Two-port parameters. (Lecture-problems 3 hours).

320. Solid State Electronic Devices (3)

Prerequisite: PHYS 254. Semiconductor crystal structure and growth. Carrier modeling, drift and diffusion currents. P-N junctions, diodes, solar cells and light-emitting diodes (LED). Bipolar junction transistor (BJT) biasing, linear and switched operation. Metal oxide semiconductor field effect transistor (MOSFET) operation. (Lecture-problems 3 hours).

330. Analog Electronic Circuits I (4)

Prerequisite: EE 211. Analysis and design of diode, bipolar junction transistor, field-effect transistor (MOSFET and JFET), and CMOS circuits. Op-Amp linear and nonlinear circuit applications. Laboratory includes transistor and operational amplifier circuit design and CAD tools. (Lecture-problems 3 hours, laboratory 3 hours.)

330L. Analog Electronics Laboratory I (1)

Prerequisite or Corequisite: EE 330. Transistor and operational amplifier circuit design laboratory. (Lab 3 hrs)

331. Mixed Signal Electronics (3)

Prerequisites: CECS 201, EE 210, 210L. (Not open to EE majors) Analysis and design of digital electronic circuits. Operation of bipolar and MOS transistors. NMOS, CMOS and bipolar transistor inverters, NAND gates and NOR gate. Interfacing digital circuits with external devices. D/A and A/D converters. Mechatronics. (Lecture 2 hrs, laboratory 3 hrs)

332. Digital Electronic Circuits (3)

Prerequisites: EE 201, 211, 320. Analysis and design of digital electronic circuits. Structure and operation of MOS transistors, including SPICE models. NMOS and CMOS inverters. Bipolar transistor inverters. Bipolar digital gate circuits (TTL & ECL). Regenerative logic circuits (flip-flop, Schmitt trigger, multivibrator). Semiconductor memories. Basic IC design-Gate Array, Standard Cell, PLA. (Lecture-problems 3 hrs)

346. Microprocessor Principles and Applications (3)

Prerequisites: CECS 174, EE 201. Study of microprocessor and microcomputer elements for applications of these devices to practical problems. Assembly language programming. Design of microprocessor based systems using 80X86 architecture. (Lecture-problems 2 hours, laboratory 3 hours.)

347. Microprocessor Based System Design (3)

Prerequisite: EE 346. Design and construction of a microprocessor based system. Interfacing and control of external devices. (Lecture-problems 2 hours, laboratory 3 hours.)

350. Energy Conversion Principles (3)

Prerequisites: EE 211 and 211L, or consent of instructor. Electro-mechanical energy conversion. Power transformers. DC, synchronous, and induction machines. Laboratory experiments on power electronics and rotating machinery. (Lecture-problems 2 hours, laboratory 3 hours.)

350L. Energy Conversion Laboratory (1)

Prerequisite: EE 350. Testing and performance validation of electric, electronic, electrochemical and electromechanical components and apparatus. (Laboratory 3 hours.)

370. Control Systems (3)

Prerequisites: EE 310. Control systems analysis; block diagrams, signal flow graphs, stability criteria, root locus, frequency domain analysis. Examples of classical control system design. (Lecture-problems 3 hours.)

370L. Control Systems Laboratory (1)

Prerequisite: EE 370. Experiments which reinforce concepts learned in EE 370. Digital simulation modeling, analysis, and design. Real time applications. (Laboratory 3 hours.)

380. Engineering Probability and Statistics (3)

Prerequisites: EE 310. Introduction to probability, statistics, random variables and their application. Not open to students with credit in EE 480. (Lecture-problems, computer projects 3 hrs.)

382. Communication Systems I (3)

Prerequisite: EE 310. 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. (Lecture-problems 2 hours, laboratory 3 hours.)

386. Digital Signal Processing (3)

Prerequisite: EE 310 or CECS 311 or CECS 325. Study of continuous-time signals and systems, and the corresponding discrete-time signals and systems. Z-transform analysis. Sampling theorem, analog-digital and digital-analog conversion approximation. Analysis and design of digital filters. Laboratory projects with Computer Aided Design (CAD) tools for implementing digital systems including Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) filters. (Not open to students with credit in EE 485). (Lecture-problems 2 hours, laboratory 3 hours.)

*400D. Electrical Engineering Design Seminar and Project (2)

Prerequisites: EE 347, 370, and 382; or permission of instructor. Design terminologies, processes and issues. Simple design examples. Constraints imposed by factors such as performance, economics, reliability, safety, aesthetics, packaging, codes, standards and practices. Ethics and social and environmental impact. Case studies. Open-ended solution. Specification and schedule of design projects. Individual and group projects. Oral presentation required. (Lecture-problems 1 hour, laboratory 3 hours)

*401. Mathematical Methods for Electrical Engineers (3)

Prerequisite: MATH 370A. Analytic techniques relevant to electrical engineering. (Lecture-problems 3 hours.)

*405. Special Topics in Electrical Engineering (3)

Prerequisites: Senior standing in electrical engineering or consent of instructor. Selected topics from recent advances in electrical engineering. Course content will vary from year to year and may be repeated once for credit with the consent of the department undergraduate advisor. (Lecture-problems 3 hours)

*406. Medical Instrumentation and Measurements (3)

Prerequisite: EE 330 or consent of instructor. Design and analysis of medical instruments, electrodes and amplifiers for measurement of physiological signals. (Lecture-problems 3 hours)

*406L. Biomedical Engineering Laboratory (1)

Prerequisite or corequisite: EE 406. Laboratory study of medical instrumentation, transducers and computer data processing. (Laboratory 3 hours.)

*407. Applications of Computers in Medicine (3)

Prerequisites: EE 346 or consent of instructor. Principles of analysis and design of computers and data collection equipment for real-time on-line medical systems. (Lecture-problems, computer projects 3 hours)

*408. Health Care Delivery Systems Engineering (3)

Prerequisites: EE 406 or 407. Applications of engineering in health care delivery systems. Classroom and hospital studies of clinical engineering. Professional aspects of biomedical engineering including engineering support of medical care, employment practices and ethics. (Lecture-problems 3 hours.)

*410. Analog Filter Design (3)

Prerequisites: EE 310. Theory and design of active filters using operational amplifiers. Emphasis is placed on low-pass filters. (Lecture-problems 3 hours)

411./511. Linear Systems Analysis (3)

Prerequisites: EE 370. Review of matrices and linear algebra. Z-transforms and difference equations. 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. Additional projects required for EE 511. (Lecture-problems 3 hours.) Letter grade only (A-F).

428./528. Speech Signal Processing (3)

Prerequisite: EE 386 or consent of the instructor. Principles and engineering applications of speech signal processing. Speech synthesis, recognition, encoding, and compression. Applications of neural networks. Additional projects required for EE 528. (Lecture-problems 3 hours.)

*430. Analog Electronic Circuits II (3)

Prerequisites: EE 330, 370; Prerequisite or Corequisite: EE 330L. 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. (Lecture-problems 3 hours.)

*430L. Analog Electronics Laboratory II (1)

Corequisite: EE 430. Advanced transistor, operational amplifier, and linear-integrated circuits and systems design laboratory. Not open to students with credit in EE 433L. (Laboratory 3 hours)

*432. Design of Analog Circuits and Systems (3)

Prerequisites: EE 400D, 430. Corequisite: EE 410. Extensive laboratory projects. Building blocks such as practical amplifiers, transducers, signal sources, nonlinear circuits, phase-locked loops, D/A and A/D converters, ASICs. Noise. Computer-aided system design. (Lecture-problems 2 hours, laboratory 3 hours.)

434./534. Mixed-Signal IC Design (3)

Prerequisites: EE 201 and EE 330, or 331, or consent of the instructor. CMOS fabrication. Component layout. MOSFET modeling. Mixed-signal devices such as D/A and A/D converters and phase-locked loops. Substrate Noise coupling. System-on-chip considerations. Design using CAD tools. Additional projects required for EE 534. (Lecture-problems 2 hours, Laboratory 3 hours.)

*435. Microelectronics (3)

Prerequisites: EE 201, EE 330. Microelectronic fabrication processes and characterization of devices. Full custom design examples with small scale integration of bipolar, NMOS and CMOS devices, both analog and digital formats. (Lecture-problems 3 hours) Not open to students with credit in EE 420.

*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. (Laboratory 3 hours.) Not open to students with credit in EE 420L.

436./536. Microfabrication and Nanotechnology (3)

Prerequisites: EE 330 and (EE 320 or PHYS 254); or MAE 300. In this course the techniques and the 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 the latest technology will be demonstrated. Additional projects required for EE 536. (Lecture-problems 3 hours.)

445./545. Computer Networks (3)

Prerequisite: EE 482 or consent of instructor. Design and analysis of computer communication networks including their topologies, architectures, protocols, and standards. Local area, baseband and broadband are covered as well as the use of fiber optics. Additional projects required for EE 545. (Lecture-problems 3 hours.)

446./546. Advanced Microprocessors and Embedded Controllers (3)

Prerequisites: EE 346 and 347 or consent of the instructor. Advanced microprocessors including 32 bit 386, 486, Pentium and 64 bit Itanium. Hardware features and new instructions. Support for virtual memory, paging, privilege levels, multitasking and internal cache. Floating Point coprocessors. Embedded controllers, on-chip resources, and applications. Additional projects required for EE 546 (Lecture - problems 3 hours).

***447. Design of Electronic Systems (3)**

Prerequisites: EE 301 or 435, 346, 400D, 430. Extensive laboratory projects. Design of analog and digital systems. Computer-aided design including, for example, hardware descriptive language (HDL) and SPICE. (Lecture-problems 2 hours, laboratory 3 hours.)

***450. Electronic Control of Motors (3)**

Prerequisites: EE 350, 370. Multidisciplinary coverage of motor control. 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. Transient and steady-state motor control. Uninterruptible power supplies and adjustable speed drives. (Lecture-problems 3 hours.)

***452. Computer Applications in Power Systems (3)**

Prerequisite: EE 350, or consent of instructor. 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.)

453./553. Protection of Power Systems (3)

Prerequisites: EE 310, 350. 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.)

455./555. Space Electric Power Systems (3)

Prerequisites: EE 330, EE 350. A comprehensive treatment of characteristics of and requirements imposed by missions on spacecraft power systems, power sources, power conversion and control. Energy storage, electrical equipment, power converters and loads, power management. Effects of environment, future space missions and technological needs. Additional projects required for EE 555. (Lecture-problems 3 hours.)

***458. Design of Power System Components (3)**

Prerequisites: EE 330, 400D, and either 450, 452, or 453. Design of electrical, electronic and electromechanical components required for power conversion, control, transmission, distribution, protection and measurements in terrestrial and space electric power systems. (Lecture-problems 2 hours, laboratory 3 hours.)

***460. Electromagnetic Fields (3)**

Prerequisites: EE 310. Electric and magnetic field theory including propagation of planewaves in lossless and dissipative media. Maxwell's equations. Transmission lines. (Lecture-problems 3 hours.)

***462. Electromagnetics and Applications to Wireless Systems (3)**

Prerequisite: EE 310. Electromagnetic field theory including transmission lines, vector fields, electrostatics and magnetostatics. Maxwell's equations and plane wave propagation. Waveguides and microstrip-RF circuit principles and devices. Radiation and antenna

design. Wireless communication systems including satellite and cell-phone technologies. Not open to students with credit in EE 460 or 464. (Lecture-problems 2 hours, laboratory 3 hours.)

***464. Electromagnetics and Applications to Electro-Optics (3)**

Prerequisite: EE 310. Electromagnetic field theory including transmission lines, vector fields, electrostatics and magnetostatics. Maxwell's equations and plane wave propagation. Electromagnetic formulation of geometric and Fourier optics. Semiconductor and gas laser applications to fiber-optic communication systems and electro-optic devices. Not open to students who have credit in EE 460 or 462. (Lecture-problems 2 hours, laboratory 3 hours.)

***470. Digital Control (3)**

Prerequisites: EE 370L, 386. 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) Traditional grading only.

***471. Design of Control Systems (3)**

Prerequisite: EE 400D. Corequisite: EE 470. Design of compensators using root-locus and Bode-plot methods. Design of state-space control systems and observers. Computer-aided design. (Lecture-problems 2 hours, laboratory 3 hours.)

474./574. Robot Dynamics and Control (3)

Prerequisite: EE 511 or consent of instructor. 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. Additional projects required for EE 574. (Lecture-problems 3 hours.)

476./576. Neural Networks and Fuzzy Logic (3)

Prerequisite: EE 386 or consent of instructor. (Not open to students with credit in EE 589/689.) Principles and application of artificial neural networks and fuzzy logic. Mechanisms of supervised and unsupervised neural networks. Fuzzy control systems. Applications in signal processing, communications, control, and other areas. Additional projects required for EE 576. (Lecture-problems 3 hours). Letter grade only (A-F).

481./581. Satellite Communication Systems (3)

Prerequisite: EE 482. 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.)

***482. Communication Systems II (3)**

Prerequisites: EE 382. 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)

***483. Digital Image Processing (3)**

Prerequisites: MATH 370A. Image formation. Image detectors and their characteristics. Perception, image models. Sampling and quantization. Pixel relationships. Statistical characterization of discrete images - probability density models. Image fidelity criteria and image intelligibility. Image transforms. Image enhancement techniques. (Lecture-problems 3 hours)

***486. Digital Signal Processing for Multimedia Communications (3)**

Prerequisite: EE 386. Digital signal processing and computation and analysis techniques. Discrete and fast Fourier transforms, discrete Hilbert transform, periodogram, spectrum and cepstrum analyses, and homomorphic deconvolution. Introduction to multi-rate signal processing. Projects with Computer Aided Design (CAD) tools for implementing DSP applications such as data compression, single sideband modulation, binary spread spectrum, and adaptive line enhancer. (Lecture-problems 2 hours, laboratory 3 hours.)

***488A. Communication Systems Design I (3)**

Prerequisite or Corequisite: EE 400D, EE 430, EE 430L. Design of Communication systems/subsystems and their implementation in software and hardware. (Lecture-problems 2 hours, laboratory 3 hours.)

***488B. Communication Systems Design II (3)**

Prerequisite: EE 488A. Design of Capstone Senior Project in the area of Communication systems. (Lecture-problems 1 hour, laboratory 2 hours)

***489. Digital Signal Processing Design (3) S**

Prerequisites: EE 386, EE 400. Corequisite: EE 486. Design of digital filters, including Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) filters. Design of digital signal processing systems and the implementation of digital filters with digital signal processors in real time. (Lecture-problems 2 hours, laboratory 3 hours.)

***490. Special Problems (1-3)**

Prerequisite: Consent of instructor. Assigned topics in technical literature or laboratory projects and reports on same. May be repeated for a total of six units.

Graduate Level

505./605. Advanced Engineering Mathematics for Electrical Engineers (3)

Prerequisites: EE 401 or equivalent or consent of the instructor. (Master's students register in EE 505; Ph.D. students register in EE 605.) Boundary-value problems and generalized Fourier (or eigenfunction) expansions. Review of Fourier series. Fourier transforms (FT, FFT and STFT), wavelet transform and its computer implementation. The Z-transform. The Hilbert transform. Solutions of partial differential equations using the methods of separation of variables, Laplace, Fourier and wavelet transforms, conformal mapping, numerical (finite difference, finite element), and experimental techniques. Additional projects required for EE 605. (Lecture-problems 3 hours.)

506./606. Theory and Practice of Biomedical Instrumentation (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of the instructor. (Master's students register in EE 506; Ph.D. students register in EE 606.) Advanced design concepts and practical utilization of biomedical instrumentation. Transduction of physiological parameters. Theory and practice. Additional projects required for EE 606. (Lecture-problems 3 hours.)

507./607. Advanced Biomedical Systems (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of the instructor. (Master's students register in EE 507; Ph.D. students register in EE 607.) Novel trends in biotechnology, design and organization of modern hospital systems and utilization of advanced technologies. Modeling and simulation of physiological and medical systems. Additional projects required for EE 607. (Lecture-problems 3 hours.)

508. Probability Theory and Random Processes (3)

Prerequisites: EE 380. 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)

509. Network Theory (3)

Prerequisites: EE 386, 410 or 430. 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.)

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.)

511./411. Linear Systems Analysis (3)

Prerequisite: EE 370. Review of matrices and linear algebra. Z-transforms and difference equations. 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. (Lecture-problems 3 hours.)

514. Advanced Circuit Synthesis and Design (3)

Prerequisite: EE 510. 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.)

527. Digital Filter Design and Audio Processing (3)

Prerequisite: EE 486 or consent of instructor. Frequency and time domain analysis using FFT, FIR, and IIR filter design and implementation techniques. Principles of digital audio processing, compression/decompression. Applications of audio coding standards, such as MPEG audio and G.729. (Lecture-problems 3 hours.) Not open to students with credit in EE 513.

528./428. Speech Signal Processing (3)

Prerequisite: EE 386 or consent of the instructor. Principles and engineering applications of speech signal processing. Speech synthesis, recognition, encoding, and compression. Applications of neural networks. Additional projects required for EE 528. (Lecture-problems 3 hours.)

531. CMOS Electronics (3)

Prerequisite: EE 430. 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.)

532./632. Analog Signal Processing (3)

Prerequisite: EE 430 or consent of the instructor. (Master's students register in EE 532; Ph.D. students register in EE 632.) 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, comparators, D/A and A/D converters. Advanced techniques for corrections of nonideal behavior. Analysis and simulation projects. Additional projects required for EE 632. (Lecture-problems 3 hours.)

533./633. Quantum and Optical Electronics (3)

Prerequisites: EE 430 and 460 or equivalent. (Master's students register in EE 533; Ph.D. students register in EE 633.) 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. Additional projects required for Ph.D. students. (Lec-prob 3 hrs)

534./434. Mixed-Signal IC Design (3)

Prerequisites: EE 201 and EE 330, or 331, or consent of the instructor. CMOS fabrication. Component layout. MOSFET modeling. Mixed-signal devices such as D/A and A/D converters and phase-locked loops. Substrate Noise coupling. System-on-chip considerations. Design using CAD tools. Additional projects required for EE 534. (Lecture-problems 2 hours, Laboratory 3 hours.)

535. VLSI Design (3)

Prerequisite: EE 430. Techniques for designing Very Large Scale Integrated (VLSI) circuits using n-channel metal oxide semiconductors (n-MOS). (Lecture-problems 3 hours). Not open to students with credit in EE 520.

536./436. Microfabrication and Nanotechnology (3)

Prerequisites: EE 330 and (EE 320 or PHYS 254); or MAE 300. In this course the techniques and the 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 the latest technology will be demonstrated. Additional projects required for EE 536. (Lecture-problems 3 hours.)

540. Advanced Digital System and Computer Architecture (3)

Prerequisite: EE 446 or consent of instructor. High level computer architectures including studies of supercomputers, array processors, parallel processing, direct execution computers. (Lecture-problems 3 hr.)

545./445. Computer Networks (3)

Prerequisite: EE 482 or consent of instructor. Design and analysis of computer communication networks including their topologies, architectures, protocols, and standards. Local area, baseband and broadband are covered as well as the use of fiber optics. Additional projects required for EE 545. (Lecture-problems 3 hours.)

546./446. Advanced Microprocessors and Embedded Controllers (3)

Prerequisites: EE 346 and 347; or consent of the instructor. Advanced microprocessors including 32 bit 386, 486, Pentium and 64 bit Itanium. Hardware features and new instructions. Support for virtual memory, paging, privilege levels, multitasking and internal cache. Floating Point coprocessors. Embedded controllers, on-chip resources, and applications. Additional projects required for EE 546 (Lecture - problems 3 hours).

550. Power Electronics and Applications (3)

Prerequisites: EE 350 and 430. 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.)

551. Theory and Applications of DC/DC Converters (3)

Prerequisite: EE 550 or consent of instructor. Modeling, analysis, design and application of DC/DC switch-mode converters. (Lec-prob 3 hrs.)

552. Electric Machines and Robotic Applications (3)

Prerequisites: EE 370, 452 or consent of instructor. Applications and design of small electric machines including stepper and brushless DC motors with emphasis on robotic control. Performance characteristics of electric machines interfacing with robotic systems. (Lecture-problems 3 hours.)

553./453. Protection of Power Systems (3)

Prerequisites: EE 310, 350. 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.)

555./455. Space Electric Power Systems (3)

Prerequisites: EE 330, EE 350. A comprehensive treatment of characteristics of and requirements imposed by missions on spacecraft power systems, power sources, power conversion and control. Energy storage, electrical equipment, power converters and loads, power management. Effects of environment, future space missions and technological needs. Additional projects required for EE 555. (Lecture-problems 3 hours.)

563. Microwave Engineering (3)

Prerequisite: EE 462. Propagation of guided waves in lossless and dissipative media. Radiation and antenna design. Waveguides, microstrip, microwave circuits. (Lecture-problems 3 hours.)

565. Photonics (3)

Prerequisite: EE 464. Maxwell's equations applied to electro-optic devices and systems. Electromagnetic formulation of geometrical and Fourier optics. Topics include optics in semiconductors, fiber optics and integrated optics, lasers and holography. (Lecture-problems 2 hours, laboratory 3 hours.)

568./668. Wavelet Theory and Applications (3)

Prerequisites: EE 505, and one of the following computer languages: MATLAB, C++, JAVA, or consent of the instructor. (Master's students register in EE 568; Ph.D. students register in EE 668.) Justification of the need for wavelets. Continuous wavelet transforms (CWT), multiresolution analysis (MRA), and filter banks will be extensively discussed. Applications to: digital signal processing (including time-frequency analysis), image processing (including data compression), communications, biomedical engineering, and other fields will be presented. Computer implementation of various algorithms will be carried out in a computer laboratory environment. Additional projects required for EE 668. (Lecture-problems 2 hours, laboratory 3 hours.)

569D./669D. Data Compression (3)

Prerequisite: One of the following computer languages: MATLAB, C++, JAVA, or consent of the instructor. (Master's students register in EE 569D; Ph.D. students register in EE 669D.) Justification of the need for data compression. Lossy and Lossless compression and a comparison between the currently used compression methods with the new ones, such as wavelets, will be presented and dis-

cussed extensively. Transformation, quantization and coding methods will be the basis for this course. Computer data compression algorithms will be implemented in a computer laboratory environment. Additional projects required for EE 669D. (Lecture-problems 2 hours, laboratory 3 hours.)

574./474. Robot Dynamics and Control (3)

Prerequisite: EE 511 or consent of instructor. 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. Additional projects required for EE 574. (Lecture-problems 3 hours.)

576./476. Neural Networks and Fuzzy Logic (3)

Prerequisite: EE 386 or consent of instructor. (Not open to students with credit in EE 589/689.) Principles and application of artificial neural networks and fuzzy logic. Mechanisms of supervised and unsupervised neural networks. Fuzzy control systems. Applications in signal processing, communications, control, and other areas. Additional projects required for EE 576. (Lecture-problems 3 hours.) Letter grade only (A-F).

580. Statistical Communication Theory (3)

Prerequisites: EE 482, 505 and 508 or consent of instructor. Power spectral density of analog and digital communication signals. Matched filters. Signal-to-noise-ratio performance analysis for analog and pulse modulation systems. Vector space representation of digital signals. Error rate analysis for various signaling formats. Optimum digital receivers. Fading channels. (Lecture-problems 3 hours.)

581./481. Satellite Communication Systems (3)

Prerequisite: EE 482. 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.)

582. Spread Spectrum Communication Systems (3)

Prerequisite: EE 580 or consent of instructor. Spread spectrum (SS) techniques. Direct sequence systems, frequency hopped systems. Generation and correlation properties of pseudo random sequences. Electronic jamming and interference. Processing gain against interference, carrier synchronization, code acquisition and tracking, information modulation and coding. Total SS system design considerations. Applications include ranging, combating multipath effects, code division multiple accessing in mobile satellite and cellular communication systems. (Lecture-problems 3 hours.)

583./683. Digital Image Processing (3)

Prerequisite: EE 505 or consent of the instructor. (Master's students register in EE 583; Ph.D. students register in EE 683.) Acquiring Images. Correcting Imaging defects. Image enhancement. Segmentation and thresholding. Processing Binary images. Tomography. Three dimensional Imaging. Some image data compression techniques. Additional projects required for EE 683. (Lecture-problems 3 hours.)

585./685. Advanced Digital Signal Processing (3)

Prerequisite: EE 482 or EE 486 or consent of the instructor. (Master's students register in EE 585; Ph.D. students register in EE 685.) Advanced topics in digital signal processing and applications including adaptive filters, spectral estimation and multimedia standards: JPEG, MPEG. State space description of linear discrete time systems. Additional projects for EE 685. (Lecture-problems 3 hours.)

586. Real-Time Digital Signal Processing (3)

Prerequisite: EE 486, EE or CECS 440, 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.)

590. Special Topics in Electrical Engineering (3)

Prerequisites: Graduate standing in electrical engineering and consent of instructor. Selected topics from recent advances in electrical engineering. Course content will vary from year to year. Topics will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units. (Lecture-problems 3 hours.)

605./505. Advanced Engineering Mathematics for Electrical Engineers (3)

Prerequisites: EE 401 or equivalent or consent of the instructor. (Master's students register in EE 505; Ph.D. students register in EE 605.) Boundary-value problems and generalized Fourier (or eigenfunction) expansions. Review of Fourier series. Fourier transforms (FT, FFT and STFT), wavelet transform and its computer implementation. The Z-transform. The Hilbert transform. Solutions of partial differential equations using the methods of separation of variables, Laplace, Fourier and wavelet transforms, conformal mapping, numerical (finite difference, finite element), and experimental techniques. Additional projects required for EE 605. (Lecture-problems, 3 hours.)

606./506. Theory & Practice of Biomedical Instrumentation (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of the instructor. (Master's students register in EE 506; Ph.D. students register in EE 606.) Advanced design concepts and practical utilization of biomedical instrumentation. Transduction of physiological parameters. Theory and practice. Additional projects required for EE 606. (Lecture-problems 3 hours.)

607/507. Advanced Biomedical Systems (3)

Prerequisites: Graduate standing in engineering or natural sciences and either EE 406 or consent of the instructor. (Master's students register in EE 507; Ph.D. students register in EE 607.) Novel trends in biotechnology, design and organization of modern hospital systems and utilization of advanced technologies. Modeling and simulation of physiological and medical systems. Additional projects required for EE 607. (Lecture-problems 3 hours.)

610. Seminar in Circuit Theory and Design (3)

Prerequisites: EE 509 and EE 510 or EE 527. Intensive study of current professional literature and recent techniques related to circuit theory. (Seminar 3 hours.) Course may be repeated to a maximum of 6 units with different topics.

632./532. Analog Signal Processing (3)

Prerequisite: EE 430 or consent of the instructor. (Master's students register in EE 532; Ph.D. students register in EE 632.) 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, comparators, D/A and A/D converters. Advanced techniques for corrections of nonideal behavior. Analysis and simulation projects. Additional projects required for EE 632. (Lecture-problems 3 hours.)

633./533. Quantum and Optical Electronics (3)

Prerequisites: EE 430 and 460 or equivalent. (Master's students register in EE 533; Ph.D. students register in EE 633.) 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. Additional projects required for Ph.D. students. (Lecture-problems 3 hours.)

668./568. Wavelet Theory and Applications (3)

Prerequisites: EE 505, and one of the following computer languages: MATLAB, C++, JAVA, or consent of the instructor. (Master's students register in EE 568; Ph.D. students register in EE 668.) Justification of the need for wavelets. Continuous wavelet transforms (CWT), multiresolution analysis (MRA), and filter banks will be extensively discussed. Applications to: digital signal processing (including time-frequency analysis), image processing (including data compression), communications, biomedical engineering, and other fields will be presented. Computer implementation of various algorithms will be carried out in a computer laboratory environment. Additional projects required for EE 668. (Lecture-problems 2 hours, laboratory 3 hours.)

669D./569D. Data Compression (3)

Prerequisite: One of the following computer languages: MATLAB, C++, JAVA, or consent of the instructor. (Master's students register in EE 569D; Ph.D. students register in EE 669D.) Justification of the need for data compression. Lossy and Lossless compression

and a comparison between the currently used compression methods with the new ones, such as wavelets, will be presented and discussed extensively. Transformation, quantization and coding methods will be the basis for this course. Computer data compression algorithms will be implemented in a computer laboratory environment. Additional projects required for EE 669D. (Lecture-problems 2 hours, laboratory 3 hours.)

670. Seminar in Control Systems (3)

Study of selected topics in the areas of synthesis and design of optimum control systems. (Seminar 3 hours.)

675./775. Non-Linear Control Systems (3)

Prerequisite: EE 511 or consent of instructor. (Master's students register in EE 675; Ph.D. students register in EE 775.) Methodologies and results dealing with stability and robust stabilization of nonlinear systems which can be applied to robotics, aerospace, artificial neural network, circuit theory etc. Phase plane analysis and limit cycles, Lyapunov stability theory and its extension. Positive real transfer matrix and passive systems, feedback linearization, feedback stabilization and tracking and robust control. Additional projects for EE 775 students. (Lecture-problems 3 hours.)

683./583. Digital Image Processing (3)

Prerequisite: EE 505 or consent of the instructor. (Master's students register in EE 583; Ph.D. students register in EE 683.) Acquiring Images. Correcting Imaging defects. Image enhancement. Segmentation and thresholding. Processing Binary images. Tomography. Three dimensional Imaging. Some image data compression techniques. Additional projects required for EE 683. (Lecture-problems 3 hours.)

685./785. Advanced Digital Signal Processing (3)

Prerequisite: EE 482 or EE 486 or consent of the instructor. (Master's students register in EE 585; Ph.D. students register in EE 685.) Advanced topics in digital signal processing and applications including adaptive filters, spectral estimation and multimedia standards: JPEG, MPEG. State space description of linear discrete time systems. Additional projects for EE 685. (Lecture-problems 3 hours.)

697. Directed Research (1-3)

Prerequisites: Graduate Standing. Theoretical and experimental problems in electrical engineering requiring intensive analysis.

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.

775./675. Non-Linear Control Systems (3)

Prerequisite: EE 511 or consent of instructor. (Master's students register in EE 675; Ph.D. students register in EE 775.) Methodologies and results dealing with stability and robust stabilization of nonlinear systems which can be applied to robotics, aerospace, artificial neural network, circuit theory etc. Phase plane analysis and limit cycles, Lyapunov stability theory and its extension. Positive real transfer matrix and passive systems, feedback linearization, feedback stabilization and tracking and robust control. Additional projects for EE 775 students. (Lecture-problems 3 hours.)

ENGLISH

College of Liberal Arts

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For information about programs of study in the Department of English, the department office can refer students to one of the coordinating faculty advisors: Undergraduate, Graduate, MFA, English Education, Composition, Creative Writing, Literature, Technical and Professional Communication, and the American Language Program. 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. Students should establish a file folder in the department when they first appear for major advising. Unofficial transcripts from other institutions are needed to establish continuity, waive requirements, or substitute equivalent courses.

In the discipline of English, the department's teaching-learning emphasis is on developing and sustaining each student's own critical reasoning, imagination, and expressive skills, including clarity, coherence, and respect for truth and meaning. Just as literature broadens and deepens one's experience of life, the study and practice of language and writing sharpen and clarify one's thinking. Learning to see and to seek out expressive possibilities of language in fiction, drama, poetry, essays, and the mass media also adds dimension and meaning to the experiences of life.

The course of study for the undergraduate English major enlarges the literary background of students and prepares them for graduate study, teaching, or careers in business, law, and other professions.

In all options for the major, study of a foreign language is recommended. Ideally, acquaintance with a foreign language should begin before University study, but a student can also gain a great deal by beginning language study at the university level and continuing it through upper-division courses. Because most advanced degrees require knowledge of at least one foreign language, students aiming at such degrees should definitely include language study in their undergraduate programs.

Bachelor of Arts in English

While planning a program of courses for the major in English, a student should consider the opportunities and limitations of the different options detailed below. For each option, official Program Planners are available in the department office. They require faculty consultation and approval for a graduation audit, but students should also consult department faculty for advising when choosing a program in English and regularly after making that choice.

For all options, the major in English consists of at least 41 units. Because ENGL 100 satisfies a University general education requirement, it 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 other courses outside English. Because some courses meet requirements in several options, many students can change options with no great loss of credit toward the required total.

In rare instances, a student may accelerate completion of the major in English by taking advantage of the department's credit by examination policy. Certain courses may also be waived or substituted for under certain circumstances. Consult a department advisor for the option concerned.

Option in Creative Writing (code ENGLBA02) (120 units)

The Creative Writing option is designed for students who wish to write, as well as study, fiction, poetry, plays, or media scripts. Exposure to traditional and recent literature is also of significant value for anyone seeking to master the forms and conventions of writing creatively for the literary marketplace. (Students seeking a Secondary Credential should complete the Creative Writing emphasis of the English Education Option).

This option consists of 41 units, 26 of which must be upper division, including the following:

Lower Division: ENGL 184; 204, 205 or 206; 250A,B.

Upper Division: nine units in creative writing chosen from ENGL 404, 405, 406, 407, 408, 499, FEA 404, 408, THEA 380, 480; three classes chosen from the following classes in recent literature, literary genres, and literary criticism: ENGL 384, 385, 386, 459, 467A,B, 469, 474, 475, 476, 477A,B, 478, 479; electives to make up a total of 41 units chosen from the classes listed above and/or any upper-division English courses.

Option in English Education (code ENGLBA06) (120 units)

The English Education option is designed for prospective secondary English teachers and satisfies the state-mandated requirement in subject matter competence for the Single Subject Teaching credential. The option combines a 35-unit core with a specified emphasis in one of nine areas. Areas of emphasis vary in the number of breadth and perspective units required beyond the core as indicated below.

Students must complete the following core courses for all emphases: ENGL 184, 310, 327 (or LING 327), 363, 375, 410, 482, LING 339; ENGL 250A or 250B; ENGL 270A or 270B.

In addition to the English Education option, credential candidates must complete 33 units of professional preparation in the Single Subject Credential Program (see Single Subject Teacher Education). Students may begin the professional preparation course as early as the junior year. With careful planning, students may complete all English Education courses and professional preparation courses, other than student teaching, prior to graduation. Prospective majors should consult an English Education advisor early to plan their programs.

English Education emphases should not be confused with B.A. options or majors in English or other departments, which have significantly different requirements.

Black Studies Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): B/ST 140, 343, 415, 499 (minimum of 3 units); select three units from B/ST 155, 201, 370; select three units from B/ST 180, 240, 340, 346.

Comparative World Literature Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): select three units from C/LT 101, 161; select three units from C/LT 101, 330A, 330B;

select three units from C/LT 361, 461; select three units from C/LT 250, 251, 410, 412, 451; select three units from C/LT 103, 104, 334, 336, 402, 403, 440; select three units from C/LT 312I, 310I, C/LT/HIST 414I, CLSC 421I, C/LT/THEA 422I, 431, 432, 438.

Creative Writing Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): select nine units in creative writing from ENGL 404, 405, 406, 407, 408, 499; select nine units from ENGL 385, 386, 459, 463, 467A, 467B, 474, 475, 476, 477A, 477B, 478.

Journalism Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of twenty-one (21) units to provide breadth and perspective.

Breadth and Perspective (21 units minimum): JOUR 110, 120, 319A, 320, 331, 430; select a minimum of three units from JOUR 300, 312I, 319B, 370, 422, 431, 490, 499.

Language and Linguistics Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): select six units from LING 420, 421; select six units from LING 485 (or ED P 485), 486; select three units from ANTH 421 or LING 472; select three units from ENGL 435, LING 460.

Literacy and Composition Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of fifteen (15) units to provide breadth and perspective.

Breadth and Perspective (15 units minimum): ENGL 435, 436; select a minimum of six units from ENGL 309, 496, 497, LING 460; select three units from ENGL 300, 317, 405, 406, 407, 417, 418.

Literature Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of fifteen (15) units to provide breadth and perspective.

Breadth and Perspective (15 units minimum): ENGL 384; select three units from ENGL 451, 452, 453, 455, 456, 458, 459; select a minimum of three units from ENGL 474, 475, 476, 477A,B, 478, 479; select three units from ENGL 318I (or FEA 318I), 385, 386, 398; select three units from C/LT 100 or any upper division English course.

Speech Communication Emphasis

Students are required to complete the core of thirty-five (35) units and twenty-one (21) units to provide breadth and perspective.

Breadth and Perspective (21 units): select six units from COMM 110, 130, 171; select six units from COMM 331, 333, 335; select nine units from COMM 306, 309, 330, 355, 410, 411.

Theatre Arts Emphasis

Students are required to complete the core of thirty-five (35) units and twenty-three (23) units to provide breadth and perspective.

Breadth and Perspective (23 units): THEA 101, 114A, 142, 148, 321, 374, 476; select one unit from THEA 310A or 340A.

Discontinued Emphases

Emphases in American Studies, Dance, and Radio/TV/Film were discontinued December 1997 in compliance with the Commission on Teacher Credentialing of the State of California.

Option in Language and Composition (code ENGLBA07)

The Language and Composition option has been discontinued. Students who officially declared this option as a degree objective prior to Fall 1996 may complete it with the required courses or approved substitutions. Students wishing to begin a comparable program should pursue an option in Language and Linguistics, Literacy and Composition, or Special Emphasis.

Option in Language and Linguistics (code ENGLBA03) (120 units)

The Language and Linguistics option is designed for students who desire a balanced program (language and literature, plus some focus on written communication) which emphasizes the linguistic needs of California students and teachers, particularly in a second language context. This option provides background for graduate study in linguistics and other fields, for Teaching English as a Second Language (TESL), for language minority education, and for fields involving intensive language acquisition and communication. (Students seeking a Secondary Credential should complete the Language and Linguistics emphasis of the English Education option.)

This option consists of 41 units total, 29 of which must be upper division, including the following:

Lower division: ENGL 184, 250A or 250B, 270A or 270B,

Upper division: LING 329; LING 327 (or ENGL 327) or 363I; three courses from ENGL 426 (or LING 426), LING 420, 421; two courses from LING 472, 485, 486; one course from ENGL 300, 310, LING 460; electives to complete 41 units from courses listed and/or ENGL 499, 481, 482.

Option in Literacy and Composition (code ENGLBA04) (120 units)

The Literacy and Composition option is designed for students who desire a balanced program of composition, literature, and language study with particular emphasis on the ways literacy is defined and promoted in our society. This option prepares students for graduate study in English, rhetoric and composition, and literacy studies, for teaching on virtually all levels, and for fields involving intensive writing and communication skills. (Students seeking a Secondary Credential should complete the Literacy and Composition emphasis of the English Education Option.)

This option consists of 41 units, 29 of which must be upper division, including the following:

Lower Division: ENGL 184, 250A, B.

Upper Division: ENGL 410, 436; one course in composition: either 309 or 310; two courses from ENGL 435, 496, 497, LING 329; two courses from ENGL 300, 317, 337, 405, 407, 417, 418, 419; electives to make up a total of 41 units. Recommended additional courses, ENGL 270A, 270B, 385, 390, 421, 423, 426, 482.

Option in Literature (code ENGLBA01) (120 units)

The Literature option is designed for students who desire a thorough grounding in English and American literature, particularly those planning on graduate study in English. Students aiming at advanced degrees should take as many of the recommended electives as possible. (Students seeking a Secondary Credential should complete the Literature emphasis of the English Education Option.)

This option consists of 41 units, 29 of which must be upper division, including the following:

Lower Division: ENGL 184, 250A,B.

Upper Division: ENGL 384; three courses in English literature: 363 and either two courses from the 450 series or one course from the 450 series and one course from 462, 463, 467A,B, 468; three courses in American literature to include: 270A,B; one course from 472, 473, 474, 475, 476, 477A,B, 478; one senior seminar: 469 or 479; electives to make up a total of 41 units. Recommended: 431 (Classical Background); additional courses in the 450, 460, 470 series; 404; 405; 406; 407; 499; C/LT 330A,B.

Option with Special Emphasis (code ENGLBA05) (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 and at least 21 units of the program must be upper division. For degrees with more than four courses in any single other department, students should consider a Special Major in the Interdisciplinary Studies Program.

Students wishing to take the Special Emphasis option should prepare a detailed program proposal early in their college careers. Such programs will be recognized only if planned in consultation with a faculty advisor in the Department of English, approved in writing by the advisor, given signed approval by the Department Chair, and carried out under the advisor's continuing supervision. Students must complete at least 15 upper-division units applicable to their Special Emphasis program after it has been officially approved.

The only specific course requirements and limitations are the following: ENGL 184, Composition and Literature (four units); ENGL 384, Principles of Literary Study (three units).

Electives in English and related fields are needed to make up a total of 41 units. These electives may not include ENGL 100 or 101.

Minor in English

Creative Writing (code ENGLUM01)

The minor in English (Creative Writing) requires a minimum of 21 units and includes the following: ENGL 184; three units from ENGL 204, 205 or 206, three units from ENGL 404, 405 or 406; three units from ENGL 385 or 386; and eight units of electives in creative writing from ENGL 404, 405, 406, 407, 459, 467A,B, 474, 475, 476, 477A,B, 499. (Note: ENGL 404, 405, and 406 and 407 may be repeated for credit to a maximum of six units by consent of instructor.)

Language and Composition (code ENGLUM02)

The Language and Composition minor in English requires a minimum of 20 units and must include: ENGL 310, 497, LING 420, and 421. Also recommended are three units from ENGL (or LING) 423 or 426.

Literature (code ENGLUM03)

The Literature minor in English requires a minimum of 21 units and must include: ENGL 184; eight units from ENGL 250A,B, 270A,B, and nine units of electives from ENGL 363, 385, 386, 390, 398 and/or any courses from the 450, 460, or 470 series.

Special Emphasis (code ENGLUM04)

The Special Emphasis minor in English requires a minimum of 21 units in a program developed, approved, and supervised in the same manner as the Special Emphasis Option. ENGL 184 is required of all students, with the rest of the program constructed in consultation with a faculty advisor. At least 9 upper division units must be taken after program approval, and at least 11 units must be earned in the Department of English.

Teaching Emphasis (code ENGLUM05)

The Teaching Emphasis minor in English requires a minimum of 22 units and includes the following: ENGL 184, 310, 482; eight units from ENGL 250A,B, 270A,B; three units from ENGL (or LING) 327 or LING 329. This minor meets State of California requirements for a supplemental teaching area in the Single Subject Credential.

Certificate in Teaching English as a Second Language (code ENGLCT02)

The Certificate Program in Teaching English as a Second Language is conducted by the Linguistics Department faculty. Please refer to the Linguistics sections of this *Catalog*.

Certificate in Technical and Professional Communication (code ENGLCT01)

The Department of English offers a Certificate in Technical and Professional Communication to students interested in careers in writing and editing. Application forms and advising materials may be obtained from the department office.

Prerequisites

1. Formal consultation with a faculty advisor in the Technical and Professional Communication (TPC) Certificate program;
2. Submission of an application to enter the program, supported by transcripts;

3. Upper division or post-baccalaureate standing at CSULB with a grade point average of at least 2.75 overall;
4. Admission to a degree program in this university or possession of a degree from an accredited university;
5. Successful completion of ENGL 317, Technical Writing, with a letter grade of "C" or higher.

General Requirements

1. A baccalaureate degree, which may be taken concurrently with the Certificate in Technical and Professional Communication;
2. A minimum of 24 units in courses approved for the Certificate Program at this University, preferably completed within 10 years of the first credit granted toward the Certificate (consult an advisor concerning any transfer or extension credit that may be allowable);
3. A letter grade of "C" or higher in every course in the Certificate program (a grade of "CR" is acceptable in no more than one course);
4. Completion of a program of courses in Areas I through IV, developed in consultation with an advisor in the Technical and Professional Communication Certificate program, and approved by the Program Director and the Dean of the College of Liberal Arts (or the Dean's designee);
5. Demonstrations (in or outside the program of courses) of competence in the use of computers and graphic media;
6. Development of a portfolio of reports, written and edited by the student during enrollment in the Certificate program, for review and approval by faculty in the Technical and Professional Communication Certificate program (required for a grade in ENGL 492A/B, Area IV).

Course Requirements

For each of the following courses, TPC Certificate students have been granted enrollment rights equal to those of students majoring in the Department offering the course. Substitutions are possible, especially in more advanced courses, with approval by the Program Director.

Area I: Technical and Professional Writing (9 units): ENGL 417, 418, and one from the following courses: ART 307, 309; CRIM 302; ENGL 419; GEOL 420; IS 301.

Area II: Language Studies (4 units): ENGL 319, 320.

Area III: Electives chosen from the following (minimum 8 units):

Analytical Reading: COMM 301; ENGL 384, 423; GEOG 380; HIST 400/PHYS 400I; NSCI 375I; PHIL 381;

Business/Professional Skills: ACCT 201; COMM 334, 335, 344; FIN 220; JOUR 370; MKTG 300, 330;

Computer Applications: CECS 174; IS 240; JOUR 331; MGMT 426; NSCI 200; SOC 200;

Creative Writing: ENGL 404, 405, 406, 407; FEA 304, 404; THEA 380;

Intercultural Communication: ANTH 412I, 413; COMM 330; MKTG 480;

Visual Communication: ET 170; GEOG 200; JOUR 305; MAE 172;

Area IV: Practical Writing (3 units): ENGL 491 (1 or more units), 492A or B (2 or more units). No grade in ENGL 492 will be assigned without an approved portfolio, as indicated in Paragraph 6, General Requirements.

GRADUATE PROGRAMS

The Department of English offers two graduate degrees, an M.A. in English and an MFA in Creative Writing. Teaching assistantships are available in both. Application information may be obtained from the Department office, (562) 985-4223.

Master of Arts in English (code ENGLMA01)

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). 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 two sets of transcripts from all colleges and universities attended. One set must be submitted to the Office of Enrollment Services and another set must be sent directly to the Department of English. The deadline for submitting an application for Fall semester is May 1; the deadline to apply for Spring is October 15.

Prerequisites

An applicant may be admitted to the M.A. 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 24 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 M.A. program.

2. A 3.2 GPA in upper division English courses.

After Admission to Program

Students must be formally admitted to the program before they can enroll in ENGL 696, which is pre-requisite or co-requisite to all other 600-level courses.

Advancement to Candidacy

1. The student must satisfy the general requirements of the University, including passing the Writing Proficiency Examination (WPE).
2. The student's M.A. 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 to candidacy may take place upon completion of six units in the M.A. program. Advancement to candidacy must take place no later than the semester preceding the awarding of the degree.

Requirements

1. A minimum of 30 units of approved upper division (indicated in the *Catalog* with an asterisk*) and graduate courses including 24 units in English;
2. A minimum of 20 units in the 500 and/or 600 series in English at this University, 16 of which must be in the 600 series, 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 M.A. 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;
6. Appropriate filing for Graduation Check and for Diploma. Teaching assistantships are available in the Department of English. In addition, the Department's tutoring program, the Writer's Resource Lab, employs a number of graduate and undergraduate students each semester. Application for both of these programs may be obtained from the Department office at (562) 985-4223.

Master of Fine Arts in Creative Writing (code ENGLMF01)

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. The Department of English at California State University, Long Beach is a fully accredited program that meets the standards of the State of California.

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 February 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. Pass the Writing Proficiency Examination.
 - 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
 - a. The MFA degree is a sixty-unit degree normally requiring full-time residency. Course requirements are arranged according to the following structure.

Core Courses: (39 units, to be chosen on the basis of consultation with a faculty advisor, to include): ENGL 505A,B or 506A,B; 590A,B; 605A,B or 606A,B; 584; 590; 598; 696; 698.

Elective Courses: (21 units, to be chosen on the basis of consultation with a faculty advisor, to include): ENGL 523, 526, 535, 537, 550, 551, 552, 553, 554, 555, 556, 558, 559, 562, 567A, 567B, 568, 574, 575, 576, 577A, 577B, 578, 583, 652, 653, 655, 656, 657, 659, 672, 673, 674, 681; FEA 404; *THEA 380, *480.

* may be counted for graduate credit
 - 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.

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 writing, 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.

1. Writing Skills (3)

Required of all entering students who score between 142 through 150 on the English Placement Test and who have not taken an equivalent writing skills course in another department. Does not count toward graduation but does count toward course load. A basic course in writing, offering intensive practice in every stage of the writing process from the generation of ideas to final proofreading. Reviews organization, paragraph and sentence development, appropriate word choices, and conventional mechanics, including spelling. Credit/No Credit grading only.

1E. Writing Skills (4)

An equivalent, yet more intensive, ENGL 1 course. Students who score 147 or below, and who have not taken equivalent writing courses in another department, are eligible for enrollment in this course. Does not count toward graduation but does count toward course load. A basic course in writing, offering intensive practice in every stage of the 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. Credit/No Credit grading only.

100. Composition (3)

Prerequisite: A recorded total score of 151 or above on the English Placement test, or credit in ENGL (or its equivalent) and consent of the instructor. Writing non-fiction prose, with emphasis on exposition. Readings may be assigned. Satisfies the baccalaureate degree requirement for one course in English composition. Not open to students with credit in ENGL 100W. (CAN ENGL 2)

101. Composition (3)

Prerequisite: ENGL 100. Writing expository prose, with emphasis on the research paper.

102. Critical Reading and Writing (3)

Prerequisite: ENGL 100 with a minimum grade of "C." Analytical reading and persuasive writing with emphasis on logic and argumentation. (Not open to students with credit in ENGL 200.)

180. Appreciation of Literature (3)

Prerequisites/Corequisites: One Foundation course. Study of works representing the scope and variety of themes and types of imaginative literature. (Not applicable toward an English major. Not open to students with credit in ENGL 184.)

184. Composition and Literature (4)

Prerequisite: ENGL 100. Introduction to the major literary genres and to methods of critical expository writing, including methods of research and documentation. Required of all English majors. Open to non-majors with consent of instructor.

204. Introduction to Creative Writing: Creative Nonfiction (3)

Prerequisite: ENGL 100. Practice in the basic elements of creative nonfiction writing, including description, dialog, and framing.

205. Introduction to Creative Writing: Fiction (3)

Prerequisite: ENGL 100; completion of GE Foundation requirements. Practice in the basic elements of fiction writing: character sketch, plot development, description, dialog.

206. Introduction to Creative Writing: Poetry (3)

Prerequisite: ENGL 100; completion of 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)

Prerequisite: ENGL 100; completion of GE Foundation requirements. Representative selections from English writers to and since the late eighteenth century. (CAN ENGL 8, 250A; CAN ENGL 10, 250B)

270A,B. Survey of American Literature (4,4)

Prerequisites: ENGL 100; completion of 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.

285. Detective Fiction and Film (3)

Prerequisites: ENGL 100. A course designed to acquaint students with the variety of short stories, novels, and films available in the genre of detective fiction. These works, both on paper and on film, will be discussed using traditional literary analyses.

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. Therefore, ENGL 100 or its equivalent is a prerequisite for all upper division courses.

An asterisk (*) next to a course number means the course is acceptable for the M.A. degree. An "I" next to a course number means the course is acceptable for Interdisciplinary Credit in General Education.

300. Advanced Composition (3)

Prerequisites: ENGL 100 and upper division standing. 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.

301E. English Proficiency (3)

Prerequisite: ENGL 100 or equivalent. An 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. Letter grade only (A-F).

309. Applied Composition: Explorations in Children's Writing (4) F,S

An advanced composition course also incorporating the study of the evolution of written discourse and emergence of rhetorical structures in the writing of pre-adolescents. The course includes a 30-hour tutorial/research component. Discussion/Laboratory.

310. Applied Composition (4)

Prerequisite: ENGL 101 or 184 or 317 or a baccalaureate degree. Intensive practice in writing, correcting and evaluating compositions, with specific reference to contemporary classroom situations and problems. The course includes a 30-hour tutorial component in which students work as composition tutors. Required for all English credential candidates.

317. Technical Communication (3)

Prerequisites: Completion of the Foundation requirement and one Explorations course, upper division standing and at least a "B" in previous composition course, i.e., ENGL 100, 101, 102, 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.

318I. Theory of Fiction and Film (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Examination of the narrative methods and conventions of American and British fiction and the methods and conventions of film; consideration of the relationships between the artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film. Same course as FEA 318I.

319. Technical Editing (4)

Prerequisites: Completion of the Foundation requirement and one Explorations course, upper division standing and at least a "B" in previous composition course, i.e., ENGL 100, 101, 102, 300 or equivalents. An introduction to the editing of written technical and business communication formats such as manuals, brochures, booklets, and newsletters. Students will demonstrate competence in the principles of sentence-level clarity and style, of factual accuracy, and of document design and production in professional settings.

***320. English Grammar (4)**

Advanced study of the principles of English grammar.

327. Essentials of the English Language (3)

Prerequisites: ENGL 100 or its equivalent. Introduction to the essentials of English language study for credential candidates, including the history of the English language, key models of English grammar, and a variety of applied topics ranging from semantics and dialect study to current research in the teaching of English. Same course as LING 327.

337. Technology in the English Classroom (3)

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. Focuses on: (1) issues in the use of computer-based technologies in society; (2) basic components and operations of computer-based technology; (3) computer applications/programs and video tape/film for teaching problem-solving, critical thinking, writing, and literature. Applications include brainstorming, outlining, word processing, data processing, document checking, desktop publishing, data bases, telecommunications, networking, program development, drills, and instructional management.

359. Postcolonial Literature

Prerequisites: Upper division status. A 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; completion of GE Foundation requirements. Principal plays of Shakespeare.

372I. Comedy in the United States (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. A study of the history of American humor from beginnings to the present. Most of the representative works studied will be from literature; however, considerable attention will be devoted to manifestations of American tradition of humor found on stage, in film, in song, and in signs. Theories of comedy will be included in discussion.

375. American Ethnic Writers (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements. A survey of American writers of various non-European ethnic backgrounds who have made major contributions in all literary genres.

382. Women and Literature (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements. Images of women in English literature; works in various genres that present the range and complexity of women's lives;

feminist critical approaches and bibliographic resources. Same course as W/ST 382.

384. Principles of Literary Study (3)

Prerequisite: ENGL 184. 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; completion of GE Foundation requirements. The short story as a literary genre, with emphasis on analysis of individual stories.

386. Poetry (3)

Prerequisites: ENGL 100; completion of GE Foundation requirements. Poetry as a literary genre, with emphasis on analysis of individual poems.

***390. Studies in Contemporary Literature (3)**

Reading and analysis of literary works, British and American, written since 1945. Topics, themes, limitations for each section will be announced in the *Schedule of Classes*. May be repeated to a maximum of 6 units with a different topic.

***398. Modern Drama (3)**

Continental, English, and American drama from Ibsen to the present.

***404. Creative Writing: Creative Nonfiction (3)**

Prerequisites: ENGL 204 or consent of instructor. Writing creative nonfiction with detailed studies of published models 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.

408. Writing the Screen Adaptation (3)

Prerequisite: FEA 303 or 304 with a 'B' or better, or ENGL 405 or 407 with a 'B' or better, or consent of the instructor. Writing script adaptations, with a study of adaptation theory and successful adaptation models. May be repeated to a maximum of 6 units. Same course as FEA 408.

410./510. Theories of Writing and Literacy (3)

Prerequisite: ENGL 309 or 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.

417. Proposal Writing (3)

Prerequisites: Completion of the Foundation requirement and one Exploration course, upper division standing. Intensive writing of proposals in their various forms as letters, memos, grant applications, etc.

418. Manual Writing (3)

Prerequisites: Completion of Foundation requirement. Writing of original manuals of various types in technical and professional fields. Company publications will be studied as models.

419. Writing in Science and Technology (3)

Prerequisites: Completion of the Foundation requirement and one Exploration course, upper division standing. 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.

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.

***431. Classical Background of English Literature (3)**

Greek and Roman literature, in translation, in relation to English literature; the interrelations of classical literature with philosophy and art.

432. Arthurian Literature: Medieval to Modern (3)

Examination of the genesis, development, and popularity of stories about King Arthur and his knights from the earliest medieval texts to modern treatments of the legend.

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 text.

441. Women Writers of the Harlem Renaissance (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor. Explores the literature and lives of women authors of the American Harlem Renaissance Period of the 1920s. Examines the critical reception, relative obscurity, and current re-discovery of these writers. Utilizes theoretical essays, biographical narratives, historical documents, and media images. Same course as W/ST 441.

442. Sexing Chicana Literature (3)

Prerequisites: ENGL100 and upper division status or consent of instructor. Studies how Chicana authors explore intersecting issues of race, class and gender. Focuses on the use of sexuality in Chicana writing, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes will include desire, identity, empowerment through "traditional" roles, violence and the body, and other issues framed by historic and symbolic representations in Chicana Literature. Same as WST 442.

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.

***461. Essentials of Old/Middle English (3)**

The Old English and Middle English languages and dialects are studied through the exploration of representative literature.

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)

Prerequisites: Major Irish authors from the Celtic Revival to the present, including W.B. Yeats, James Joyce, Samuel Beckett, Seamus Heaney, Eavan Boland. 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,B./567A,B. 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. Critical Studies in Major English Writers (4)**

Prerequisites: At least senior standing, 12 units of upper-division English. 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 the requirements for the English major. Topics to be announced in the *Schedule of Classes*.

470. American Ethnic Literatures (3)

Prerequisites: ENGL 375 or consent of instructor. American Ethnic Literatures is an advanced course in the examination of issues in the field of American ethnic writing.

472. American Literature: 1820-1865 (3)

An intensive examination of the major authors and works, along with newly recovered texts, from the period that is often called the "American Renaissance."

473. American Literature: 1865-1918 (3)

An in-depth exploration of leading 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.

476./576. American Poetry (3)

History and development of poetry and its criticism in the United States.

477A,B./577A,B. The American Novel (3,3)

History and development of the novel and its criticism in the U. S. to and since the 1920's.

478./578. American Drama (3)

History and development of drama and its criticism in the United States.

***479. Critical Studies in Major American Writers (4)**

Prerequisites: At least senior standing, 12 units of upper-division English including ENGL 270A,B. 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 the requirements for the English major. Topics to be announced in the *Schedule of Classes*.

481. Children's Literature (3)

Survey of literature suitable for children.

482. Literature for Adolescents (3)

Prerequisite: One college course in literature. Survey of literature suitable for adolescents.

483. Women in the Early Modern Era (3)

Prerequisites: Study of representations and realities of women's lives, 1500-1800, from international and interdisciplinary perspectives. Critical methodology of history and literature; analysis of

literary and historical texts to explore women's experiences of law and economics; religion; education and culture; marriage, sex, and health; politics and revolution.

484./584. Contemporary Literary Theory (3)

Study of the principal theories of literature including structuralism, hermeneutics, theory of genre, and theory of criticism.

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.

***496. California Writing Project (1-4)**

Specifically designed for teachers, prospective teachers, school administrators, and writers. Focus is on successful classroom practices in teaching writing; writing and responding to others' writing; and on the theory and research behind successful literacy training. CSULB - South Basin Writing Project is an affiliate of both the California and National Writing Projects.

497. Directed Studies in Composition (3)

Prerequisite: One upper division writing course in English or permission 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. Topics in English (3)**

Exploration of topics in language and literature, specific topics to be announced in the *Schedule of Classes*. Course may be repeated to a maximum of 6 units with different topics.

A) American Novel/Film

C) Bible in American Literature

G) Hemingway on Film

K) Literature and Psychoanalysis

L) Poetry and the Self

O) Short Fiction/Film

499. Directed Studies (1-3)

Prerequisite: Consent of instructor. Independent study undertaken under the 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 course offerings applicable to the M.A. 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 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.

523./423. Semantics (3)

Study of meaning in language.

526./426. History of the English Language (3)

Development of the English language from its beginnings to the present day.

535. Theories and Practices in Composition (3)

Prerequisite: ENGL 435 or consent of instructor. Focuses on the 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.

537. Special Topics (3)

Designed for in-service teachers. Intensive studies and research in special, timely topics (as announced in the *Schedule of Classes*) related to the teaching of English. May be repeated to a maximum of 6 units with different topics.

550. Old English Language and Literature (4)

Prerequisite: ENGL 461 or consent of instructor. Beowulf and other representative selections from Anglo-Saxon literature in the original language.

551. Middle English Language and Literature (4)

Prerequisite: ENGL 461 or consent of instructor. Chaucer and other representative selections from Middle English literature in the original language.

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.

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.

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.

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*.

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.

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.

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.

562./462. Chaucer (3)

Works of Geoffrey Chaucer in Middle English.

566./466. Irish Literature in English (3)

Prerequisites: Major Irish authors from the Celtic Revival to the present, including W.B. Yeats, James Joyce, Samuel Beckett, Seamus Heaney, Eavan Boland. 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.

567A,B./467A,B. The English Novel (3,3)

History and development of long prose fiction in the British Isles to and since 1832.

568./468. English Drama (3)

Readings from the history of English drama, excluding Shakespeare, including Marlowe, Jonson, and Restoration comedy.

572. American Literature: 1820-1865 (3)

An intensive examination of the major authors and works, along with newly recovered texts, from the period that is often called the "American Renaissance."

573. American Literature: 1865-1918 (3)

An in-depth exploration of leading developments in poetry, the novel, the short story, and non-fictional prose in the United States between the Civil War and World War I.

574./474. Twentieth Century American Literature (3)

American literature from about 1914 to the present.

575./475. The American Short Story (3)

History and development of the short story and its criticism in the United States.

576./476. American Poetry (3)

History and development of poetry and its criticism in the United States.

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 1920's.

578./478. American Drama (3)

History and development of drama and its criticism in the United States.

583. Special Topics in Literature (3)

Intensive studies in special topics in literary theory, techniques, types, genres, modes, themes, movements and in the relations of literature with other arts and disciplines, as announced in the *Schedule of Classes*. May be repeated to a maximum of 6 units with different topics.

B) Women Writers

E) Modes of Fantasy

584./484. Contemporary Literary Theory (3)

Study of the principal theories of literature including structuralism, hermeneutics, theory of genre, and theory of criticism.

590. Directed Reading (3)

Students will be assigned a reading list developed with the assistance of faculty. There will be a series of conferences in which the works are discussed with the instructor. A comprehensive paper will be due at the end of the semester. Will be taken for two semesters during the student's second year of residency in the MFA program. Letter grade only (A-F). May be repeated for a maximum of 6 units.

598. Directed Studies (1-3)

Prerequisites: Baccalaureate degree, consent of instructor. Independent creative writing activity under the supervision of a creative writing faculty member. Repeatable to a maximum of 6 units.

605A. Advanced Seminar in Fiction Writing (4)

Prerequisites: Admission to the MFA in Creative Writing, ENGL 505A, and 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, 505B, and 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 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, 506B, and 606A. Discussion, criticism, and detailed evaluation of works in progress. Letter grade only (A-F).

652. Seminar in the English Renaissance (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in the literature of the period, chiefly Elizabethan.

653. Seminar in the Age of Milton (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in English literature of the Stuart and Commonwealth periods, including Milton.

655. Seminar in Restoration and Eighteenth Century Literature (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in English literature of the Restoration and eighteenth century.

656. Seminar in Romantic Literature (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in English literature of the Romantic period.

657. Seminar in Victorian Literature (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in English literature of the Victorian period.

659. Seminar in Twentieth Century English Literature (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in English literature from about 1900 to the present.

672. Seminar in the Nineteenth Century American Renaissance (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in American literature from about 1820 to about 1865.

673. Seminar in American Realism (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in the development of realism in American literature.

674. Seminar in Twentieth Century American Literature (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies of 20th Century American writers.

681. Seminar in Major Authors (4)

Prerequisite: ENGL 696 (may be taken concurrently). Intensive studies in the works of specific authors as announced in the *Schedule of Classes*. Not open to students with credit in ENGL 469 or 479 covering the same author. May be repeated to a maximum of 12 units with different authors. Topics include:

- A) Shakespeare
- B) Chaucer
- C) Yeats
- E) Joyce
- F) John Fowles

683. Seminar in Special Topics in English Studies (4)

Prerequisites: ENGL 696 or its equivalent (may be taken concurrently). Intensive explorations of special topics in English studies. May be repeated to a maximum of 8 units with different topics. Letter grade only (A-F). Topics include:

- A) Feminism/Modernism
- B) Autobiography
- C) Postmodernism and the Novel
- D) Current Issues in Rhetoric and Composition
- E) Teaching Literacy
- F) The Irish Short Story
- G) Nineteenth Century American Women Writers, 1850-1900

696. Seminar in Literary Criticism and Research (4)

Study of major critical approaches to literature and basic literary research methods. Introduction to the discipline of literary criticism, various critical methodologies, techniques of bibliography and research, important literary reference works. Writing of critical research papers. A student will not be allowed to take ENGL 696 unless admitted to the M.A. program. (An English M.A. candidate may not be enrolled in any other 600 course without completion of or concurrent enrollment in ENGL 696.)

697. Directed Research (1-3)

Prerequisites: ENGL 696 and consent of instructor. Individual research or intensive study under the guidance of a faculty member.

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.

Courses (ALP)

American Language Program (ALP) courses are for non-native speakers of English. ALI courses are recommended for international students (students on F1 visas). ALP courses are recommended for all other non-native speakers of English.

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 in this course. Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates. A basic course in writing, offering intensive practice in every stage of the 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 II (3)

Prerequisite: Non-native speakers who score between 138 through 150 on the English Placement Test, between 501 through 550 on the Exam in English as a Second Language, or successful completion of ALI/ALP 145 with a grade of "C" or better. Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates. Includes critical/analytical reading and expository writing with emphasis on longer essays. Analysis and practice of standard rhetorical modes of essay development.

COLLEGE OF ENGINEERING

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The College of Engineering offers four-year curricula leading to Bachelor of Science degrees in the disciplines of engineering, computer science, and engineering technology as well as master's and Ph.D. degree programs. The B.S. programs provide broad education and training for entry to the professions and for continuing academic work toward advanced degrees. Master of Science degrees are offered 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. Undergraduate programs provide opportunities to specialize in the areas of aerospace, biomedical, chemical, civil, computer, electrical, industrial-management, manufacturing, materials and mechanical. The Bachelor's programs in engineering, computer science and engineering technology are accredited by the appropriate accreditation commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – telephone: 410/ 347-7700; website: <http://www.abet.org>. The aerospace, chemical, civil, computer, electrical and mechanical engineering programs are accredited by the Engineering Accreditation Commission (EAC) of ABET. The computer science program is accredited by the Computing Accreditation Commission (CAC) of ABET. The computer, electronics and manufacturing technology programs are accredited by the Technology Accreditation Commission (TAC) of ABET. (See detailed listing of the accredited programs on the next page). Several certificate programs are also offered. Evening sections of most of the regular courses are offered to help the working students.

Engineering Facilities

The engineering and engineering technology buildings house the College of Engineering in a complex of several adjacent buildings, including a modern six-story Engineering and Computer Science (ECS) building, providing modern laboratories and offices for faculty. The buildings feature advanced and comprehensive engineering, computer science, and technology facilities, totalling over 130,000 square feet of laboratory space.

Engineering Advisory and Development Councils

The College of Engineering has Advisory and Development Councils, one for the entire college, one for each of the six departments, and one for the MESA program. These councils consist of outstanding engineers and executives from industry and government in Southern California. Their function is to form a liaison between the University and industry and to keep the administration and faculty informed of modern engineering practices. This helps to ensure that the curricula are kept up-to-date. They also advise on placement opportunities before and after graduation.

Programs at a Glance

ABET Accreditation

The Bachelor of Science degrees followed by an asterisk (*) are accredited by EAC, CAC or TAC of the Accreditation Board for Engineering and Technology (ABET) as appropriate.

Baccalaureate Degrees

- B.S. in Aerospace Engineering*
- B.S. in Chemical Engineering *
- B.S. in Civil Engineering *
- B.S. in Computer Engineering*
- B.S. in Computer Science*
- B.S. in Construction Engineering Management
- B.S. in Electrical Engineering *
- B.S. in Manufacturing Engineering
- B.S. in Mechanical Engineering *
- B.S. in Engineering
 - Option in Industrial-Management Engineering
 - Option in Materials Engineering
 - Option in Biomedical and Clinical Engineering
 - Option in Audio Engineering
 - Option in Theme Park Engineering
- B.S. in Engineering Technology
 - Option in Environmental Technology
 - Option in Manufacturing Technology*
 - Option in Quality Assurance Technology
- B.S. in Electronics and Computer Engineering Technology
 - Option in Electronics Technology*
 - Option in Computer Technology*

Minors

- Minor in Computer Science
- Minor in Environmental Engineering

Graduate Degrees

- M.S. in Aerospace Engineering
- M.S. in Civil Engineering
- M.S. in Computer Science
 - Option in Computer Engineering
 - Option in Computer Science
- M.S. in Electrical Engineering
- M.S. in Engineering (Interdisciplinary)
- M.S. in Engineering Management (on-line) Jointly with CSUDH
- M.S. in Mechanical Engineering
- Civil Engineer (professional degree)
- Ph.D. in Engineering and Industrial Applied Mathematics (jointly with The Claremont Graduate University)

For detailed descriptions, see departmental listings for Chemical Engineering, Civil Engineering, Computer Engineering and Computer Science, Electrical Engineering, Engineering Technology, and Mechanical and Aerospace Engineering.

Students should submit applications early in August for the following Spring Semester and November for the following Fall Semester, or as soon as possible thereafter. Applications may be accepted at later dates, particularly for upper-division transfer students from community colleges and from students applying for masters or doctoral programs.

Certificate Programs

- Certificate in Heating, Ventilating and Air-Conditioning Engineering (offered by MAE Department)
- Certificate in Waste Engineering and Management (offered by CE Department)
- Certificate in Energy Conversion and Power Systems Engineering (offered by MAE and E.E. Departments)
- Certificate for Industrial Plastics Processing and Design (offered by MAE. and ChE departments)
- Certificate in Facilities Operations (offered by ET Department)
- Certificate in Safety Operations (offered by ET Department)
- Certificate in Aerospace Manufacturing (offered by MAE Department)

Mathematics, Engineering, Science, Achievement (MESA) Center

The MESA Center is a program that serves low income and educationally disadvantaged students at the pre-college and college levels. The program is funded by the State of California and also receives program donations from private industry. The MESA Center is comprised of two distinct programs with operations based in the College of Engineering, the MESA Schools Program (MSP) and the MESA Engineering Program (MEP). The MESA Schools Program (MSP) partners with middle and high schools in the Los Angeles basin area to prepare students to attend college. MSP provides academic support services to over one thousand pre-college students with the primary objective of increasing future enrollment at the university level in the disciplines of mathematics, engineering and science. The MESA Engineering Program (MEP) provides non-remedial academic support services to matriculated college students. The major objectives of MEP are to support the recruitment, retention and graduation of a select campus student population. The MESA Engineering Advisory and Development Council (MEADC) includes a membership of industry representatives from local area businesses with an interest in promoting the educational experience of low income and underrepresented students.

Academic Standards

Preparation for Admission to the College of Engineering

The high school student planning to enter engineering, engineering technology, or computer science is advised to pursue a program with courses in biology, physics, chemistry, advanced algebra, and trigonometry. In addition, the general requirements for admission to the University must be satisfied. Deficiencies in some of the above areas may result in an extension of the time required to complete a program in engineering, technology, or computer science. 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 such as the community colleges and liberal arts colleges. Full-time students who complete two years at a community college can complete the B.S. degrees in two years. Transfer students should note and follow, where possible, the appropriate curriculum as outlined in later sections. None of study programs are impacted. Only general admission requirements of University apply and must be met.

General Academic Requirements

In addition to technical knowledge, skills and training, the College of Engineering values good communication skills. The University in its General Education courses provides the basic communication skills and measures them with the graduation requirement of the Writing Proficiency Examination. Students are advised that all College of Engineering courses and student course work require not only correct analysis, competent design and professional presentation but also clear and concise written and oral communication in English. While individual specific course requirements vary depending on the nature of the course, good communication skills, both in written and oral reports, are expected of all students and will normally constitute a portion of the student's grade.

A grade of "C" or better must be achieved in prerequisites for courses required of engineering majors. English 100 or equivalent is a prerequisite to upper division laboratory courses.

Admission to any one of the graduate degree programs in the College of Engineering normally requires a minimum GPA of 2.5 in the last 60 units taken.

A student must pass the Writing Proficiency Examination (WPE) before qualifying for any degree.

Letter Grade Policy

Letter grades ("C" or better) are required for prerequisites for required courses of Engineering, Computer Science, and Engineering Technology majors.

Required English, Speech, and Upper Division Interdisciplinary (IC) courses must be taken for a Letter Grade, 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 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.

Dual Degree Program

Students wishing to combine an engineering degree with one in business, education, fine arts, humanities or the sciences may enter the Dual Degree Program. The College of Engineering at CSULB has agreements with other Colleges within the University and with other institutions which allow students to do this. After three years at the first institution, students transfer to CSULB as juniors to complete the two final years of engineering study. At the end of the first year at CSULB, students who have completed all of the requirements for their first degree are awarded those degrees by the appropriate College or institution. At the end of their fifth year, students who have completed all engineering requirements receive their engineering degrees. As an option, students may choose to complete both degrees simultaneously.

Course Availability

Full-time students without deficiencies in the principal College of Engineering programs can comfortably complete their degree requirements in four years, or in two years after completing two years at a community college. Most of the required courses are offered in multiple sections every semester. In addition, many required courses are also offered during Summer Sessions.

General Education (GE) Requirement for Engineering Major

Engineering majors will have somewhat modified general education programs depending upon the catalog year and enrollment status. Students, especially returning and transferring students and those in the ABET accredited programs, must see an advisor in the department to work out a plan which meets both the campus GE and ABET GE requirements.

In accordance with the ABET Engineering Criteria 2000, the programs in the College of Engineering must demonstrate that our graduates have the broad education necessary to understand the impact of engineering solutions in a global and societal context. Accordingly, we have a general education component that complements the technical content of the curriculum and is consistent with both our programs and campus objectives. The College of Engineering has created a set of thematic clusters incorporating the upper division, interdisciplinary GE courses.

Accordingly, all engineering students must take at least two upper division Interdisciplinary GE courses in one of the following nine themes. (Note: CSULB General Education has been revised to include "Capstone" courses. Our themes will be changing later to include them.)

THEME I: Technology and Society

"Technology and Society" provides an understanding of the role of technology in our society. It covers human and economic aspects of engineering practice and the impacts of technological developments on society in the context of social, political and environmental perspectives. Courses included are:

GE Category B: ENGR 370I, HIST 400I, NSCI 375I

GE Category D: ANTH 307I, ECON 360I, ENGR 302I, 375I, HIST 400I, OCST 417I, POSC 461I, PSY 350I

GE Category E: ECON 309I, ENGR 375I, FIN 309I, FCS 309I, REC 340I

THEME II: Arts, Creativity, and Human Enrichment

"Arts, Creativity, and Human Enrichment" explores various aspects of the creativity of human beings in the context of arts as a vehicle for enrichment of human experience. Students gain a better appreciation of the role of arts and humanities in life, and the thought processes in human inquiry which enrich our lives. Courses included are:

GE Category C: ART 335I, CLSC 421I, C/LT 320I, 324I, 412I, 422I, 451I, HIST 404I, MUS 363I, 364I, 375, 468I, THEA 324I, W/ST 365I

GE Category D: HIST 404I

THEME III: Science, Environment, and Public Policy

"Science, Environment, and Public Policy" encompasses the scientific considerations that have an impact on the natural environment. The student also explores the historical development of attitude toward the environment, and the moral obligation of humanity including the political process-

es to mitigate the environmental concerns. Courses included are:

GE Category B: ENGR 370I, GEOL 300I, 303I, MICR 302I

GE Category C: PHIL 362I

GE Category D: ANTH 307I, ENGR 302I, 375I, 474I, I/ST 319I, POSC 461I, PSY 350I, SOC 410I

GE Category E: ENGR 375I, HSC 420I

THEME IV: The Individual in a Complex Society

"The Individual in a Complex Society" addresses the relationship of the individual to an increasingly complex and technologically advanced modern world. The impacts of social changes on the individual and the ability of the individual to cope with these changes are addressed.

Courses included are:

GE Category B: ENGR 370I, MICR 302I

GE Category C: HIST 303I, PHIL 451I

GE Category D: ENGR 302I, 375I, FCS 312I, HIST 308I, KPE 339I, POSC 388I, PSY 300I, SOC 441I, U/ST 301I

GE Category E: ENGR 375I, HSC 425I, REC 340I

THEME V: Human Diversity

"Human Diversity" focuses on the physical and cultural diversity as encountered in our multi-faceted world. It deals with such topics as ethnicity, gender, and rational evaluation of regional and global cultures in order to appreciate societal development. Courses included are:

GE Category C: C/LT 415I, R/ST 302I, 331I, 341I, W/ST 318I

GE Category D: ART 330I, ASAM 319, 335I, A/ST 301I, 393I, 495I, CHLS 335I, 390I, C/LT415I, GERM 380I, HIST 407I, I/ST 317I, SOC 335I, U/ST 301I, W/ST 401I

THEME VI: Language and Culture

"Language and Culture" explores language and its role in the development of culture. Students examine how human inquiry and expression have shaped the world in which they live. Courses included are:

GE Category C: CLSC 410I, 421I; C/LT 412I, 415I, 350, 422I, 451I; FEA 318I; MUS 363I

GE Category D: ANTH 412I, HIST 404I, PSY 300I

GE Category E: LING 363I

THEME VII: Our Interdependent World

"Our Interdependent World" provides a global perspective of human and societal problems in an increasingly interdependent world. Students can better appreciate sources of conflicts, immigration and social tension, economic disparity, overpopulation, war, famine, disease, and natural disasters. Courses included are:

GE Category B: ENGR 370I

GE Category C: R/ST 383I, RUSS 410I

GE Category D: ANTH 307I, ASAM 335I A/ST 300I, ENGR 302I, 375I, GERM 380I, HCA 422A, I/ST 317I, 318I, 319I, POSC 461I, 494I

GE Category E: ENGR 375I, HSC 420I

THEME VIII: The Creative Experience

"The Creative Experience" explores various aspects of the creativity of human beings. The students examines the thought processes employed in human inquiry through a study of the culture, history, philosophy, and the physical

universe. Courses included are:

GE Category B: ENGR 370I, HIST 400I

GE Category C: ART 330I, PHIL 452I, C/LT 422I, 451I, DANC 373I, 435I, EDP 373I, MUS 468I

GE Category D: ANTH 311I, ART 330I, DANC 373I, EDP 373I, ENGR 302I, 375I,

GE Category E: ENGR 375I,

THEME IX: Technology and the Modern Age

"Technology and the Modern Age" considers the modern technological world in its broadest context. It addresses the on-going development of modern civilization and impacts of technological advances on the future of mankind. Courses included are:

GE Category B: ENGR 370I

GE Category D: ANTH 307I, ENGR 302I, 375I, I/ST 317I, OCST 417I, POSC 494I, PSY 350I, SOC 410I, 441I, U/ST 301I

GE Category E: ENGR 375I

Requirements for the ABET Accredited Degree Programs

Students working for an ABET accredited degree will meet with an academic advisor in their department as early as possible to make themselves fully aware of the ABET requirements, not only in General Education as outlined above, but also in other areas, such as math/science requirements. Requirements are subject to change and current requirements for all programs are posted at <http://www.abet.org>.

Bachelor of Science in Manufacturing Engineering (code COE_BS04) (137 units)

This program is under consideration for discontinuance. No new students will be accepted in the 2003-04 academic year.

The objective of the Bachelor of Science in Manufacturing Engineering (BSMfgE) program is to educate engineers who can design, build and manage competitive production systems. In accomplishing this objective, the program has been developed to include a resource of manufacturing knowledge that can be used to infuse manufacturing theory, principles and practices into all other disciplines in the College of Engineering.

Requirements

I. General Education (36 units, not counting 9 units of Math/Science)

Required GE categories:

1. Communication and Critical Thinking (Category A)
2. Physical Universe (Category B)
3. Humanities and the Arts (Category C)
4. Social and Behavioral Sciences (Category D)
5. Self Integration (Category E)

II. Basic Sciences (13 units): CHEM 111A; PHYS 151, 152

III. Basic Mathematics (15 units): MATH 122, 123, 224, 370A

IV. Engineering Sciences (16 units): EE 210 (or 211), EE 211L; CE 205; MAE 205, 371, 373

V. Engineering Topics (11 units): MAE 172

VI. Manufacturing Engineering Core (36 units):

1. Design for Manufacturing (9 units): MAE 376, 490A
2. Manufacturing Materials and Processes (9 units): ENGR 330, CH E 385, MAE 322
3. Manufacturing Systems and Automation (9 units): ENGR 483; MAE 474
4. Manufacturing Management, Quality and Productivity (9 units): ENGR 461

VII. Emphasis Electives

The student selects 9 units from one of the following specialized emphases:

1. *Engineering*: MAE 476
2. *Mechanical Engineering*: MAE 409A, 495
3. *Chemical Engineering*: CH E 425, 435, 437
4. *Aerospace Engineering*: MAE 422
5. *Electrical Engineering*: EE 330, 350, 450

Bachelor of Science in Engineering

Option in Audio Engineering (code COE_BS02) (126 units)

This option is designed to train students for work in the audio engineering industry. The curriculum in the College of the Arts will show students in the program how the arts and entertainment industry uses modern technology in the recording, processing and creation of sound. The curriculum in the College of Engineering will teach students how to analyze and design the electronic and computer components used in the arts and entertainment industry.

As this option is not ABET accredited, students are urged to either take a second major in Computer Engineering (follow the Computer Engineering Track) or Electrical Engineering (follow the Electrical Engineering Track)

Requirements

Computer Engineering Track

Lower Division: BIOL 207, PHYS 151, MATH 122, 222, MUS 190, EE 210, 210L, CECS 174, 201, 227, 228, 261, 274.

Upper Division: MATH 323, 370A, 380, FEA 307, ENGR 340, EE 386, 486, CECS 301, 311, 346, 347, 360, 447, 460A, 497, two courses from: MUS 343, 370, THEA 449, EE 428; plus an approved technical elective to a total of 126 units.

Electrical Engineering Track

Lower Division: BIOL 207, PHYS 151, MATH 122, 123, 224, MUS 190, ENGR 202, CECS 174, EE 201, 210, 211, 211L.

Upper Division: MATH 370A, FEA 307, ENGR 340, CE 370, EE 310, 330, 330L, 346, 347, 370, 370L, 382, 386, 430, 460, 486, 489, or 490, two courses from: MUS 343, 370, THEA 449, EE 428; plus an approved technical elective to a total of 126 units.

Option in Theme Park Engineering (code COE_BS03) (132 units)

This option is designed to prepare students to work as engineers in theme parks or amusement facilities, and the industries that support them. The program of study includes

courses primarily from Electrical Engineering, with additional training from the Civil and Mechanical Engineering Departments, and covers topics in electrical power, and electrical, mechanical, hydraulic, and pneumatic control.

As this option is not ABET accredited, students are urged to also obtain an ABET accredited second major in Electrical Engineering.

Requirements

BIOL 207, CHEM 111A, MATH 122, 123, 224, 370A, PHYS 151, CECS 174, ENGR 202, EE 201, 210, 210L, 211, 211L, 310, 330. Each of the foregoing courses must be passed with a grade of "C" or better. Other required courses are CE 335, 370, EE 346, 347, 350, 350L, 370, 370L, 450, 452, 453, 490, MAE 172, 330, 438, 490B or 490E, ET 365, 365L, plus an approved technical elective to a total of 132 units.

Minor in Environmental Engineering (code COE_UM01)

This interdisciplinary Minor in Environmental Engineering is designed for undergraduates from various engineering and science backgrounds who are interested in applying engineering approaches to environmental issues. Coursework in the minor focuses on engineering solutions to problems in preserving the quality of air, water, and soil by developing procedures and designing processes, consistent with current government regulation, to improve the environment and prevent pollution.

Requirements

A minimum of 6 units selected from the following core: CH E 475 or C E 364; CH E 455 or C E 469. Additional courses to complete the 18 unit minor may be selected from: CH E 415, 445, 465, 485; C E 466; MAE 490C.

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

Graduate Program Director

Mihir K. Das, Associate Dean for Instruction

Master of Science in Engineering (code COE_MS01)

The College of Engineering offers graduate study programs for the Master of Science in Engineering degree. Typical tasks and responsibilities undertaken by students in the curriculum 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. Additional information concerning the programs, special facilities, laboratories and research possibilities may be obtained from the College of Engineering.

Prerequisites

1. A bachelor's degree in an ABET accredited curriculum in engineering with a minimum GPA of 2.5; or
2. A bachelor's degree with a minimum GPA of 2.5 in engineering, mathematics, a natural science or other discipline with the requirement that essential undergraduate prerequisites in engineering be satisfied;
3. 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.
4. The Writing Proficiency Examination (WPE) must be passed during the first semester in residence unless taken and passed previously. Courses taken after the first semester without having passed the WPE will not be counted toward the graduate degree.

Advancement to Candidacy

1. Removal of all undergraduate deficiencies as determined by the Graduate Advisor;
2. Students may, at the discretion of the Graduate Advisor, be required to take examinations in some chosen areas;

Requirements

1. Completion of a minimum of 30 units beyond the bachelor's degree in upper division and approved graduate courses, including:
 - A. A minimum of 18 units of 500 and/or 600 level courses in engineering;
 - B. Six units of electives selected from approved upper division (400-level) or graduate courses from appropriate areas;
 - C. Completion of an acceptable thesis or project and/or comprehensive examination.

Note: Students are strongly advised to read and be familiar with the campus regulations described under "Graduate Programs" elsewhere in this *Catalog*.

Master of Science in Engineering Management (code COE_MS02)

Program Directors:

Dr. Mihir K. Das, Associate Dean for Instruction, CSULB College of Engineering

Kenneth Poertner, Director of Graduate Programs, CSUDH School of Business and Public Administration

The Master of Science in Engineering Management (MSEM) is a Pilot Program effective from Fall 2002 to Fall 2007. It is jointly offered by the College of Engineering at California State University, Long Beach (CSULB) and the School of Business and Public Administration at California State University, Dominguez Hills (CSUDH). The MSEM degree program is offered entirely over the Internet.

The MSEM is an interdisciplinary degree designed to integrate the development of management and engineering skills focusing on problem solving in the synthesis of technical, financial, and organizational requirements for engineering projects in a rapidly changing environment. The College of Engineering at CSULB has the primary responsibility for

the engineering component of the program, and similarly, the School of Business and Public Administration at CSUDH has the primary responsibility for the business and management component of the program.

Degree Designation

The degree is designated as the Master of Science in Engineering Management and is granted at California State University, Long Beach in the name of the two institutions in accordance with an agreement between both campuses of the California State University system. The diploma indicates the dual nature of the degree and specifies that it be granted only when requirements in both subject areas, as specified by the collaborating institutions, have been satisfied.

Program Supervision

Overall program supervision is the joint responsibility of the Associate Dean for Instruction, CSULB College of Engineering and the Director of Graduate Programs, CSUDH School of Business and Public Administration. The faculty guidance committees on both campuses will monitor the curriculum changes as needed. Students must be admitted to both institutions jointly.

Admission Requirements

1. A bachelor's degree in an ABET accredited curriculum in engineering with a minimum GPA of 2.5, or a bachelor's degree with a minimum GPA of 2.5 in engineering, mathematics, a natural science or other discipline that fulfills the essential undergraduate prerequisites in engineering. Foreign students must meet equivalent standard.
2. A minimum of two (2) years of professional engineering experience and demonstration of sufficient background to perform graduate study in business.
3. The general Graduate Record Examination (GRE) is required. A minimum score of 450 on the Graduate Management Admissions Test (GMAT) may be substituted for this requirement.
4. Applicants whose first or native language is not English are required to have a minimum score of 550 in 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.
5. The Writing Proficiency Examination (WPE) or its equivalent must be passed during the first session of enrollment unless taken and passed previously. Courses taken after the first session without having passed the WPE may not be counted toward the degree.

Advancement to Candidacy

1. Student must remove any deficiencies as determined by the Program Graduate Advisor.
2. At the direction of the Program Graduate Advisor, students may be required to take examinations in their chosen areas.
3. Students must have completed at least 18 units of core curriculum with a minimum grade-point average of 3.0.
4. Student must have passed the Writing Proficiency Examination or equivalent

Requirements

The MSEM program requires the completion of 33 semester units of coursework (core + capstone project) and any preparatory prerequisite coursework, as indicated below:

Prerequisite Coursework (subject credits only)

CSULB:

MSEM 406B Engineering Economy and Administration (3)

CSUDH:

MSEM 495D Special Topics in Financial Accounting/Business Finance (2)

MSEM 495D Special Topics in Business: Marketing Principles/Economics of the Firm (2)

Core Coursework

CSULB:

MSEM 591B Engineers to Managers - A Transition (3)

MSEM 570B Engineering Management Principles & Practices (3)

MSEM 506B Management of Engineering Technology and Innovation (3)

MSEM 507B Engineering Project Management (3)

MSEM 511B Advanced Manufacturing Management Systems (3)

CSUDH:

MSEM 502D Advanced Topics in Accounting (3)

MSEM 500D Advanced Topics in Finance (3)

MSEM 500D Human Behavior in Organizations (3)

MSEM 500D Strategic Marketing: Cases and Current Issues (3)

MSEM 595D Special Topics in Management: Team Management and Leadership (3)

Capstone Integrative Coursework – Culminating Experience

CSULB:

MSEM 596B Special Projects in Engineering Management (3)

Notes -

1. The prerequisite coursework may be waived for students who have successfully completed undergraduate courses in the disciplines indicated.
2. Students are strongly advised to read and be familiar with the campus regulations described under "Graduate Programs" elsewhere in the CSULB and CSUDH Catalogs.

Electives

CSULB: MSEM 461B, 483B, 505B, 508B and 532B.

Graduate Certificate in Systems Engineering (code COE_CT01)

Director: Dr. Mihir K. Das, Associate Dean for Instruction

The 18-unit Post Baccalaureate Certificate Program in Systems Engineering (SE) is designed to provide interested students or practicing engineers with the very latest in SE capability and the ability to plan and execute complex SE projects. The Certificate Program is focused toward development and management of complex systems. Each such complex system requires a clear SE Master Plan, a set of SE Methodologies, appropriate tools, a rigorous requirements flow-down technique, and a comprehensive Project Management Plan to enable system design and project management for effective and efficient human interaction.

Requirement

1. Completion of an accredited baccalaureate degree in engineering or equivalent;
2. Satisfactory completion of 18 units listed below;
3. File a program application card with Admissions and Records, and file for the Certificate at least one semester prior to completion;
4. The Certificate may be awarded concurrently or subsequently to baccalaureate degree.

Required Courses

The Certificate Program requires a minimum of 18 semester units, as indicated below.

1. System Engineering Core Courses, 6 units of the following: ENGR 532 and MAE 508.
2. Elective Engineering Management Courses, 6 units from the following: CECS 521, MAE 506 and 507
3. Elective Manufacturing Courses, 3 units from the following: ENGR 574, 595 and MEA 574
4. Advanced Engineering Mathematics/Analysis, 3 units from the following: EE 505, 508, MAE 501 and 502

Ph.D. in Engineering and Industrial Applied Mathematics (code COE_PH01)

Program Director: Dr. Mihir K. Das, Associate Dean for Instruction

Ph.D. in Engineering and Industrial Applied Mathematics, offered jointly by the College of Engineering at California State University, Long Beach and The Claremont Graduate University, allows students to pursue doctoral programs in most areas of engineering and applied mathematics.

The College of Engineering at California State University, Long Beach (CSULB) has the primary responsibility for the engineering portion of the program, and the Department of Mathematics at The Claremont Graduate University (CGU) has the primary responsibility for the applied mathematics portion. The program of study for each Ph.D. candidate is carefully integrated to ensure the interdisciplinary nature of each student's research.

Degree Designation

The degree shall be designated as the Doctor of Philosophy in Engineering and Industrial Applied Mathematics and shall be granted at the Claremont Graduate University in the name of the two universities in accordance with an agreement between CGU and CSULB. The diploma shall indicate the dual nature of the degree and shall specify that it is being granted only when requirements have been satisfied in both subject areas as specified by the collaborating institutions.

Program Supervision

Overall program supervision will be the responsibility of a committee (The Program Committee) consisting of two faculty members from the Mathematics Department at CGU and two faculty members from the CSULB College of Engineering. The Dean at CGU and the Dean of Engineering at CSULB will serve as ex-officio members of the Program Committee. The Chair of this committee shall be elected each year and shall alternate between CGU and CSULB committee members. Students must be admitted to both institutions jointly.

Admission Requirements

Admission will be granted to a limited number of qualified students, and therefore application should be made as early as possible. Applications are encouraged from both men and women, and particularly from members of minority and handicapped groups. Completed applications are due preferably by February 20 for the Fall semester and by October 31 for the Spring semester, although later applications may be allowed at the discretion of the Program Committee. Students shall be jointly admitted to the two campuses. The Program Committee has the responsibility of deciding admissions, consistent with campus regulations. (See Application Procedure on p. 10 of this booklet.)

To be admitted to the Joint Ph.D. Program, an applicant must have received a bachelor's or a master's degree in science, engineering, or mathematics from an accredited institution. He or she must, moreover, have attained such a scholastic record and present such confidential recommendations as to indicate that he or she is well qualified to pursue, with distinction, advanced study and research. Admission sometimes may have to be refused solely on the basis of limited facilities in the option desired.

GRE General is a requirement before admission. Applicants, whose first or native language is not English, are required to have a minimum score of 550 in 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.

Program Planning and Supervision

Within a semester of beginning study in the Joint Doctoral Program, the student arranges with the Program Committee for an advisor in Mathematics at CGU and an advisor in Engineering at CSULB. The student's program of study will be arranged individually by each student in collaboration with the advisors. However, the student's overall performance will be monitored by the Program Committee. The two advisors on the two campuses will confer periodically regarding the student's progress.

Plan of Study

After consultation with the advisors, the student must prepare and file with the Program Committee before the end of the first semester a Plan of Study for completing the course requirements for the degree. The purpose of the Plan is to ensure that the student is aware of the requirements for the degree. The Plan of Study must indicate the areas of study that the student will be taking in preparation for the preliminary examinations. In exceptional circumstances, a Plan of Study may be altered at a subsequent time by petition to the Program Committee.

A minimum of 72 units of course work, independent study, and research (including transfer credit) must be completed. Transfer credits 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 its equivalent at an accredited institution and must be directly related to the joint program and to the student's Ph.D. goals. Of the 72 units, a minimum of 24 units must normally be completed in the graduate engineering program at CSULB and a minimum of 24 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.

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 semester units of course work for master's degrees.

Preliminary Examinations

The student is required to pass written preliminary examinations. These examinations shall consist of four examination areas: two in engineering and two in mathematics. In each area there will be a three-hour examination. These examinations are usually taken after completion of the relevant course work at each institution. These examinations will be given two or three times a year at the discretion and under the control of the Program Committee. Should a student fail an exam, one retake will be allowed, after petition to the Program Committee.

Research Tools

A student in the Joint Ph.D. Program must demonstrate proficiency in problem-solving ability using computer programs. This demonstration may take different forms depending on the student's engineering sub-discipline, but it must include evidence that the student has used an appropriate computer language and an algorithmic method to solve a problem from an engineering discipline.

Doctoral Committee

During entry to the program and through the period of the main body of course work at CGU and CSULB, a student's progress will be monitored by the Program Committee. On successful completion of the preliminary examinations, the student may petition the Program Committee to constitute the Doctoral Committee. This committee is chosen by the student with advice from the faculty and with approval of the Program Committee, and must include at least two faculty members from each of CGU and CSULB and must provide both breadth and depth in mathematics and engineering in the faculty chosen. The Doctoral Committee supervises the student's progress through research preparation and Dissertation writing, and administers the qualifying and oral examinations for the degree. The Chair of the Doctoral Committee is the Dissertation supervisor.

Research Preparation

On completion of at least 48 units of course work (including transfer units) and completion of the preliminary examinations and research tool test, 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.

Research Proposal and Qualifying Examination

With these advanced courses as background, and with the guidance of the Doctoral Committee, the student shall define an area of proposed research and prepare 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 qualifying examination is an oral presentation to the Doctoral Committee by the student describing the research planned. The student shall be 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 work in both areas. The Doctoral Committee judges the fitness and quality of the Dissertation Proposal from this presentation and from the written proposal, and 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. (See CGU Math Department or the Registrar's Office at CGU for forms required to initiate these processes.)

Advancement to Candidacy

After successful completion of the Qualifying Examination and certification that all other requirements are fulfilled, the student is advanced to candidacy. This must occur at least six months before the Final Oral Defense. The form for this is available in the CGU Mathematics Department.

Dissertation and Final Oral Examination

On 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 oral defense will be held on the campus of the Dissertation supervisor.

Residency Requirements

Doctoral students must complete their programs in 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 12 units per semester or per summer session may be credited toward the degree.

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 Program Committee will consider petitions for extensions.

The residency requirements for the Ph.D. degree 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, on either or both campuses.

Students who receive transfer credit for 12 units or less may meet the residence requirement either by completing two full-time semesters of course work within a 24-month pe-

riod or by completing 36 units within a 48-month period. Those receiving transfer credit for 13 to 24 units may meet the residence 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.

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 units at either institution, including those who have finished their course units, must take the necessary steps to maintain continuous enrollment. This is achieved by registering for M499 Doctoral Study at Claremont Graduate University. Requests for leaves of absence must be submitted to each Registrar's Office and approved by both institutions according to the standards of each, and upon approval of leave should advise the Math Office at CGU and their department of study at CSULB. Contact each Registrar's Office for leave of absence policies.
2. International students registered for units at CSULB must provide the CGU International Student Advisor with proof of registration within two weeks of the beginning of the semester at CGU. Proof of full-time registration is required to maintain immigration status.
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.
5. 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. An official score for the GRE engineering subject examination is recommended for applicants with an engineering B.S., and for the mathematics subject examination for applicants with a mathematics B.S. The joint faculty program committee will review completed files for change of status.
6. The academic progress of students admitted to conditional status will be reviewed by the program committee prior to a decision about change of status.

Procedures for Student Admission

1. Students must complete application forms for both CGU and CSULB. In addition they must supply transcripts, at least 3 letters of reference (preferably on the forms supplied in the CGU package), and pay fees for both applications. Current and official GRE scores (on Q,A and V) are required, but if the exam has not been taken at the time of admission it must be taken within the first semester of enrollment.
2. Completed applications (and fees for both CGU and CSULB) are to be submitted to the CGU Admissions Office, 170 E. Tenth Street, Claremont, CA 91711-6163. (Do not send application materials to CSULB, as it will result in considerable delay.)

3. A complete file is reviewed by the CGU members of the Joint Ph.D. Program Committee. In the event of a negative review, a rejection letter is issued by CGU.
4. A positive review sets up the following steps. The LB application form and check, and copies of the transcripts and letters are sent to the CSULB Program Director, Dr. Mihir K. Das, Associate Dean for Instruction, College of Engineering, Phone 562-985-5257; FAX: 562/985-7561. (Email - mdas.csulb.edu) The LB members of the Joint Ph.D. Program Committee then review the application in consultation with professors in the appropriate discipline. Results of this review are transmitted to CGU Math. Upon a positive review the application and fee are sent to the CSULB Admissions Office to be processed. A negative review initiates a rejection letter from CGU.
5. A positive review (now from both CGU and CSULB) generates an Admission letter from CGU. Signatures from both campuses are required on this, so the letter is signed in Claremont and forwarded to the CSULB Registrar at LB for signature, who relays it to the student, and sends copies to CGU Admissions and Dr. Reddy.

Notes:

- A. The CGU Admissions office, regularly and routinely, informs students of the status of their application by letter. Missing items are noted.
- B. Since only complete files are transmitted from CGU to LB, information on the status of a file is available only from CGU (Rosa Delia Rosas, Admissions Office, 909-621-8069 or Mary Solberg, Math Department, 909-621-8080, email - mary.solberg@cgu.edu).
- C. In case of rejection it may be worthwhile to note reasons in the files.
- D. For any CSULB information relating to the Joint Doctoral Program, please contact Kim Truesdelle at 562-985-8032.

Teaching Practicum

Students who have completed coursework equivalent to a master's degree and who intend to pursue a career in university education may enroll in a Teaching Practicum for three units of credit. The student will receive instruction in teaching techniques and, under the supervision of a senior faculty member, will teach an undergraduate class in engineering or mathematics. In addition, opportunities are available for qualified Ph.D. candidates to teach undergraduate courses as part-time lecturers.

Courses (ENGR)

Lower Division

90. Special Topics in Engineering (1)

Selected topics from recent advances of interest to beginning engineering students. Course content will vary from year to year and may be repeated to a maximum of three units. (Lecture problems 1 hour).

101. Introduction to the Engineering Profession (1)

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).

202. Computer Methods in Engineering (3)

Prerequisite: CECS 174 and MATH 224. 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).

203. Engineering Problems and Analysis (3)

Prerequisite: MATH 120; 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 120; 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).

205. Surfing the Information Superhighway – Internet Resources and Services (3)

Prerequisite: ENGL 100. Overview of Internet resources, services and networked information systems for nonspecialists. Instructional and learning methods include a combination of lecture, on-line demonstrations, class discussions, guest speakers, and computer lab exercises. (Lecture-problems 3 hours.) Letter grade only (A-F).

Upper Division

3021. Energy and Environment: A Global Perspective (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Renewable and nonrenewable energy sources, including but not limited to fossil fuels, nuclear, solar, wind, wave, tides, geothermal, hydroelectric and biomass. Available world resources, market, trends, and technology. Energy conservation and energy balance. Practical energy alternatives and their social, cultural, and political impacts. Ecosystem and environment, human-induced climate changes. Environmental aspects of power generation, air pollution, acid rain, ozone depletion, and global warming. Recycling and blue print for a sustainable environment. (Lecture-Problem 3 hours) Letter grade only (A-F).

304. Engineering Problem Solving and Design (3)

Prerequisite: MATH 117 or three and one half years of high school mathematics, including algebra, geometry, intermediate algebra and one-half year of trigonometry. The problem solving process: Definition, Solution Alternative, and Implementation. Problem solving tools: Analytical, Graphical, and Computer-based. Procedures for creative problem solving. Nature of engineering design to meet a need. Design process overview. Critical thinking exercises using real-life examples. Team projects: Written reports and oral presentations required. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

310. Business Communications in Engineering Profession (3)

Prerequisites: ENGL 100, COMM 110. This course provides basic concepts for understanding and practice of communication in the changing world of business for managers and professionals. It examines the use of language and conversations in business settings and their role in coordinating actions, resolving breakdowns in work performance, and providing customer satisfaction. Course topics include: Practice in professional styles of business writing and formats, preparation of a formal report, development of competence in business conversation skills (written, electronic, and oral), and other selected topics. International, technical, and linguistic developments are integrated into various applications of business communication. (Lecture - Discussion 3 hours.) Letter grade only (A-F).

330. Manufacturing Processes (3)

Prerequisites: MAE 322. Primary manufacturing processes for metals, plastics, composites, and ceramics such as casting, metal-forming, injection molding, blow molding, and powder processing. Computer simulation. (Lecture-problems 2 hours, laboratory 3 hours.) Letter grade only (A-F).

Courses (ENGR)

340. Guitar Electronics: Engineering Sound (3)

Prerequisites: Upper division standing, completion of GE Foundation requirements, one course from G.E. category Blb. (Not open to students with credit in EE 333). Historical review of electromagnetic 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. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

350. Computers, Ethics and Society (3)

Prerequisites: ENGL 100, one computer programming course, 3 units from GE Category A.1 (Writing), and 3 units from GE Category C.2.b (Philosophy) or GE Category D (Social and Behavioral Science). An 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.)

370I. Astronautics and Space (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course 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, video-graphics and the Internet. (Lecture-problems 3 hours.) Letter grade only (A-F).

375I. Total Quality and Continuous Improvement (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. The course examines the global competitiveness and the use of Total Quality approach to achieve Continuous Improvement. The topics include the following: History of quality movement, Quality gurus and Deming's philosophy on TQM, Strategic planning, Customer satisfaction, TQM tools, Effective visual representation of data, Worker empowerment and teamwork, Supply chain management, Statistical tools for controlling quality, ISO 9000 and its role in quality improvement, Malcolm Baldrige National Quality Award, Deming's Prize, Industrial practice and Case studies. The course fosters teamwork with Team project reports and oral presentations. (Lecture-problems 3 hours.) Letter grade only (A-F).

391. Engineering and Civilization (3)

Prerequisites: ENGL 100 and a Critical Thinking course (A3 category of GE) or consent of instructor. Study of the interaction between human beings, the environment, resources, engineering and science, including the impact of engineering on society. Readings and lectures providing perspective and insight into current problems at the interfaces between engineering and other disciplines, especially anthropology, art, ecology, economics, philosophy, psychology, science and the social sciences. (Lecture-Problems: 3 hours.)

*400E. Engineering for Teachers (3)

Prerequisite: MATH 119A or three years of high school mathematics including algebra, geometry, and intermediate algebra. Learn how engineers solve problems for humanity. Explore the various engineering disciplines and learn how they relate to mathematics and science. Discover how things work. Build engineering projects. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

461. Manufacturing Resource Planning (3)

Prerequisites: Upper division standing. Basic principles of manufacturing resources planning, operations management, and control. Forecasting techniques, production planning and scheduling procedures, and analysis of manufacturing resources. Material inventory activities, facilities and physical plant layout, production process and equipment, and productivity and quality. Team projects using computer modeling software. (Lecture-problems 3 hours) Letter grade only (A-F).

483. Computer Integrated Manufacturing (3)

Prerequisite: ENGR 330. Principles and practices of the function of computers in controlling the manufacturing process, including hardware and software requirements for computer automation; computer architectures used in manufacturing; computer-aided design; manufacturing systems; computer controlled manufacturing equipment; simulation; quality assurance; programming the factory. (Lecture-problems 3 hours) Letter grade only (A-F.)

492B. Internship In Engineering (3)

Prerequisite: Upper division standing and permission of the instructor. A Co-Op field experience. Students who qualify can be placed in a major- or career-related, pre-professional experience as an employee in private industry or in public agencies. May be repeated a maximum of six units. (Lecture-problems 3 hours.)

Graduate Level

511. Quality Assurance in Manufacturing (3)

Prerequisites: CE 406 or consent of instructor, and graduate standing. In-depth studies of planning for quality, productivity and competitive positioning in manufacturing. Understanding the TQM process. Inspection and standardization and product reliability strategies. Case study projects. (Lecture-problems 3 hours.) Letter grade only (A-F).

532. Logistics Principles and Practice (3)

Prerequisite: Graduate standing or consent of instructor. Logistics concepts, history, industry and military practice, lessons learned, and the complete product life cycle. Logistics processes including maintainability, support resource identification and technical documentation and training. Engineering design influence on product maintenance and material and operational support. (Lecture-problems 3 hours.) Letter grade only (A-F).

574. Advanced Manufacturing Technology and Processes (3)

Prerequisites: Consent of instructor, and graduate standing. Build from manufacturing process into factory integration, study of advanced manufacturing processes including composites, electronics manufacturing, automated material handling, assembly, inspection, warehousing, factory and office of the future. Automation, robotic applications, flexible manufacturing systems, group technology and the economics of the automated systems. (Lecture and Computer Laboratory, 3 hours.) Letter grade only (A-F).

591. Engineers to Managers – A Transition (3)

Prerequisites: Consent of instructor and graduate standing. This course is designed to assist and equip engineers in making a successful transition into management. The subject areas include: Engineering mindset - its advantages and disadvantages; Traits of successful managers; Corporations as an intricate system of people, machines, and facilities; Management positions and their specific requirements; Management and inter-acting disciplines; Role of "people skills" in non-coercive supervision; Responsibilities of technical managers; Strategic planning and implementation; Managing changes and technology innovation; Total Quality Management (TQM) concepts; Team projects involving realistic scenarios and case studies. (Lecture-Problems 3 hours.) Letter grade only (A-F).

596. 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. Can be repeated for credit to a maximum of 6 units. Letter grade only (A-F).

790. Advanced Special Topics in Engineering (4)

Prerequisite: 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. Specific topics will be recorded on student's transcripts. Repeatable to a maximum of 8 units with different topics. Course Survey Form must be completed. Letter grade only (A-F).

795. Advanced Directed Studies (4)

Prerequisite: MS or Equivalent and formally admitted to the Ph.D. program. 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. Repeatable to a maximum of 8 units. Course Survey Form must be completed. Letter grade only (A-F).

798. Doctoral Dissertation (4-12)

Prerequisites: Enrollment is limited to students formally admitted to the Ph.D. program 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 and references to relevant source material must be submitted. Only upon a positive recommendation a student may embark on a dissertation. Minimum 4 units per semester. May be repeated until the work is completed; any work beyond the maximum of 12 units does not count toward the degree. Letter grade only (A-F).

Courses (MSEM)

406B. Engineering Economy and Administration (3)

Prerequisite or 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).

461B. Manufacturing Resource Planning (3)

Prerequisite: Upper division standing. Basic principles of manufacturing resources planning, operations management, and control. Forecasting techniques, production planning and scheduling procedures, and analysis of manufacturing resources. Material inventory activities, facilities and physical plant layout, production process and equipment, and productivity and quality. Team projects using computer modeling software. Letter grade only (A-F).

483B. Computer Integrated Manufacturing (3)

Prerequisite: ENGR 330. Principles and practices of the function of computers in controlling the manufacturing process, including hardware and software requirements for computer automation; computer architectures used in manufacturing; computer-aided design; manufacturing systems; computer controlled manufacturing equipment; simulation; quality assurance; programming the factory. Letter grade only (A-F).

505B. Quantitative Methods for Engineering Managers (3)

Prerequisites: MAE 501 or 502 or equivalents. Concepts and methods for using quantitative approaches in engineering management decision-making. Various computer-based tools that can be used in management decision-making to provide the basis for the decision or to help validate decisions made using subjective approaches. Probabilistic methods, forecasting, various forms of the linear program model, network analysis, dynamic programming, Monte Carlo simulation and queuing models. The course is application oriented with sufficient theoretical background provided to effectively use the computer-based tools and properly interpret their results. Methodologies for formulating the problem are emphasized, so that the applicable quantitative techniques can be implemented. Letter grade only (A-F).

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. Trade studies and risk management. Projects are assigned and written reports and oral presentations are required. Letter grade only (A-F).

511B. Advanced Manufacturing Management Systems (3)

Prerequisite: Consent to instructor. Advanced management systems for Integrated Product Development (IPD) and Concurrent Engineering (CE); Quality, Productivity and Costs, with emphasis on Just-in-Time Manufacturing (JIT); Quality-Based Manufacturing Systems: TQM and ISO 9000; Customer Requirement and Quality Function Deployment (QFD); Design for Manufacturing and Assembly (DFMA) and other defect prevention systems, such as Poka-Yoke; Demand-Driven, "Pull" type manufacturing systems. "Lean Enterprise" concepts. Letter grade only (A-F).

532B. Logistics Principles and Practice (3)

Prerequisite: Graduate standing or consent of instructor. Logistics concepts, history, industry and military practice, lessons learned, and the complete product life cycle. Logistics processes including maintainability, support resource identification and technical documentation and training. Engineering design influence on product maintenance and material and operational support. Letter grade only (A-F).

570B. Engineering Management Principles and Practices (3)

Prerequisites: CE 406, graduate student or consent of instructor. Transition of engineers into management. Analysis of technical managers' 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).

591B. Engineers to Managers - A Transition (3)

Prerequisites: Consent of instructor and graduate standing. This course is designed to assist and equip engineers in making a successful transition into management. The subject areas include: Engineering mindset - its advantages and disadvantages; Traits of successful managers; Corporations as an intricate system of people, machines, and facilities; Management positions and their specific requirements; Management and inter-acting disciplines; Role of "people skills" in non-coercive supervision; Responsibilities of technical managers; Strategic planning and implementation; Managing changes and technology innovation; Total Quality Management (TQM) concepts; Team projects involving realistic scenarios and case studies. 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. Can be repeated for credit to a maximum of 6 units. Letter grade only (A-F).

CENTER FOR ENVIRONMENTAL STUDIES

College of Natural Sciences and Mathematics

Director

Roswitha B. Grannell

Location

Peterson Hall 3 (PH), Room 132

Telephone

(562) 985-4927 or (562) 985-4809

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Certificate in Environmental Studies (code CNSMCT01)

The Center for Environmental Studies has as its objectives (1) creation of an awareness of the kind and scope of environmental problems, (2) preparation to analyze environmental problems and issues and (3) training in research in, and solution of, environmental problems.

The Center offers the Environmental Studies Certificate Program which is comparable to an academic minor. It has three components: natural environment prerequisites (or corequisites), core requirements, and elective courses distributed in human behavior, resources and analysis and application.

The pattern of completion for the certificate is directed toward both the technically trained, research oriented student and the liberal arts, humanistically oriented student. Students in both areas must contact the Director, Center for Environmental Studies, for entry into the program. This contact should be made as early as possible in the student's academic career so that he or she may receive counseling in the most appropriate course work.

Requirements

1. A bachelor's degree (may be completed concurrently);
2. Consultation with the director of the program;
3. Overall GPA of 2.0 in all work attempted;

4. 33 units distributed as follows:

- A. Prerequisite or Corequisite Courses (nine units outside the major department selected from the three categories below; at least one laboratory course from categories A. or B. must be included, and a second is highly recommended);
 - (1) Life Sciences: At least three units from BIOL 200, 313, 324, 350, 351, 353, 427, 450, 453, 464; MICR 211;
 - (2) Physical Sciences: At least three units from CHEM 100, 111A, 111B, 202, 302; GEOL 102, 104, 105, 160, 163, 465; PHYS 100A, 100B, 151, 152;
 - (3) Geography: 140, 440, 442, 444;
- B. Core requirements (nine units; upon petition to the Director, three units of E/ST 499 may be substituted for E/ST 490 (2 units) - (1 unit), taken concurrently (only the sections entitled Environmental Field Studies may be used; the prerequisite for these courses is prior completion of six units of Section A, above, including the laboratory);
- C. Elective Requirements (15 units, distributed over the following three categories; nine of these units must be outside the major department, six units must be outside the College, and six units must be at upper division level);
 - (1) Human Behavior: At least three units outside the major department from MICR 303; POSC 442; PSY 351 or SOC 335; SOC 350;
 - (2) Man and Resources: At least three units outside the major department from BIOL 100; CH E 475; C E 364; GEOG 160, 304, 455, 460, 467; GEOL 190, 191; H SC 422; SOC 410;
 - (3) Analysis and Application: Three units from BIOL 260; ECON 380; GEOG 486; H SC 485; MATH 180; PSY 310. (Upon approval of the Director, one additional course from this category may be used to fulfill Section C, Elective Requirements in lieu of a course from A. or B. above).

Courses (E/ST)

Upper Division

490. Special Topics in Environmental Studies (1-3)

Prerequisite: Consent of instructor. Topics of current interest in environmental studies selected for intensive development. May be repeated for a maximum of six units with different topics. Topics will be announced in the *Schedule of Classes*. Upon approval of the director of the Center for Environmental Studies, this course is acceptable for credit in lieu of equivalent units in Section C, Elective Requirements. (Lecture 1-3 hrs.)

499. Directed Studies (1-3)

Prerequisite: Consent of instructor. Independent study under the supervision of a faculty member. Upon approval of the director of the Center for Environmental Studies this course is acceptable for credit toward the Environmental Studies Certificate in lieu of equivalent units in Sections B and C (Core Requirements and Elective Requirements).

ENVIRONMENTAL SCIENCE AND POLICY

*College of Natural Sciences and Mathematics
College of Liberal Arts*

Directors

Stanley C. Finney
Darwin C. Hall

Department Offices

Geology, PH3 102A
Telephone: 562-985-4809; Fax: 562-985-8638
Environmental Science and Policy, SS/PA 340
Telephone: 562-985-8097; Fax: 562-985-5352

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Stuart R. Berryhill, Chemistry and Biochemistry
Stanley C. Finney, Geological Sciences
Darwin C. Hall, Economics
Peter J. Hodum, Biological Sciences
Daniel O. Larson, Anthropology
Wade E. Martin, Economics
Xuemei Liu, Economics
Christine M. Rodrigue, Geography
Suzanne P. Wechsler, Geography
Antonia Wijte, Biological Sciences

The Environmental Science and Policy degree program is jointly housed in the College of Natural Sciences and Mathematics and the College of Liberal Arts, reflecting its inherent interdisciplinary nature.

Today's environmental problems call for people who are educated in more than one discipline, highly trained in technical skills, and aware of the political, economic, and social dimensions of environmental decisions. The degrees in Environmental Science and Policy provide solid training in basic physical, biological, and social sciences, and also address the human involvement in environmental issues. This curriculum prepares students for professional careers in Environmental Science and Policy and for subsequent graduate study in MS, PhD, and law degree programs.

In the narrowest sense, environmental science is the study of the impact of human systems on physical and biological systems, and the dependence on natural resources

by human systems. In a broader sense, environmental science is the study of the interaction and co-evolution of human, physical, and biological systems. Natural Science is the study of physical and biological systems. Social science is the study of human systems – economic systems, political systems, human perceptions, and human interactions. Environmental science requires knowledge of both natural and social science. Environmental policy is concerned with the most effective means of intervening to alter the pathways among which natural and human systems co-evolve. Effective intervention considers benefits and costs, uncertainties and risks, limits of knowledge, and presupposes the purposes of intervention, and the values from which the purposes are derived. The purpose of environmental science and policy is to design, evaluate, and implement policies that alter the impact of human systems on physical and biological systems, and the pathways by which natural and human systems co-evolve.

Both Bachelor of Science and Bachelor of Arts degrees are offered. Most required courses are those offered in related disciplines in the College of Natural Sciences and Mathematics and the College of Liberal Arts. The curriculum fosters cross-disciplinary communication in the several required courses common to both degree programs and particularly in the Environmental Science and Policy courses (ES P 200, 300, 400).

The mix of required courses includes both natural and social sciences in both degree programs, while emphasizing natural sciences in the BS program and emphasizing social sciences in the BA program. Elective courses in the BS program enhance the students' knowledge in natural sciences and quantitative/computer skills in the social sciences. Elective courses in the BA program emphasize applications of social science to environmental issues and policy, while permitting students to further develop their knowledge of natural sciences. The curricula of the two degrees are designed to encourage and facilitate students pursuing double majors with departments in natural or social science.

Career Paths

The Directors together with the Faculty are responsible for advising majors in the Environmental Science and Policy degree program. Majors are assigned to appropriate advisors during their first semester in the program and are encouraged to consult with their advisor every semester. Students will be advised to select elective courses to develop areas of interest and to further their career objectives.

BS Degree: We advise majors to consider jointly majoring or minoring in ecology, microbiology, chemistry, geology, economics, or geography. The BS degree requires an advanced level of understanding of earth systems, living systems, and the role and effect of chemicals in natural systems. Graduates are trained for entry positions in industry and government that require a high degree of specialization in technical analyses in natural sciences, or quantitative and computer methods in social sciences. Graduates with the BS

Degree with a track in natural sciences will be qualified for graduate programs (MS and PhD) in biological sciences, geology or chemistry, at most universities in the country. Graduates with the BS degree with a social science track are qualified to apply for the MS program in Environmental Health Sciences at UCLA, and subsequently the interdepartmental doctoral program in Environmental Science and Engineering degree at UCLA; the Ph.D. program in ecology and economics at UC Santa Barbara; the Ph.D. program in Social Ecology at UC Irvine; and the MA and Ph.D. program in Energy and Resources at UC Berkeley.

BA Degree: We advise majors to jointly major in either economics or geography, pursue the minor in journalism or the option in public relations in journalism, the political science major or minor, the minor in public administration in political science, the interdisciplinary minor in public policy, or the major or minor in international studies, depending on the student's career goals and interests. Graduates are especially well prepared for positions in state and local government, private consulting firms, energy companies, news organizations, environmental advocacy groups, consulting firms, and public relations firms. Graduates are prepared to directly enter Ph.D. programs in economics and geography, as well as MBA programs in environmental science and management, MA programs in economics or geography, and law school.

Bachelor of Arts in Environmental Science and Policy (code ES_PBA01) (120 units)

The B.A. degree program emphasizes the social sciences, with a basic introduction to physical and biological sciences applied to natural systems. Required courses emphasize social sciences and include breadth in natural sciences. Elective courses include social sciences applied to environmental analysis and policy, and permit some additional coursework in natural sciences.

Lower Division: BIOL 200, 260; CHEM 202; ECON 100, 101; ES P 200; GEOL 102, 104, 280; MATH 115 or 119A or 122.

Upper Division: BIOL 350; ECON 310; one course selected from ECON 462, 463, and 464; ES P 300, 400; GEOG 485; one course selected from GEOG 442, 455, and 460; GEOL 300I; POSC 431.

Recommended Courses for General Education Requirements: Category D.1b: POSC 100; Category D.2: ECON 306I or GEOG 100 (or 100W).

Additional 21 units of course work selected from the following courses, 12 units of which must be Upper Division or approved by the advisor: BIOL 303I; COMM 330; ECON 403, 410H, 434, 462, 463, 464, 481, 486, 490, 495; GEOG 140 or 150, 160, 400, 440, 442, 444, 452, 455, 460, 483, 486, 488, 492; GEOL 190, 303I; HIST 481, 482; MICR 200, 303; PHYS 100A or PHYS 101A; POSC 329, 442; SOC 494; S W 491.

Bachelor of Science in Environmental Science and Policy (code ES_PBS01) (123 units)

The B.S. degree program emphasizes the physical and biological sciences, with a basic introduction to social science methods applied to human systems. Required courses emphasize natural sciences and include breadth in social sciences. Elective courses include physical and biological sciences, and technical courses in social sciences.

Lower Division: BIOL 211A, 211B, 260; CHEM 111A, 111B; ES P 200; GEOL 102, 104, 280; MATH 119A, 119B (or 122, 123).

Upper Division: BIOL 350; CHEM 327 (or 320A,B); ECON 300 (or 100 and 101), 310; one course selected from ECON 462, 463, and 464; ES P 300, 400; GEOG 485; GEOL 300I.

Recommended Courses for General Education Requirements: Category D.1b: POSC 100; Category D.2: ECON 306I or GEOG 100 (or 100W).

Additional 20 units of course work selected from the following list, 8 units of which must be Upper Division or approved by the advisor. For those in Natural Science track, 12 units must be in Biology and Microbiology, Geology, Chemistry, and Chemical Engineering. PHYS 100A,B (or 151, 152) required for the Natural Science track. For those in Social Science track, 12 units must be in Economics or Geography.

PHYS 100A,B or PHYS 151, 152; BIOL 303I, 313, 324, 427, 450, 451, 456, 457, 460, 464, 465, 467; CHEM 251, 320A,B, 377A,B, 441A, 451; CH E 475; ECON 403, 410H, 434, 462, 463, 464, 481, 486; GEOG 400, 440, 442, 444, 452, 455, 460, 483, 486, 488; GEOL 190, 303I, 431, 460, 461, 477, 535, 554, 556; MICR 200, 211, 303, 441; NSCI 492

Environmental Science and Policy Courses (ES P)

Lower Division

200. California Environmental Issues (3)
Prerequisites or corequisites: GEOL 102, 104, BIOL 200 or 211A. Introduction to the history, nature, status, and future of a major environmental issue in California (the coastal environment, water resources, land use, or energy supplies). 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. (Lecture 2 hrs., discussion 1 hr., and field trips.) Letter grade only (A-F).

Upper Division

300. Environmental Policy, Institutions, and Law (3)
Prerequisites: Completion of GE Foundation requirements; ECON 310, ES P 200, POSC 100. Environmental policy and law focuses on political institutions, property rights, federal and state roles in decision-making, and challenges for environmental policy. Decision-making is examined in the context of the rights and limits of both private parties and the broad public interest. Emphasis is on use of science in decision-making, choices between regulations and incentives, and role of bureaucracy in resource policy. Examples of legal principles as applied to environmental regulation by federal and state governments. Case studies from air pollution, water pollution, land development, wetlands and coastal management. Letter grade only (A-F). (2 hrs lecture, 1 hr discussion).

400. Environmental Science and Policy Capstone Project (3)
Prerequisites: BIOL 350, ECON 462 (or 463 or 464), ES P 300, GEOG 485, GEOL 300I. Consists of an interdisciplinary evaluation of the physical, biological, social, economic, and legal dimensions of environmental policies. The instructor will select from the ecosystems that are part of the larger Southern California Bight – and policies with associated environmental impacts – for evaluation and analysis. Examples include policies to reduce, control, or treat surface water run-off, establishing or changing the management of marine protected areas, dredging in the harbors, and decisions to develop in or adjacent to wetlands. Students will transmit results to the public or appropriate legislative bodies, agencies, or courts for consideration and deliberation in legislative, policy, or judicial decisions. (2 hrs lecture, 1 hr discussion, and field trips). Letter grade only (A-F).

ENGINEERING TECHNOLOGY

College of Engineering

Department Chair

Anastasios G. Chassiakos

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Tesfai Goitom

Emanuel Jarasunas (Emeritus, 2002)

Tulin E. Mangir

Thomas L. Robinson

Ray R.T. Wang

Parviz Yavari

Associate Professor

Elhami Nasr

Assistant Professor

Nezih Gunal

Undergraduate Advisors

Ray R. T. Wang (Computer and Electronics)

Tesfai Goitom (Construction Engineering Management)

Parviz Yavari (Manufacturing)

Thomas L. Robinson (Quality Assurance and Environmental Technology)

Certificate Advisors

Emanuel Jarasunas (Safety Operations)

Tesfai Goitom (Facilities Operations)

Administrative Support Coordinator

Ameeta Perera

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring detailed information should contact the department office for referral to one of the faculty advisors.

Construction Engineering Management and Engineering Technology Advisory Council

The advisory council, composed of leaders actively engaged in areas of construction and technology with which the programs are concerned, continually provides information and guidance about industrial developments in methods, materials and techniques so that the programs reflect the best of current practices. The members examine various aspects of the programs and make recommendations for changes in course content, methods and/or facilities. Present membership in the council is made up of representatives from the different sectors of the American industries or corporations.

Bachelor of Science Degree in Construction Engineering Management Program

The four-year program in Construction Engineering Management leads to the Bachelor of Science degree. Major emphasis is placed on organizing and managing the construction phase of society's efforts to improve the environment. The constructor is an important member of the building team and requires a professional knowledge of techniques, materials, equipment, job planning and cost control to add to the contributions of the planning and design professions. Graduates of this program can help supply the urgent needs of the construction industry and its related fields.

Every effort is made to provide a well-integrated program which will give the student the opportunity to develop the proficiencies necessary for a successful, professional career in construction. The program is also designed to accommodate students who may wish to enter the University in a four-year program, or who may wish to transfer credits earned to other colleges or approved technical or military service Schools. It is recommended that prospective students, prior to submitting an application for admission, be advised by a member of the Construction Engineering Management faculty to discuss departmental requirements and the admission requirements of the University.

Bachelor of Science Degree in Engineering Technology Program

The Engineering Technology Program is a practice-oriented program. It serves the state of California and the nation by providing high quality, applications-oriented education that prepares students to become professionals and perform high quality technical, administrative or managerial work in an existing or emerging technological field. The Engineering Technology graduates are provided with excellent education in the fundamentals of Engineering Technology through a combination of theory and laboratory practice, and with the ability to apply their knowledge to transform their ideas into working systems.

The Engineering Technology program has been developed to accommodate students who may wish to enter the University in a four-year program, or who may wish to transfer credits earned in other colleges or approved technical or military service Schools. It is recommended that prospective students, prior to submitting an application for admission, be advised by a member of the Engineering Technology faculty to discuss departmental requirements and the admission requirements of the University.

Environmental Technology Option

The Environmental Technology Option program is to provide career educational opportunities to students whose technological interests and aptitudes are applications-oriented. The goal is to produce occupational-ready college graduates with practical skills and potential for growth to meet defined technical manpower needs, primarily for California's environmental industry. To achieve these goals, emphasis is placed on meeting students' needs through lecture and laboratory teaching, through the co-op program with local industry, and through other relevant learning experiences.

In addition to acquiring technical knowledge and skills, graduates will be able to communicate well. They will be prepared not only for immediate employment but for continuing development as citizens and responsible human beings as well. This will be accomplished by requiring appropriate courses in technical fields, communications, and in general education courses. Furthermore the ethical considerations of environmental issues will have a major role throughout the curriculum. Finally, every effort is made to help the students in proper job placement upon graduation.

Manufacturing Technology Option

The objective of the Manufacturing Technology Option, accredited by The TAC (Technology Accreditation Commission) of ABET (Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710, website: <http://www.abet.org>), is to prepare graduates to pursue careers in the application of methods required by industry to manufacture products. Emphasis is placed on specific job skills required of entry-level professionals in manufacturing technology such as the evaluation and implementation of manufacturing processes and equipment, plant planning and layout, quality control systems, tool design, manufacturing standards and cost control, computer applications, safety, automation, and integrated product and process development. Additional emphasis is placed on oral and written communication skills and manufacturing management and leadership principles. Graduates of the program will be employed in the manufacturing engineering, production, production control, procurement and materials management departments of both large and small companies in all areas of the manufacturing industry. The major is designed to meet TAC of ABET criteria for accredited programs in engineering technology.

Quality Assurance Technology Option

The objective of the Quality Assurance Technology Option program is to prepare graduates to pursue careers in the practical application of quality systems required to produce quality products in both the manufacturing and service in-

dustry. Emphasis is placed on specific job skills required of entry-level professionals in quality technology such as the evaluation and implementation of quality systems to support manufacturing processes, quality assurance, process improvement, quality inspection systems, measurement science, quality related computer hardware and software applications, product safety, reliability and maintainability, statistical process control and industrial designed experiments, and integrated process development. Also included are oral and written communication skills, and quality management and leadership principles. Graduates of the program will find jobs in quality engineering, quality assurance, product assurance, supplier assurance, configuration and data management, procurement, software quality assurance, production, operations, material management, and industrial engineering departments of both large and small companies in all areas of the manufacturing industry and service industry.

Bachelor of Science in Electronics and Computer Engineering Technology

The Electronics and Computer Engineering Technology program is designed to provide a solid technical foundation to its graduates which will enable them to perform well in a variety of employment situations. The program focuses on applications of current electrical, electronics, and computer technologies to solve real-world problems by offering a broad curriculum which covers current trends in the industry.

The program has been developed to accommodate students who may wish to enter the University in a four-year program, or who may wish to transfer credits earned at other colleges or approved technical or military service schools. It is recommended that prospective students, prior to submitting an application for admission, be advised by a member of the Electronics and Computer Engineering Technology faculty to discuss departmental requirements and the admission requirements of the University. The two options under the B.S. in Electronics and Computer Engineering Technology are:

Option in Electronics Technology

The Electronics Option, accredited by TAC of ABET (Accreditation Board for Engineering and Technology Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710, website: <http://www.abet.org>), prepares the student for a position as a technologist, 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 option emphasizes written and oral communications skills as well as modern methods of industrial administration and supervision. The option is designed to meet ABET criteria for accredited programs in engineering technology.

Option in Computer Technology

The primary objective of the Computer Option, accredited by TAC of ABET (Accreditation Board for Engineering and Technology Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710, website: <http://www.abet.org>)

www.abet.org), is to prepare graduates to pursue careers related to manufacturing, integration, and support of computer systems. 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. The Computer Option is available to students interested in the manufacturing of computers and the applications and operations aspects of computer hardware and software. The option is designed to meet ABET criteria for accredited programs in engineering technology. The graduates of this program will find employment in industry and organizations where a combination of practical hardware and software background is important.

Engineering Technology Facilities

The multi-million dollar building for Engineering Technology is designed with laboratories and modern equipment for instruction in planning and scheduling, foundry and pattern-making, metallurgy and heat treating, metrology, quality assurance, materials testing, electronic systems and testing, electro-chemical processes, microelectronics, industrial electricity, plant layout, robotics and control, computer networks, data acquisition, and CAD/CAM.

Bachelor of Science in Construction Engineering Management (code ET__BS01) (132 units)

All Construction Engineering Management students must receive a minimum grade of "C" in each of the prerequisite courses before enrolling in any Construction Engineering Management course. In addition to any other all-university requirements regarding grade point averages for graduation, a Construction Engineering Management student must achieve a minimum 2.0 average in all Construction Engineering Management courses.

Students enrolled in the Construction Engineering Management B.S. program must complete a minimum of 132 units. These courses cover the broad disciplines and functions of Construction Engineering Management.

Requirements

Lower Division Basic Engineering Science Courses: CHEM 111A; MATH 120; ENGR 203; PHYS 100 A&B; CEM 121, 202, 204, 205, 205L.

Construction Engineering Management Courses:

Lower Division: ACCT 201 or CEM 201; CEM 220, 225, 225L, 230, 235, 235L.

Upper Division: CEM 300, 300L, 304, 309, 321, 322, 325, 328, 330, 335, 335L, 404, 410, 421, 422, 426, 428, 430, 431, 435, 435L, 490; ECON 300; ENGR 310; MGMT 300.

Upper Division Elective Courses: Plus six units of approved electives selected in consultation with an advisor from: CEM 374, 409, 423, 438; FIN 342.

Bachelor of Science in Engineering Technology

All Engineering Technology students 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, an Engineering Technology student

must achieve a minimum of 2.0 average in all Engineering Technology courses.

Students enrolled in the Engineering Technology B.S. program must complete a minimum of 130 units. These courses cover the broad disciplines and functions of Engineering Technology.

Requirements

Core Engineering Technology Courses for Environmental Technology, Manufacturing, and Quality Assurance:

Lower Division: CHEM 111A, MATH 120, ENGR 203, ENGR 203L, PHYS 100A&B, ET 101, 170, 202, 202L, 204, 205, 205L.

Upper Division: ECON 300, ET 301, 301L, 307, 309, 311, 312, 335, 335L, 410, 435, 435L.

Option in Environmental Technology (code ET__BS06) (130 units)

Lower Division: ET 206, 209, 209L, 210, 213.

Upper Division: ET 319, 329, 329L, 400, 400L, 449, 449L.

Select at least 11 units of approved electives in consultation with an advisor, from the following courses: ET 390, 390L, 409D, 418, 476, 485, H/SC 400, 401, 422.

Option in Manufacturing Technology (code ET__BS04) (130 units)

Lower Division: ET 244, 244L, 264, 264L.

Upper Division: ET 302, 302L, 304, 313, 313L, 390, 390L, 418, 461, 498.

Emphasis A: ET 363, 365, 365L, plus at least 4 units of electives in consultation with an advisor from the following courses: ET 387, 387L, 409C, CEM 374.

Emphasis B: ET 320, 419, 420, plus at least 2 units of electives in consultation with an advisor from the following courses: ET 409D, FIN 220, CEM 374.

Option in Quality Assurance (code ET__BS05) (130 units)

Lower division: ET 244, 244L, FIN 220.

Upper division: ET 302, 302L, 304, 313, 313L, 320, 390, 390L, 418, 419, 420, 461, 498, plus at least 1 unit of electives in consultation with an advisor from the following courses: ET 409D, CEM 374.

Bachelor of Science in Electronics and Computer Engineering Technology

All Electronics and Computer Engineering Technology students must receive a minimum grade of "C" in each of the prerequisite courses before enrolling in any Electronics and Computer Engineering Technology course. In addition to any other all-university requirements regarding grade point averages for graduation, an Electronics and Computer Engineering Technology student must achieve a minimum of 2.0 average in all Electronics and Computer Engineering Technology courses.

Students enrolled in the Electronics and Computer Engineering Technology B.S. program must complete a minimum of 134 units. These courses cover the broad disciplines and functions of Electronics and Computer Engineering Technology.

Requirements

Core Electronics and Computer Engineering Technology

Courses:

Lower Division: CHEM 111A; MATH 120; ENGR 203, 203L; PHYS 100 A&B; ET 101, 170, 202, 202L, 204, 205, 205L, 250, 250L, 252, 252L, 255, 255L, 260, 260L, 286, 286L.

Upper Division: ET 309, 311, 360, 360L, 386, 386L, 387, 387L, 388, 388L, 410, 442, 442L, 488, 488L.

Option in Electronics Technology (code ET__BS02) (134 units)

Upper Division: ET 341, 341L, 350, 350L, 441, 444, 447, 447L, 460, 460L.

Select at least 2 units from the following, in consultation with an advisor: ET 301, 301L, 409B, 445, 445L.

Option in Computer Technology (code ET__BS03) (134 units)

Upper Division: ET 486, 486L, 487, 487L, 489, 489L, 492, 492L, 494, 494L, 497, 497L.

Select at least 3 units from the following, in consultation with an advisor: ET 301, 301L, 409E, 491, 491L.

Fieldwork Requirements

Fieldwork experience is required for the BS in Construction Engineering Management, the BS in Engineering Technology (all options) and the BS in Electronics and Computer Engineering Technology (all options), 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.

Facilities Operations Certificate (code ET__CT01)

The Certificate Program in Facilities Operations is designed to qualify the graduate to serve in plant engineering, industrial construction coordination, facilities development and design, plant layout, and facilities project management. Examples of the myriad positions available to the graduate of this program include facilities planner, construction supervisor, facilities or plant supervisor, facilities project analyst, and facilities designer analyst.

This program provides the Facilities Operations graduate with a depth of technical knowledge in facilities operations-oriented technical courses, as well as the knowledge of behavioral sciences essential for managing technical functions.

Requirement

1. The Certificate in Facilities Operations may be earned concurrently with or subsequent to the baccalaureate degree.
2. This program is open to all majors who have fulfilled the prerequisites as stated below.
3. The program requires a total of 25 units as specified below.
 - a. The completion of supporting technical courses chosen in consultation with an advisor.
 - b. 25 units are required from the following courses: CEM 410 or ET 410, CEM 121, 230, 321, 374, 409, 431, 432, 433, 434, 436.

4. Any deviation from this program requires the written permission of the program advisor.

Safety Operations Certificate (code ET__CT02)

The Certificate Program in Safety Operations is designed to prepare students for safety positions that require a strong background in the technology of safe industrial environments. Examples of this kind of position are manufacturer's safety representative, manufacturing facilities safety analyst, traffic safety analyst, and representative of California or Federal agencies involving public safety. This interdisciplinary program provides the student with a depth of technical training in safety, and related technical courses, including the experiences in human resources management necessary to effectively supervise safety programs.

Requirements

1. The Certificate of Safety Operations may be earned concurrently with or subsequent to the baccalaureate degree.
2. This program is open to all majors who have fulfilled the required prerequisites as stated below.
3. The program requires a total of 24 units as specified below:
 - a. The completion of supporting technical courses chosen in consultation with an advisor.
 - b. 24 units are required from the following courses: ET 307, 309, 311, 319, 329, 329L, 400, 400L, 409, 410, 420, 449, and 449L.
4. Any deviation from this program requires the written permission of the program advisor.

Engineering Technology Courses (ET)

Lower Division

101. Introduction to Engineering Technology (1)

Survey of the professional activities and environment of the engineering technologist. Course covers the role of the 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.

170. Engineering Drafting and Design (3)

Prerequisite: Sophomore standing. Graphic communication including freehand sketching. Introduction to blueprinting reading and computer aided drafting. Emphasis on engineering drafting practices: general standards, tolerances, thread series, welding joints, surface finishes, fasteners, and structural shapes. (Lecture 1 hour, laboratory 3 hours) Letter grade only (A-F).

202. Probability and Statistics for Technology (3)

Prerequisite: High school algebra. Corequisite: ET 202. 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: Two years high school algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Corequisite: ET 202. 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 120, PHYS 100A. Force systems acting on structures, moments, equilibrium, centroids, trusses, beams, ca-

bles, 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. An overview of computer systems, computer hardware, and software development. Hardware topics include the central processing unit and memory, input/output devices, storage mechanism, and communication. Software topics include programming languages, operating systems, and systems analysis and design. A programming language will be used for lab activities. (Lecture – discussion, exercise, 1 unit) Letter grade only (A-F). Same as CEM 205

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

206. Introduction to Environmental Hazardous Materials and Waste Technology (3)

Prerequisites: CHEM 111A, PHYS 100A. Overview of the environmental effects of industrial pollution and the history of environmental legislation. Study of industrial processes and the generation of waste streams in selected industries. Introduction to the concepts of sustainable development, energy conservation, waste minimization and waste treatment. (Lecture-Discussion 3 hours.)

208. Hazardous Waste Stream Generation, Reduction, Treatment (3)

The study of industrial processes and their generation of waste streams in selected industries including: electroplating, metal finishing and printed circuit board production, oil refining and chemical production, general manufacturing, printing and graphic reproduction, agriculture and consumer services. The course will center on various raw materials and chemicals used in industry, examining the changes that occur as they move through the industrial process, as well as understanding the material balance concept of inventory. Discussion of applicable regulations will be included, and the importance of waste minimization/treatment concepts will be stressed.

209. Environmental Applications of Physical and Organic Chemistry (2)

Prerequisite: CHEM 111A. Applications of physical and organic chemistry in environmental science and engineered environmental systems. (Lecture-Discussion 2 hours.)

210. Hazardous Material and Waste Management (3)

Prerequisites: CHEM 111A, ET 206. A study of the requirements of federal, state and local regulations relating to the management of hazardous materials and hazardous wastes. Particular focus on compliance with shipping, storage, labeling, sampling, and inventory and release reporting requirements. (Lecture-Discussion 3 hours.)

212. Hazardous Materials Management Application (3)

The study of the requirements and applications of federal, state and local laws and regulations relating to hazardous materials. Emphasis on compliance with Department of Transportation, Occupation Safety and Health Administration (OSHA) Hazard Communication, Superfund Amendments and Reauthorization Act (SARA) Title III community Right to Know, Underground Tank, Asbestos, Proposition 65, and Air Toxics Regulation. The course will provide the student with an understanding of the legal portion of hazardous materials laws; as well as, applications of these laws.

213. Environmental Health, Safety and Emergency Response (3)

Prerequisites: CHEM 111A, BIOL 211A, ET 206. Hands-on instruction in safety and emergency response to chemical and physical exposures in industrial and field settings. Acute and chronic health effects produced by exposure to chemical agents. (Lecture-Discussion 3 hours.)

244. Machine Tools (1)

Corequisite: ET 244L. Operations and use of the conventional and non-conventional machine tools. Not open to students with previ-

ous 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 to students with previous machine tools experience. (Laboratory 3 hours.) Letter grade only (A-F).

250. Circuit Analysis I (2)

Prerequisite: PHYS 100B. 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. 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 120, ET 250, 250L. 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 120, ET 250, 250L. Corequisite: ET 252. Laboratory exercises will be conducted on AC circuits using proto boards and AC power supplies, function generators, oscilloscopes, and frequency counters. (Laboratory 3 hours.) Letter grade only (A-F).

253. General Electricity (2)

Prerequisite: PHYS 100B. Corequisite: ET 253L. An overview of electrical/electronics principles and applications including instrumentation, power distribution, and digital electronics. Not open to ET students in the Electronics Option and the Computer Option. (Lecture - discussion, exercise 2 units.) Letter grade only (A-F).

253L. General Electricity Laboratory (2)

Prerequisite: PHYS 100B. Corequisite: ET 253. Laboratory exercises in basic electrical/electronics circuits and applications. Not open to ET students in the Electronics Option and the Computer Option. (Laboratory 3 hours.) Letter grade only (A-F).

255. Introduction To Digital Electronics (2)

Prerequisites: ET 250, 250L. Corequisite: ET 255L. Combinational logic utilizing Boolean algebra and the binary numbering system. This beginning course 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, 250L. 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 (3)

Prerequisites: ET 252, 252L. Corequisite: ET 260L. Analysis and design of solid-state electronic circuits using diodes, bipolar, unijunction and field-effect devices. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

260L. Solid State Electronics I Laboratory (1)

Prerequisites: ET 252, 252L. 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).

Engineering Technology Courses (ET)

264. Industrial Tooling (1)

Prerequisites: ET 170, 205L; 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)

Prerequisites: ET 170, 205L; 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, 205L; 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)

286L. Introduction to Object-Oriented Programming Laboratory (1)

Prerequisites: ET 205, 205L; corequisite: ET 286. Introduction to an object-oriented programming language (C++). Problem analysis and software development methodology. Emphasis on applications to technology. (Laboratory 3 hours.)

Upper Division

301. Engineering Materials (2)

Prerequisites: ET 204, CHEM 111A; corequisite: ET 301L. Study of physical and mechanical properties and applications of engineering materials. (Lecture-Discussion 2 hours.)

301L. Engineering Materials Laboratory (1)

Prerequisites: ET 204, CHEM 111A; corequisite: ET 301. Laboratory investigation and experiments in the application of engineering materials. Field trips. (Lab 3 hrs.)

302. Industrial Electricity (2)

Prerequisite: PHYS 100B; corequisite: ET 302L. An overview of electrical principles and applications in electrical manufacturing industries including instrumentation and power distribution. (Lecture 2 hours.) May not be used for credit for the ECET program.

302L. Industrial Electricity Laboratory (1)

Prerequisite: PHYS 100B; corequisite: ET 302. Overview of laboratory techniques in electrical engineering technology and applications in the industry. (Laboratory 3 hours.) May not be used for credit for the ECET program.

303. Fundamentals of Environmental Technology (3)

Prerequisites: CHEM 111A, MATH 120, PHYS 100A. Fundamentals of the techniques and unit operations for pollution control of air, land, surface water and groundwater pollution, as well as design of conveyances for water and wastewater, with an emphasis on their application in an industrial setting. Includes fundamentals of hydrology and fluid flow in environmental engineering technology. (Lecture-Discussion 3 hours.)

304. Applied Mechanics Strength of Materials (3)

Prerequisite: ET 204. Analysis of strength and rigidity of structural members in resisting applied forces, stress, strain, shear, moment, deflections, combined stresses, connections, and moment distribution. (Lecture-Discussion 3 hours.)

307. Industrial Safety (2)

Prerequisites: 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. (Lecture-Discussion 2 hours)

309. Industrial Communications and Leadership (3)

Prerequisites: ET 205, 205L, English Composition. Principles, theories and concepts of industrial communications and management for engineering technology. Emphasis is placed on the primary management functions of planning, organizing, motivating, leading, controlling and staffing in a technical environment. Introduction to basic decision support models. Students also learn written and oral transmission and interpretation of technical information; communi-

cation 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, 202L, Junior standing. Quality engineering technology principles and practices in industry, including management concepts, inspection practices, costs of quality and testing. (Lecture-Discussion 3 hours.)

312. Statistical Quality Control (3)

Prerequisite: ET 311. 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)

Corequisite: 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)

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)

319. Environmental Regulations and Compliance (3)

Analysis of federal and local administration of environmental laws, including the National Environmental Policy Act of 1969 and litigation of that act in the courts. Special attention paid to California and comparison of the environmental regulation policies of California. Case studies of legislation and political conflict in the environmental issues, and regulatory compliance. (Lecture-Discussion 3 hours.)

320. Software Quality Assurance (2)

Prerequisite: ET 205, 205L. Theory and practices of software Quality Assurance. Course emphasizes Government specifications such as DOD-STD-2167 and DOD-STD-2168. (Lecture-Discussion 2 hours.) Letter grade only (A-F).

329. Environmental Study of Groundwater and Soils (2)

Corequisite: ET 329L. Detection, analysis and control of groundwater/soil contamination involving the regulatory hierarchy, distribution network and subsurface formations. Basic tools and procedures utilized in compliance operations. (Lecture-Discussion 2 hours.)

329L. Environmental Study of Groundwater and Soils Laboratory (1)

Corequisite: ET 329. Laboratory exercises in the techniques of detection, analysis and control of groundwater/soil contamination. Rules of compliance set by regulatory hierarchy, distribution network and subsurface formations. (Laboratory 3 hours.)

331. Environmental Auditing and Reporting (3)

Concepts, methods and techniques of performing environmental operational audits. Duties and responsibilities of a regulatory auditor within the State and Federal hierarchy. State and Federal compliance forms and procedures in industrial manufacturing processes as required by regulatory agencies. Written and oral transmission and interpretation of compliance information and related resource networks. (Lecture-Discussion 3 hours.)

333. Solid Waste Technology (2)

Corequisite: ET 333L. Survey of regulated hazardous and non-hazardous solid waste generated by common industrial processes. Topics include waste generation, storage, collection, transfer, transport, processing and recovery. Consideration of system performance, legislation, regulations and environmental impact. (Lecture-Discussion 2 hours.)

333L. Solid Waste Technology Laboratory (1)

Corequisite: ET 333. Techniques of identification, measurement and assessment of solid waste. Focus on regulated hazardous solid waste from common industrial processes. Topics include waste generation, storage, collection, transfer, transport, processing and recovery. Consideration of system performance, legislation, regulations and environmental impact. (Laboratory 3 hours.)

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; metal casting processes; welding and soldering; corrosion, powder 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; metallography and electronic manufacturing processes. (Laboratory 3 hours.) Letter grade only (A-F).

341. Solid State Electronics II (3)

Prerequisites: ENGR 203, 203L, ET 260, 260L, 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. (Lec-Discussion 3 hrs) Letter grade only (A-F).

341L. Solid State Electronics II Laboratory (1)

Prerequisites: ENGR 203, 203L, ET 260, 260L, 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, 252L; 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 252L; 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, 260L; 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, 260L; 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 170, 304. 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)

Prerequisites: PHYS 100A, ET 302, 302L; corequisite: ET 365L. Fundamentals and application of hydraulic, pneumatic and vacuum power as used in current manufacturing plants. (Lecture-Discussion 2 hours.)

365L. Fluid Power and Control Laboratory (1)

Prerequisites: PHYS 100A, ET 302, 302L; 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.)

386. Introduction to Microprocessors (2)

Prerequisites: ET 286, 286L; corequisite: ET 386L. Theory and concepts of programming, hardware configuration, and functional capabilities of microcomputer systems including peripheral devices. (Lecture-Problems 2 hours.)

386L. Introduction to Microprocessors Laboratory (1)

Prerequisites: ET 286, ET 286L; 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.)

387. Robot Programming and Mechatronics (2)

Prerequisites: ET 205, ET 205L; 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.)

387L. Robot Programming and Mechatronics Laboratory (1)

Prerequisites: ET 205, ET 205L; 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.

388. Technical Applications Using Programming Languages (2)

Prerequisites: ET 286, 286L; corequisite: ET 388L. Techniques for design and development of industrial programs that includes composite program design, module coupling, module strength, program testing, top-down structured programming concepts and tools, object oriented programming, and memory management. These concepts are investigated and examined for use in solving complex problems in engineering technology. (Lecture-problems 2 hours.)

388L. Technical Applications Using Programming Languages Laboratory (1)

Prerequisites: ET 286, 286L; corequisite: ET 388. Laboratory experience in techniques for designing and development of industrial programs such as composite program design, module coupling, module strength, program testing, top-down structured programming concepts and tools, object oriented programming, and memory management. These concepts are investigated and examined for use in solving complex problems in engineering technology. (Lab 3 hours.)

390. Applied Computer-Aided Design and Manufacturing (2)

Prerequisites: ET 170, 205, 205L; 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 170, 205, 205L; 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).

400. Industrial Wastewater Treatment (2)

Prerequisites: CHEM 111A, BIOL 211A, ET 303, 319; corequisite: ET 400L. Fundamentals of the characterization, minimization, treatment selection and design of industrial wastewater treatment systems. (Lecture-Discussion 2 hours.)

400L. Industrial Wastewater Treatment Laboratory (1)

Prerequisites: CHEM 111A, BIOL 211A, ET 303, 319; corequisite: ET 400. Laboratory exploration of fundamentals of the characterization, selection and operation of industrial wastewater treatment systems. (Laboratory 3 hours.)

407. Environmental Systems Safety and Emergency Management (3)

Prerequisites: ET 303, 311, 319. Emergency management and contingency planning in accordance with U.S. environmental regulations and international standards. Emphasis on training, preparedness, response and recovery. Concepts, methods and techniques of performing environmental operational systems audits in accordance with the International Standards Organization (ISO). (Lecture-Discussion 3 hours.)

Engineering Technology Courses (ET)

409. Senior Problems in ET (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.

- B. Electronics Technology
- C. Manufacturing Technology
- D. Quality Assurance
- E. Computer Technology

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.)

418. Production Methods and Process Improvement (3)

Prerequisite: ET 410. 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. Advanced statistical analysis applied to quality functions. Comparative and single factor experiments. Factorial designs and multiple regression. (Lecture-Discussion 3 hours.)

420. Reliability and Maintainability (3)

Prerequisites: ET 419. Principles and Practices of reliability; reliability analysis and design; testing for reliability. Maintainability concepts. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

435. Engineering Materials and Processes II (3)

Prerequisites: ET 335, 335L. 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. 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, 360L. 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; 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.)

442L. Computer Circuits Laboratory (1)

Prerequisites: ET 255, ET 255L; 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.)

444. Telecommunications (3)

Prerequisites: ET 360, 360L. 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 (1)

Prerequisites: ET 350, 350L; corequisite: ET 445L. Design, processing and applications of monolithic and hybrid microcircuits for analog and digital systems. (Lecture 1 hour.) Letter grade only (A-F).

445L. Microelectronics Laboratory (1)

Prerequisites: ET 350, 350L; 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, 341L; 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. (Lec-Discussion 2 hours.)

447L. Industrial Applications of Electronic Circuits Laboratory (1)

Prerequisites: ET 341, 341L; 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.)

449. Environmental Air Quality (2)

Corequisite: ET 449L. Planning and evaluation of systems for management of air quality. Consideration of system performance, legislation regulations, environmental impacts and socioeconomic factors. Selected case studies. (Lecture-Discussion 2 hrs.)

449L. Environmental Air Quality Laboratory (1)

Corequisite: ET 449. Techniques of measurement and assessment of air quality. Focus on measurement of regulated air quality health hazards. (Laboratory 3 hours.)

460. Electronics Project Design and Development (2)

Prerequisites: ET 341, 341L and senior standing; Co-requisite: ET 460L. This capstone course is open to Electronics Technology majors only. It involves individual or small group projects in applied electronics, with emphasis on laboratory practice or hardware/software solution to practical problems. This course will emulate the design and development process common to electronic and electrical products. Written reports and oral presentations are required. Letter grade only (A-F). (Lecture-Discussion 2 hours.)

460L. Electronics Project Design and Development Laboratory (1)

Prerequisites: 341, 341L and senior standing; Co-requisite: ET 460. The course involves laboratory exercises in electronics project design and development. Topics covered include: product planning, implementation planning, proposal and approvals, prototyping, system integration, packaging, overall testing, and reporting. The course concludes with a formal demonstration, an oral presentation on the finished product and a written report on the final design. Letter grade only (A-F). (Laboratory 3 hours.)

461. Management of Manufacturing Operations (3)

Prerequisite: ET 418. 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.)

476. Environmental Impact (3)

Prerequisite: BIOL 306. Required components of environmental impact reports and assessments and the processes involved in their preparation. Special emphasis is placed on the biological portions of EIRs and impact on flora and fauna. (Lecture-Discussion 3 hours.)

485. Environmental Assessment (3)

Definition and study of problems related to specific issues of environmental impact, mitigating solutions, costs, benefits and consequences. (Lecture-Discussion 3 hours.)

486. Data Structures (2)

Prerequisites: ET 388, 388L; corequisite: ET 486L. Data structures and applications. Choice and implementation of appropriate data structures for applications. Treatment of arrays, lists, stacks, queues, lined lists, trees, and assorted algorithms. Introduction to search and sorting. File organization techniques. (Lecture-Problems 2 hours.) Letter grade only (A-F).

486L. Data Structures Laboratory (1)

Prerequisites: ET 388, 388L; corequisite: ET 486. Laboratory exercises in data structures and applications. A recursive programming language will be used. (Laboratory 3 hours.) Letter grade only (A-F).

487. Client/Server Computing Technology (2)

Prerequisites: ET 286, 286L; corequisite: ET 487L. Introduction to client/server computing. Hardware and software technology. Protocols, networks, relational database technology. Example applications using client/server computing. Tools and development environments. Groupware, middleware. A design project and class presentation required. (Lecture-Discussion 2 hours.)

487L. Client/Server Computing Technology Laboratory (1)

Prerequisites: ET 286, 286L; corequisite: ET 487. Laboratory and programming exercises developing client/server applications. Hardware and software technology. Protocols, networks, relational database technology. Applications using software/hardware tools and development environment. (Laboratory 3 hours.)

488. Microcomputer Systems (2)

Prerequisites: ET 386, 386L; 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.)

488L. Microcomputer Systems Laboratory (1)

Prerequisites: ET 386, 386L; 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.)

489. Computer Interfacing (2)

Prerequisites: ET 442, 442L, 488, 488L; 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, 442L, 488, 488L; 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. Microcomputer Development Systems (2)

Prerequisites: ET 489, 489L; corequisite: ET 491L. Microcomputer development systems and applications. Software and hardware development process, modular program development, complex data structures, linkage with high level language, and in-circuit emulator operation. Introduction to development cycle with in-circuit emulator. (Lec-Problems 2 hrs.) Letter grade only (A-F).

491L. Microcomputer Development Systems Laboratory (1)

Prerequisite: ET 489, 489L; corequisite: ET 491. Laboratory exercises in microcomputer development systems and applications. In-circuit emulator in software and hardware development process. (Laboratory 3 hours.) Letter grade only (A-F).

492. Computer Controlled Industrial Systems (2)

Prerequisites: ET 286, 286L; 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, 286L; 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 486, 486L, 491, 491L; corequisite: ET 494L. Systems development concepts, principles, and practices to a comprehensive systems development project. Hands-on approach is used to analyze, design and document a realistic system. Actual use of project management, interviewing, forms analysis, structured methods, behavioral dynamics, walk-throughs, report writing, and presentations. (Lecture-Discussion 2 hours.) Letter grade only (A-F).

494L. Applied Systems Development Project Laboratory (1)

Prerequisites: ET 486, 486L, 491, 491L; corequisite: ET 494. Laboratory exercises on applied system development. Emphasis will be on systems development concepts, principles, and practices to a comprehensive systems development project. (Laboratory 3 hours.) Letter grade only (A-F).

496. Advanced Quality Systems and Analysis (3)

Prerequisites: ET 419, 420. Quality systems analysis and applications. Course includes in-depth case studies in strategic quality planning, organization and management, integrated product design, application of quality diagnostic techniques and advanced statistical problem-solving methods, product reliability and quality assurance. Students perform a comprehensive systems analysis team project covering and industry application using the continuous process improvement (CPI) methodologies. (Lec-problems 3 hours.)

497. Computer Network Technology (2)

Prerequisites: ET 487, 487L; 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. Load balancing, use of simulation tools in designing networks. (Lecture-Discussion 2 hours.)

497L. Computer Network Technology Laboratory (1)

Prerequisites: ET 487, 487L; corequisite: ET 497. Laboratory exercises using hardware and software technology as it relates to computer networking. Internetworking laboratory. Ethernet, ATM. Bridges, routers, gateways and intelligent hubs. Load balancing. Use of simulation tools. (Laboratory 3 hours.)

498. Manufacturing Engineering Technology Capstone Project (3)

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.)

Construction Engineering Management Courses (CEM)

101. Introduction to Construction Engineering Management (1)

Survey of the professional activities and environments of Construction Engineering Management. Course covers the role of the Construction Engineering Manager in construction industry. The study of construction and the growth future of the Construction Engineering Management. Credit/No Credit grading only. (Lecture-Discussion 1 hour.)

121. Construction Drawing I (2) F

Use of scale, drawing instruments, lettering and drawing media. Interpretation of plan, elevation, section, perspective and isometric drawings. Blueprint symbols, abbreviations, terminology. Basic design parameters as required by the building code. Familiarity with reference materials and texts, including Sweets Catalogues, laboratory including a simple building design set of drawings. (Lecture 1 hr, laboratory 3 hrs.) Letter grade only (A-F).

Construction Engineering Management Courses (CEM)

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 and by products; process costing. (Lecture-Problems 3 hours.) Letter grade only (A-F).

202. Probability and Statistics for Construction Engineering Management (3)

Prerequisite: High School Algebra. Statistics and probability theories, sampling, correlation, regression applied to Construction Engineering Management. Laboratory. (Simulation using statistical packages.) (Lecture-Discussion 3 hours) Letter grade only (A-F).

204. Applied Mechanics–Statics (3)

Prerequisite: MATH 120 and PHYS 100A Force systems acting on a structures, moments, equilibrium, centroids, trusses, beams, cables, frames, machines, friction, section properties, masses, both U.S. and S.I. units of measurements. (Lecture 2 hours, Activity 2 hours.)

205. Computer Systems and Programming (1)

Corequisite: CEM 205L. An overview of computer systems, computer hardware, and software development. Hardware topics include updated coverage of the central processing unit and memory, input/output devices, storage mechanism, and communication technology. Software topics include programming and languages, operating systems, and systems analysis and design. A programming language will be used for lab activities. (Lecture – discussion, exercise, 1 unit) Letter grade only (A-F). Same as ET .

205L. Computer Systems and Programming Lab (1)

Corequisite: CEM 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 ET 205L

220. Fundamentals of Construction (2)

Prerequisite: CEM 121. An overview of construction trends. Effects of scientific and engineering advancements on the building team acting as consultants to the architect. Field trips. (Lecture-Discussion 1 hour, Activity 2 hours.) Letter grade only (A-F).

225. Construction Surveying (1)

Prerequisites: CEM 220 and High School algebra and trigonometry. Corequisite: 225L. Fundamentals of surveying methods as applied to construction layout. Use of level and transit for location and control of structures, vertical and horizontal control, area determination, care and use of instruments. (Lecture-Problems 1 hour.) Letter grade only (A-F).

225L. Construction Surveying Laboratory (1)

Prerequisite: CEM 220. Corequisite: CEM 225. Laboratory exercises on land measurement, differential and profile leveling, construction layout and plotting profiles using tape, leveling and transit instruments. (Laboratory 3 hours.) Letter grade only (A-F).

230. Fundamentals of Estimating and Drafting (2)

Prerequisite: CEM 220. Interpretation of drawings and specifications for use in estimating, planning, and communication. Plan reading, visualization, sketching, and quantity take-off techniques. (1 hour lecture, 2 hours activities) Letter grade only (A-F).

235. Concrete Construction (1)

Prerequisites: CEM 220, CHEM 111A; Corequisite: CEM 235L. Concrete terminology, tools, practices and building codes. Includes concrete form construction, erection and stripping, mixing, placing, finishing and curing. Field trips. (Lecture-Discussion 1 hour.) Letter grade only (A-F).

235L. Concrete Construction Laboratory (1)

Prerequisite: CEM 220, CHEM 111A; Corequisite: CEM 235. Laboratory exercises in support of CEM 235, 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).

Upper Division

300. Computer Applications for Construction Engineering Management (1)

Prerequisites: CEM 205, 205L. Corequisite: CEM 300L. Survey of computer, hardware, software, languages and applications in construction management. (Lecture-Discussion 1 hour.) Letter grade only (A-F).

300L. Computer Applications for Construction Engineering Management Laboratory (1)

Prerequisites: CEM 205, 205L. Corequisite: CEM 300. Laboratory exercises in computer systems to control cost, scheduling, manpower, and materials in construction operations in the building industry, development of construction management games. (Laboratory 3 hours.) Letter grade only (A-F).

304. Applied Mechanics Strength of Materials (3)

Prerequisite: CEM 204. Analysis of strength and rigidity of structural members in resisting applied forces, stress, strain, shear, moment, deflections, combined stresses, connections, and moment distribution. (Lecture-Problems 3 hours.) Letter grade only (A-F).

309. The Management of Contemporary Organizations (3)

Prerequisite: MGMT 300, ENGR 310. An overview of managerial and organizational theory and practice, including a discussion of the contingencies that influence an organization's effectiveness and efficiency. Focus of the course is on the decision-making and problem-solving processes that affect managerial performance in planning, implementing, and controlling the work of contemporary organizations (Lecture - Discussion 3 hours.) Letter grade only (A-F).

321. Operations Management (3)

Prerequisites: CEM 309. An introduction to the basic concepts and methods used to analyze and improve performance of operations in construction and service organizations. Decisions and problems presented are related to operations in the construction industry. A study of the duties and responsibilities of construction on-site and office personnel. Emphasis is placed on the method and techniques used to ensure an efficient quality management and on-schedule operations. (2 hours lecture-discussion.) Letter grade only (A-F).

322. Mechanical Equipment for Buildings (2)

Prerequisite: CEM 230, PHYS 100B. Principles and current practices in water supply, waste disposal, heating, ventilating, air conditioning and fire protection. (Lecture 1 hour, Activity 2 hours.) Letter grade only (A-F).

325. Construction Practices and Methods (3)

Prerequisites: CEM 230. Properties and applications of materials for the construction industry. Current practices in fabrication, and erection methods used in industrial, commercial and heavy construction. Field trips. (Lecture - Problems 3 hours.) Letter grade only (A-F).

328. Construction Safety (2)

Prerequisites: CEM 230. Terminology, safety functions, accident costs, workman's compensation and liability laws, O.S.H.A., and many other governmental and non-governmental codes, regulations and field safety methods pertinent to the construction industry. Field trips. (Lecture 1 hour, Activity 2 hours.) Letter grade only (A-F).

330. Advanced Estimating and Bidding (3)

Prerequisites: CEM 201, 300, 300L, 325. A study of the concepts and practices involved in the total estimate bidding process in construction, from initial project selection to submission of final bids. Covers considerations in project selection, variables affecting labor productivity, sub-bid analysis, contingency and risk analysis, pricing concepts, bidding models, and an introduction

to computer applications. A complete project estimate and bid is prepared by each student. (Lecture 2 hours. Activity 2 hours.) Letter grade only (A-F).

335. Soil Mechanics Technology (2)

Prerequisite: ET 304. 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: ET 304. Corequisite: CEM 335. Laboratory investigations and experiments in the phenomena of soil mechanics. Field trips. (Laboratory 3 hours) Letter grade only (A-F).

374. Plant Planning and Layout (3)

Prerequisite: CEM 121. Planning practices, procedures and requirements for laying out industrial facilities. (Lecture - Discussion 2 hours. Activity 2 hours.) Letter grade only (A-F).

404. Structural Concrete and Masonry Design (3)

Prerequisite: CEM 304. Analysis and design of structural concrete and masonry building in compliance with the Uniform Building Code. (Lecture-Problems 3 hours.) Letter grade only (A-F).

409. Direct Studies in Construction Engineering Management (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.

410. Cost Engineering and Analysis (3)

Prerequisites: ECON 300. 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).

421. Construction Planning and Scheduling (3)

Prerequisites: CEM 330. Planning, scheduling and control by graphic charts and PERT/CPM networks. Resource allocation and leveling. Manual and computer methods. Field trips. (Lec-Discussion 3 hrs) Letter grade only (A-F).

422. Electrical Equipment for Buildings (2)

Prerequisite: PHYS 100B. 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).

423. Site Analysis (3)

Prerequisites: CEM 225, 225L. Detailed analysis and investigation of construction sites. Economics and feasibility of land development. Field trips. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

426. Business and Construction Law (3)

Prerequisite: CEM 328. Contractors license laws; mechanics lien laws; real estate and subdivision law; public works projects bid and bid requirements, O.S.H.A.; administration enabling legislation and penalties; citations and appeals; current litigation and legal trends in affirmative action and minority subcontractor quotas, design professional's liability. Letter grade only (A-F).

428. Construction Proposals and Specifications (3)

Prerequisites: CEM 426. Principles and methods for developing the technical knowledge to structure a construction proposal. Analysis of letters of transmittal, inquiry and bidding specifications. (Lecture-Activities 3 hours.) Letter grade only (A-F).

430. Construction Equipment (3)

Prerequisites: CEM 330, 335, 335L, 410, 421. Characteristics, capabilities, limitations, economics, and utilization of general building and heavy construction equipment. (Lecture 2 hours - Activity 2 hours) Letter grade only (A-F).

431. Construction Cost Control (3)

Prerequisites: CEM 430, and Senior Standing. Basic applications of construction cost control systems and the use of cost information and associated reports. (Lecture - Discussion 3 hours.) Letter grade only (A-F).

432. Facility Administration (3)

Prerequisite: CEM 374. 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)

Prerequisite: 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. 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).

435. Construction Materials (2)

Prerequisites: CEM 235, 235L, 335, 335L. Corequisite: CEM 435L. A comprehensive study of the principle materials such as masonry, metals, woods, thermal materials, finishes, composite materials, insulation that are used in the construction industry. (Lecture-Discussion 2 hours.) Letter grade only (A-F).

435L. Construction Materials Laboratory (1)

Prerequisites: CEM 235L, 335L. Corequisite: CEM 435. Laboratory and field tests are performed to all construction materials. (3 hours laboratory.) Letter grade only (A-F).

436. Facility Operations Management (3)

Prerequisite: CEM 374. 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; furniture standards; security systems and planned maintenance. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

438. Structural Steel and Wood Design (3)

Prerequisite: CEM 304. Analysis and design of structural steel and wood buildings in compliance with the Uniform Building Code. (Lecture-Problem 3 hours.) Letter grade only (A-F).

490. Construction Project Management (3)

Prerequisites: CEM 322, 422, 426, 428, 431. Principles of project management are applied to a case study of an actual construction project. Topics include site facilities planning, procurement, shop drawings, scheduling coordinating subcontracts and contract administration. Relationships with owners, designers and other officials are analyzed. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

FAMILY AND CONSUMER SCIENCES

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The faculty of the Department of Family and Consumer Sciences seeks to prepare men and women to enter professions concerned with enhancing the quality of individual and family life in the context of the near environment. The following objectives have been articulated:

To prepare men and women to the highest standards for professions in Family and Consumer Sciences and related fields requiring a bachelor's or master's degree.

To prepare students for successful careers within the diversity of human relationships while enhancing their own physical, psychological, and emotional development through their lifespan.

To provide continuing education and post-master's study in professional fields of Family and Consumer Sciences.

To provide information to a diverse student population and the community about current services and career opportunities as well as the potential for emerging professional careers in a changing society.

To employ the most effective methodology and useful resources on the university campus and in the surrounding communities. Provide the best quality program within the structure of the CSU system.

To continue creative and scholarly research for the future growth of the profession.

To apply knowledge gained from research and study to serve the needs identified in the university and surrounding community.

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 accredited by the American Dietetic Association (ADA) (Commission on Accreditation for Dietetics Education, American Dietetic Association, 216 West Jackson Boulevard, Suite 800, Chicago, IL 60606-6995, phone: 312-899-4872). The Preschool and Toddler Study Laboratories are accredited by the National Association for the Education of Young Children. The Child Development and Family Studies Program is approved by the National Council on Family Relations to offer a program leading to Provisional Family Life Education Certification.

The Department of Family and Consumer Sciences offers programs of study leading to the Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science degrees.

Curricula are designed to provide a liberal education through study in the social and natural sciences, the humanities and the arts, and to offer specialized instruction based on these disciplines which will lead to professional careers in Family and Consumer Sciences and related fields.

Programs of study cover various aspects of the field: Apparel Design and Merchandising; Child Development and Family Studies; Consumer Affairs; Education; Food Science;

Gerontology; Hospitality Foodservice and Hotel Management; Nutrition and Dietetics.

Degrees and certificates available in the Family and Consumer Sciences Department include:

- Bachelor of Arts in Family and Consumer Sciences in five option areas (see below)
- Bachelor of Science in Dietetics and Food Administration in three option areas (see below)
- Master of Arts in Family and Consumer Sciences
- Master of Science in Nutritional Science
- Master of Science in Gerontology (specific requirements are listed under Gerontology)
- Dietetic Internship
- Child Development Certificate
- Foodservice Systems Administration Certificate
- Gerontology Certificate (Specific requirements are listed under Gerontology)
- Home Economics Single Subject Teaching Credential (a 5th year of study is required.)

Information about Family and Consumer Sciences sponsored degrees and certificates are organized by degrees and options.

Bachelor of Arts in Family and Consumer Sciences

The Department of Family and Consumer Sciences offers students a Bachelor of Arts degree in five option areas of study:

- Child Development and Family Studies
- Communication
- Consumer Affairs
- Fashion Merchandising
- Textiles and Clothing

Specific degree and certificate information as well as option requirements are as follows:

Requirements for all majors include a minimum of 120 units for the Bachelor of Arts degree. In addition to general education requirements (51 units), a minimum of 40 units in Family and Consumer Sciences must be completed, 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 first accepted by the University.

Child Development and Family Studies

The field of Child Development and Family Studies (CDFS) strives to improve the lives of children and families. As an integrative and interdisciplinary specialization, Child Development and Family Studies incorporates information from a variety of disciplines. Our primary focus is on utilizing the preventive approach to assist individuals and families. Career options for professionals in the field of CDFS are wide-ranging. Many of our graduates pursue the following opportunities: family life educator; child life specialist; teen pregnancy counselor; domestic violence counselor; toy research and development professional; child development educator/administrator – infant and toddler care, preschool teaching, and school age programs; child development consultant; community resource and referral professional; parent educator; and corporate human services consultant.

Option in Child Development and Family Studies (code FCS_BA01) (120 units)

BIOL 205 or 309I; PSY 100; SOC 100 or ANTH 120; FCS 111, 132, 211, 214 and 414 or 215 and 415, 299, 311 or 314, 312I, 321, 411, 413, 492A or 492B or 3 units of 497 or second semester of 414 or 415, 499 plus 9 units of advisor approved electives. The student also must select with a Child Development and Family Studies advisor's approval 15 units from FCS 319, 387, 402, 409, 410, 412, 416A, 416B, 417, 418, 419 or FCS 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 Child Development and Family Studies Area Coordinator.

Child Development Certificate (code FCS_CT01)

Child Development and Family Studies in the Family and Consumer Sciences Department provides an academic and professional background for working with children and families. It offers an interdisciplinary foundation in several areas that influence the life and education of children and families. Fieldwork opportunities where students have direct experiences with children and families in the community are provided.

The Certificate in Child Development must be earned in conjunction with the baccalaureate degree, master's degree or teaching credential in Family and Consumer Sciences or related fields. Courses offered for the certificate may be the same ones used to satisfy, where applicable, major, minor, credential, general education or interdisciplinary requirements.

Requirements

1. Bachelor's Degree in Family and Consumer Sciences or related field;

2. 36 units distributed as follows:

Lower division (12 units): FCS 111, 132, 211, 214.

Upper Division (24 units): FCS 311 or 314, 312I, 411, 413, 414 or 415, 416A, 418.

Awarding of the Certificate in Child Development will be recommended by the Certificate Program Director upon successful completion of certificate requirements.

Interested students should apply to the Child Development Certificate Program Director, Dr. Richard Tuveson, Family and Consumer Sciences (562) 985-4487 or tuveson@csulb.edu.

Child Development and Family Studies Courses

- 111. The Preschool Child
- 211. Guiding Young Children
- 213. Family, Community, and Young Children
- 214. Environments for Young Children
- 215. Environments for Infants and Toddlers
- 219. Stress Coping and Resiliency for the Professional Educator
- 290. Directed Studies
- 311. Prenatal Development and Infancy
- 312I. Family and Personal Development
- 314. The Older Child
- 319. Family Stress and Coping

- 358. Fathers and Fathering
- 402./502. Child and Family Law
- 409. Language, Learning and the Developing Child: A Cross-Cultural Perspective
- 410. International Families: Families in Cross-Cultural Perspectives
- *411. Individual Child Study and Guidance
- *412. Family Interaction
- *413. Child and Family in the Community
- 414. Fieldwork with Preschool Children
- 415. Fieldwork with Infants/ Toddlers
- 416A. Introduction to Administration and Supervision of Child Development Programs
- 416B. Applications of Administration and Supervision of Child Development Programs
- 417. Premarital Intervention
- *418. Parent Education
- *419. Family Life Education
- 492A. Internship in Child Development and Family Studies
- 492B. Internship in Certified Family Life Educator

Communication

A Bachelor of Arts degree in Family and Consumer Sciences: Communication (to be changed to Education) prepares students for careers in teaching youth and adults in various educational settings, as well as for positions in business, industry and government. Courses in the program focus on enhancing the quality of life for diverse individuals and families through assignments and activities that promote solutions to problems encountered in daily living.

Students who earn a Home Economics Single Subject Credential will be prepared to teach in middle, junior, and senior high schools, and in adult or career and technical education programs and community colleges. Career opportunities also include positions in cooperative extension, government, and community service agencies; and education program specialist positions in business, industry, and government.

Students should consult with the Family and Consumer Sciences Communication (to be changed to Education) Credential Advisor as early as possible in order to design an efficient undergraduate program of study. Students with majors in other FCS option areas who are interested in becoming a secondary teacher should also consult the FCS Single Subject Credential Advisor regarding meeting subject matter competency for the single subject credential. Students may also work on a teaching credential while completing a Master of Arts degree in Family and Consumer Sciences.

Option in Communication (code FCS_BA02) (120 units)

CHEM 100; ECON 100 and 101 or 300; ENGL 100, 101 or 310 or 317; PSY 100; SOC 100 or ANTH 120; COMM 110; HSC 411B; EDSS 300H; FCS 111, 132, 154, 233, 235, 251, 275, 296, 299, 312I, 314, 321, 322, 326, 353, 387, 488, 492D, 499, plus 12 units of one of the following concentrations: Child Development and Education Occupations FCS 214, 414, 416A, 416B; Fashion Design, Manufacturing and Merchandising FCS 155, 351, 355, 455; Foodservice and Hospitality FCS 270, 375, 377, 474. Candidates for the Home Economics Single Subject Credential must take professional education requirements.

Communication Courses

- 296. Applied Arts in Family and Consumer Sciences
- 299. Themes and Issues in Family and Consumer Sciences
- 387. Consumer Technology
- *486. Teaching-Learning Strategies in Family and Consumer Sciences
- *488. Developing Occupational Programs in Family and Consumer Sciences
- *490. Special Topics
- 492D. Internship In Family and Consumer Sciences Education
- 497. Directed Studies
- 499. Perspectives in Family and Consumer Sciences
- EDSS 300H. Introduction to Teaching Home Economics
- EDSS 450H. Curriculum and Methods in Teaching Home Economics

Consumer Affairs

Consumer Affairs provides students with a foundation in Consumer Advocacy, Personal Financial Management, and Housing Services. The program focuses on how businesses, government agencies, and community organizations interact with families and consumers. Career opportunities could include: consumer credit counselor, consumer protection agent, consumer educator, financial counselor, marketing consultant, sales representative, customer service representative, paralegal, property manager, housing counselor, homeless coordinator.

Option in Consumer Affairs (code FCS_BA03) (120 units)

ACCT 201; ECON 100 and 101 or 300; ENGL 101 or 317 or 417 or 418 or 419; FCS 223, 228, 299, 312I, 321, 322, 326, 387, 420, 422, 425, 426, 429, 486, 492C or three units of 497, 499; MKTG 300, 490; PSY 100; SOC 100; C/LA 250 or SOC 250, plus 9 units of advisor approved electives. 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 Area Coordinator.

Minor in Consumer Affairs (code FCS_UM01)

Eighteen units as approved by a Consumer Affairs faculty advisor. Nine units of required courses include: FCS 223, 322, 326; and 9 upper division units selected from FCS 420, 422, 425, 426, and 429 are required for the minor.

The Minor in Consumer Affairs is available to any non-Consumer Affairs major.

Consumer Affairs Courses

- 223. Personal and Family Financial Management
- 228. Housing in Global Perspective
- 309I. The Consumer in the Legal and Economic Environment
- 321. Family and Consumer Resource Management
- 322. Family Housing and the Urban Community
- 326. Consumer Problems
- 420./520. Personal Finance for the Aging
- *422. Housing Policies: Public and Private
- *424. Independent Living for Disabled and Elderly Persons

*425. Personal Financial Planning Analysis

*426. Family Financial Problems

*428. International Housing

429./529. Consumer Protection

492C. Internship in Consumer Affairs

Apparel Design and Merchandising

A B.A. in Family and Consumer Sciences: Textiles and Clothing or Fashion Merchandising enables students to pursue careers in the design, production and merchandising of textile and apparel products and to meet individual and family textile and apparel needs. Career opportunities include: buyer-retailing, manufacturer's representative, product designer-pattern maker, store operations manager, stylist-fashion director, textiles (testing and evaluation) specialist.

Course requirements for a B.A. in Family and Consumer Sciences: Textiles and Clothing and Fashion Merchandising are:

Option in Fashion Merchandising (code FCS_BA04) (120 units)

ACCT 201; CHEM 100 or 111A; ECON 100 and 101 or 300; HIST 131 or AH 115B; IS 240 or FCS 387, MKTG 300; PSY 100; SOC 100 or ANTH 120; FCS 154 or 252, 155, 251, 253, 258, 296 or ART 149, 299, 321, 351, 353, 355, 450, 455, 456, 457, 486, 492E or 497, and 499; plus 9 units of advisor approved electives. Each course on the student's program planner must be completed with a grade of "C" or better. In addition, a course 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 Fashion Merchandising (code FCS_UM02)

Eighteen units including FCS 155, 252, 455, and 457; 6 units selected from FCS 251, 253, 351, 353, 355, 492E as approved by a Fashion Merchandising and Design faculty advisor. It is the student's responsibility to adhere to all prerequisites listed below. It should be noted that several prerequisites fulfill general education requirements.

1. FCS 252 or 154, and 155 are prerequisites for FCS 455.
2. ECON 100 and 101 (fulfills GE Category D2b) or 300 (fulfills GE Category D2b), FCS 353, and senior standing, or consent of instructor are prerequisites for FCS 457.
3. FCS 251 (fulfills GE Category E), 252 or 154, and 155 are prerequisites for FCS 351.
4. ELM passage, FCS 155, ACT 201, and IS 240 or FCS 387, or consent of instructor are prerequisites for FCS 355.
5. FCS 455 and 457 are prerequisites for FCS 492E.

The Minor in Fashion Merchandising is available to any non-Fashion Merchandising major.

Option in Textiles and Clothing (code FCS_BA05) (120 units)

CHEM 100 or 111A; ECON 100 and 101 or 300; HIST 131 or AH 115B; SOC 100 or ANTH 120; FCS 154, 155, 251, 253, 256, 258, 296, 299, 321, 352, 353, 354, 357, 387, 450, 452, 453 or 458, 454, 456, 457, 486, 492M or 497, and 499. 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 (code FCS_UM03)

Eighteen units including FCS 155, 253, 353, 453, and 457; 3 additional units selected from FCS 450 or 492M. It is the student's responsibility to adhere to all prerequisites listed below. It should be noted that several prerequisites fulfill general education requirements.

1. FCS 155 and CHEM 100 or 111A (fulfills GE Category B1b) are prerequisites for FCS 353.
2. FCS 155 and 353 are prerequisites for FCS 453.
3. ECON 100 and 101 (fulfills GE Category D2b) or 300 (fulfills GE Category D2b), FCS 353, and senior standing are prerequisites for FCS 457.
4. ANTH 120 (fulfills GE Category D2a) or SOC 100 (fulfills GE Category D2b) or 142 (fulfills GE Category D2b) are prerequisites for FCS 450 (fulfills GE Category D2b and HD).
5. FCS 251 (fulfills GE Category E), FCS 253, and HIST 131 (fulfills GE Category D2a) or ART 115B (fulfills Category C1) are prerequisites for FCS 456.
6. FCS 453 is a prerequisite for FCS 492M.

The Minor in Textiles is available to any non-Textiles major.

Apparel Design and Merchandising Courses

- 154. Fundamentals of Apparel Production
- 155. Introduction to the Fashion Industry
- 251. Professional and Personal Apparel Selection
- 252. Analysis, Evaluation and Comparison of Ready-to-Wear
- 253. Introductory Textiles
- 256. Intermediate Apparel Production
- 257. Introduction to Apparel Flat Pattern
- 258. Fashion Merchandising and Design Practicum
- 351. Fashion Promotion and Sales
- 352. Computerized Apparel Flat Pattern
- 353. Intermediate Textiles
- 354. Analysis of Apparel Design and Tailoring
- 355. Fashion Merchandising Planning and Control
- 357. Advanced Apparel Flat Pattern
- 450. Cultural Perspectives of Dress
- *452. Apparel Draping
- *453. Quality Control in Fashion Merchandising and Design
- *454. Experimental Apparel Design
- *455. Global Perspectives of Fashion Merchandising
- 456. Historic Perspectives of Fashion
- 457. International Textiles and Apparel
- *458. Fashion Product Development
- 492E. Internship in Fashion Merchandising
- 492M. Internship in Apparel Design

Bachelor of Science in Dietetics and Food Administration

The Department of Family and Consumer Sciences offers students a Bachelor of Science degree in three option areas of study:

- Nutrition and Dietetics
- Food Science
- Hospitality Foodservice and Hotel Management

Specific degree and certificate information as well as option requirements are as follows:

Requirements for all majors include a minimum of 129 units to receive the Bachelor of Science degree. The courses which will provide these units are determined by the option the student chooses. In addition to general education requirements (51 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

Individuals choosing this option will concentrate their studies in the areas of nutritional science, medical nutrition therapy, community nutrition, food production and management of food-service operations, chemistry, physiology, plus a variety of supporting course work in related disciplines. The Nutrition and Dietetics option with appropriate elective selection fulfills the American Dietetic Association (ADA) academic requirements for eligibility to apply for qualifying experiences required to become a Registered Dietitian. Career opportunities include: community nutrition programs, health clubs, private consulting, health and welfare agencies, program administration, health promotion, government agencies, hospitals and clinics, food-service operations, public and private schools, research, and business and industry.

Option in Nutrition and Dietetics (code FCS_BS01) (129 units)

BIOL 207 or 342 and 342L; BIOL 260 or ED P 419 or H SC 403 or IS 310; CHEM 111A, 327, 448, 449; ENGL 100; ENGL 101 or 317; HRM 361 or PSY 381; IS 240; MICR 200; PSY 100; SOC 100; FCS 132, 233, 234, 235, 275, 299, 312I, 321, 331A, 331B, 332, 336, 436, 436L, 438, 461, 486; 3 units of 490 or 492K or 497, 499. Additionally, a minimum of 6 units of electives is selected in consultation with a faculty advisor. Recommended electives include: FCS 375, 377, 433, 439, 466, 492K, 497. If a stronger foundation in Chemistry is desired, CHEM 320A and 320B may be selected instead of CHEM 327. If a stronger foundation in biochemistry is desired, CHEM 441A and 441B may be selected instead of CHEM 448.

Students who wish to take the Nutrition and Dietetics Option as a Pre-Professional degree (e.g., medical) should check with the appropriate programs to verify specific requirements.

The American Dietetic Association (ADA) Didactic Program in Dietetics

The ADA 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 granted accreditation

by the American Dietetic Association Commission on Accreditation for Dietetics Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. It is the responsibility of the student to consult with the ADA DPD Director to verify current ADA requirements to become a Registered Dietitian.

Students who choose to meet ADA academic requirements must select FCS 375 and FCS 377 as electives in their major.

Students must receive a grade of "C" or better in the DPD courses to receive verification of completion of the ADA program. Approval of a student's academic program by the CSULB DPD Director requires that the student complete courses FCS 377, 436L and 438 at CSULB.

Food Science

The Food Science curriculum has an interdisciplinary focus which includes food science, food processing, sensory evaluation, nutrition, chemistry, and microbiology, plus a variety of supporting course work in related disciplines. All courses are designed to develop an understanding of the physical and chemical nature of foods and how it relates to the food industry and consumer safety. The food industry careers awaiting graduates offer diverse opportunities as the world supply expands with technological developments. Career options for professionals in the field of food science include: research and product development, food formulation and processing, consumer safety, sensory evaluation, quality assurance, government organization, and food ingredient sales and marketing.

Option in Food Science (code FCS_BS02) (129 units)

BIOL 207; BIOL 260 or ED P 419 or H SC 403; CHEM 111A, 111B, 327, and 448; COMM 110; ENGL 101 or 317; MATH 119A and 119B; MKTG 300; MICR 200 and 473; PHYS 100A; PSY 100 or SOC 100; FCS 132, 234, 235, 299, 321, 330, 331A, 332, 336, 338, 432, 435, 464, 469, 486, 492F, and 499.

Minor in Food Science (code FCS_UM04)

Significant preparation for employment in the Food Science Industry may be developed through completion of this program of study.

Twenty-one units including FCS 235, 332, 338, 432, 435, 464; 3 units selected from FCS 492F or 3 units of FCS 497 as approved by the Food Science faculty advisor. It is the student's responsibility to adhere to all prerequisites listed below. Some of the prerequisites fulfill General Education requirements.

1. CHEM 111A (fulfills GE Category B1b) or 202 (fulfills GE Category B3) is the prerequisite for FCS 235.
2. CHEM 327 and FCS 235 and MICR 200 are prerequisites for FCS 332.
3. FCS 332 is the prerequisite for FCS 338 and 435.
4. CHEM 327 and FCS 332 are prerequisites for FCS 432.
5. FCS 332 and BIOL 260 or equivalent statistics are prerequisites for FCS 464.

The Minor in Food Science is available to any non-Food Science major.

Hospitality Foodservice and Hotel Management

Hospitality Foodservice and Hotel Management furnishes students with the necessary background and expertise to excel as managers and leaders in the restaurant, foodservice, hotel, and lodging industries. The program of study provides a broad-based foundation in both academic and professional courses and includes hands-on practical experience. Career options include: restaurant manager, hotel manager, catering director, foodservice manager in a college, university, in-flight, healthcare, or corporate setting, manager in a motel or bed and breakfast facility, school foodservice director, manager in senior dining programs, stadiums or amusement parks, or as a food purchaser or broker.

Option in Hospitality Foodservice and Hotel Management (code FCS_BS03) (129 units)

ACCT 201; BIOL 205 or 207; CHEM 100 or 111A or 202; COMM 110; ECON 300 or 100 and 101; EDP 419 or IS 310 or MATH 180 or HSC 403; ENGL 100; FIN 320 or FCS 378; HRM 360 or 361 or PSY 381; IS 240; MKTG 300; PHIL 160; PSY 100 or SOC 100; PSY 130 or PHIL 170 or ENGL 102; REC 141 or 225; FCS 132, 176, 233, 234, 270, 276, 299, 321, 336, 372, 375, 376, 377, 437, 474, 486, 492J and 499. Additionally, a minimum of 9 units of pre-approved electives for professional enhancement is selected in consultation with a faculty advisor. Recommended electives include: ACCT 310; GEOG 352; GERN 400I; IS 301; REC 340I, 427, 462, 468, FCS 223 or 429, 312I or 319, 323 or 429, 331A or 433 or 439, 332, 379, 461, 464, 492J, 497; other as approved by advisor.

FCS 492J requires 800 hours of approved work experience as a prerequisite for this option. Field study hours in FCS 379 can be used toward meeting the 800 hours.

Minor in Hospitality Foodservice and Hotel Management (code FCS_UM05)

Twenty-two units including FCS 233, 270, 379 or 492J, and 15 units selected from FCS 235, 275, 372, 375, 376, 377, 378, 437, and 474 as approved by a Hospitality Foodservice and Hotel Management faculty advisor. It is the student's responsibility to adhere to all prerequisites listed below.

1. FCS 132 (fulfills GE Category E) and FCS 235 are prerequisites for FCS 275.
2. FCS 233 and FCS 275 are prerequisites for FCS 375.
3. FCS 270 is a prerequisite for FCS 372 and 376.
4. FCS 375 is a prerequisite for FCS 377.
5. FCS 275, FCS 375, 800 hours of approved work experience, and senior standing are prerequisites for FCS 492J.
6. FCS 375, FCS 377, and senior standing are prerequisites for FCS 437.
7. FCS 375 or consent of instructor are the prerequisites for FCS 474.

The Minor in Hospitality Foodservice and Hotel Management is available to any non-Hospitality Foodservice and Hotel Management major.

Foodservice Systems Administration Certificate (code FCS_CT02)

The Certificate program in Foodservice Systems Administration is designed to provide those students pursuing the bachelor's degree in Dietetics and Food Administration, Business Administration, and other related fields with additional background in foodservice management, increasing their expertise at the management entry level. The program is appropriate for a variety of applications, including foodservice in restaurants, catering, hospitals, public schools, industrial foodservice, hotels and motels, airlines, and in governmental regulatory agencies.

The Certificate may be earned in conjunction with the bachelor's degree or awarded subsequent to obtaining the degree at CSULB. Courses taken to meet the requirements of the Certificate may be the same ones used to satisfy major, minor or General Education requirements, or the degree requirements of the participating departments.

Requirements

1. A bachelor's degree in dietetics/food administration, business administration, or other related fields;
2. Satisfactory completion of the following courses:
 - A. Nutrition: FCS 132;
 - B. Food Preparation and Service: FCS 235, 275;
 - C. Foodservice Management: FCS 375, 377, 474, 492J;
 - D. Business Administration: ACCT 201, HRM 361, 362, 440, MGMT 300, MKTG 300, IS 240;
 - E. Related Fields: CHEM 202 and 302, ECON 300.
3. Maintain a GPA of 2.5 in the courses of the program and overall;
4. Consultation with and certification of successful completion by the Director of the Program in the Department of Family and Consumer Sciences.

Courses taken under the Credit/No Credit grading option may not be applied to this Certificate program.

Courses for Nutrition and Dietetics, Food Science, and Hospitality, Foodservice and Hotel Management Options

- 132. Introductory Nutrition
- 176. Fundamentals of Food Preparation in Hospitality Foodservice and Hotel Management
- 233. Applied Foodservice Sanitation
- 234. Orientation to Dietetics and Food Administration
- 235. Principles of Food Preparation
- 270. Introduction to Hospitality Foodservice and Hotel Management
- 275. Food Production Systems I
- 276. Food Production and Service in Hospitality Foodservice and Hotel Management
- 301. College Dining Services and Bookstore Administration
- 330. Dairy Science
- 331A. Fundamentals of Human Nutrition
- 331B. Fundamentals of Human Nutrition
- 332. Food Science
- 336. Cultural Aspects of Food and Nutrition
- 338. Introduction to Food Processing
- 339. Metabolic Functions of Nutrients.
- 372. Hotel and Lodging Management
- 375. Food Production Systems II

- 376. Customer Service Management in the Hospitality Foodservice and Hotel Industry
- 377. Foodservice Administration
- 378. Legal Issues in Hospitality Foodservice and Hotel Management
- 379. Field Studies in Hospitality Foodservice and Hotel Management
- 430. Nutrition and Health
- 432./532. Food Analysis
- 433. Nutrition in the Life Cycle
- 435./535. Food Processing, Preservation and Packaging
- *436. Advanced Nutrition
- *436L. Nutritional Status Assessment Techniques
- 437. Beverage Management
- *438. Medical Nutrition Therapy
- 439. Nutrition and Aging
- 461. Community Nutrition
- 464./564. Sensory Analysis of Foods
- 466./566. Biochemical and Hormonal Adaptations to Physical Activity
- 469. Food Production Development
- *474./574. Cost Control in Hospitality Foodservice and Hotel Management
- 492F. Internship in Food Science
- 492J. Internship in Hospitality Foodservice and Hotel Management
- 492K. Internship in Nutrition and Dietetics

Gerontology Certificate (code FCS_CT03)

A Certificate in Gerontology (24 units) may be earned in conjunction with the baccalaureate or master's degree. The purpose of this multidisciplinary program is to prepare specialists to work in the field of aging. Specific requirements are listed under Gerontology.

Master of Arts in Family and Consumer Sciences (code FCS_MA01)

The Master of Arts degree in Family and Consumer Sciences is designed for students seeking a master's degree, or professional enhancement, or for those wishing to pursue further graduate study. The mission of the program is to educate students to become competent researchers and practitioners who are responsive to the complex and changing needs of diverse families and communities.

The main goal of the graduate program is to provide an opportunity for students to increase competencies and knowledge within their disciplines. In addition, the program gives students opportunities to develop professional leadership and administrative skills. Students are able to work collaboratively with individuals in other disciplines as well as diverse communities to improve the quality of life.

The focus of the curriculum is to promote an understanding of theoretical approaches to the study of the disciplines within the department and the application of theories to enhance the quality of life of individuals, families, and communities. All students will get a strong background in research methods. The advanced candidate selects either a thesis track or directed project track to facilitate a selected career path. Students can expect to:

- Gain professional leadership and knowledge,
- Develop scholarship and research abilities,
- Enhance professional development.

There are three specializations in the Master of Arts degree in Family and Consumer Sciences.

- Apparel Design and Merchandising
- Consumer Affairs
- Family and Consumer Sciences Education

Interested students should contact Dr. Mary Jacob, Family and Consumer Sciences Graduate Coordinator, at (562) 985 4516 or marjacob@csulb.edu. On-line information can be found at www.csulb.edu/~marjacob.

Admission

Prospective applicants must comply with University requirements for admission to graduate studies as outlined in the CSULB Catalog. Students must concurrently submit applications to the University Admissions and Records office and the Department.

Admission Requirements to the Department

Admission to the Master of Arts in Family and Consumer Sciences is dependent upon approval by the Graduate Coordinator. The application requirements for prospective graduate students for the Master of Arts degree are:

1. An undergraduate overall GPA of at least 3.0 and a GPA of at least 3.0 in the last 60 undergraduate semester units.
2. A copy of the application submitted to the University Office of Admissions and Records.
3. Official transcripts of your baccalaureate degree. (These are in addition to those transcripts required for general graduate admission to California State University, Long Beach).
4. Three letters of recommendation (preferably from previous instructors).
5. Additional materials that provide evidence of academic performance may be requested (at a later date) after review of applicant's file.
6. Approval of the Graduate Coordinator.
7. THE DEADLINES FOR RECEIPT OF APPLICATIONS TO THE DEPARTMENT GRADUATE COORDINATOR ARE MAY 1ST FOR FALL ADMISSIONS AND NOVEMBER 1ST FOR SPRING ADMISSIONS.

If the appropriate coursework is taken in the correct sequence, the Qualifying Examination is passed with a grade of B and the Thesis or Directed Project requirements are completed in a timely manner, the student may be able to fulfill the requirements for the Master of Arts degree and graduate in two years (six semesters). This also requires the student to take six units every semester including two summer semesters. The Master of Arts degree in Family and Consumer Sciences offers three emphases: Apparel Design and Merchandising, Consumer Affairs, and Family and Consumer Sciences Education.

Prerequisites

1. A bachelor's degree with a major in Family and Consumer Sciences; or a bachelor's degree with a minimum of 24 units of upper division courses in Family and Consumer Sciences unless otherwise stated by the program area.
2. An undergraduate overall GPA of at least 3.0 and a GPA of at least 3.0 in the last 60 undergraduate units attempted. Students with less than a 3.0 GPA on the last 60 undergraduate units attempted, but who show promise in all

other aspects, may be given special consideration after petitioning for admission into the program through the Graduate Coordinator.

3. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If the prerequisite is outdated, the prerequisite(s) must be repeated or credit obtained by examination.
4. Students deficient in undergraduate preparation must take courses to remove these deficiencies at the discretion of faculty in the specified subject matter area and the Graduate Coordinator. Courses taken to remove deficiencies or raise the GPA may not be included in the graduate program of study.

Retention

1. Maintain a 3.0 or better grade point average in all graduate work completed at CSULB and all graduate work transferred to meet graduate requirements.
2. Pass the Qualifying Examination at the end of the first year of coursework with a grade of B. A candidate who has failed will be allowed to take the Qualifying Examination a second time and the department Graduate Coordinator should be contacted for specific procedures for the second attempt.
3. Continued satisfactory progress toward the degree objective.

Advancement to Candidacy

1. Classified status.
2. Satisfactory completion of the Writing Proficiency Examination (WPE).
3. Minimum of 3.0 overall GPA and a 3.0 GPA average in all units undertaken for the approval program of study.
4. Complete EDP 419, FCS 511, FCS 563, FCS 605, FCS 655A, and FCS 696.
5. Pass the Qualifying Examination with a grade of 'B' or better. This examination will test the ability of the graduate student to understand, analyze, integrate and apply information and concepts presented in the following courses: FCS 511, FCS 563, FCS 605, FCS 655A, and FCS 696.

A faculty committee will prepare the questions, administer and grade the Qualifying Examination. Students do not register for a course to take the Qualifying Examination

6. Approval of the Graduate Coordinator, and Associate Dean of the College of Health and Human Services.
7. Enrolled in the semester in which the Advancement to Candidacy takes place.

Requirements

1. Completion of a minimum of 34 units of approved upper division and graduate courses with a minimum of 21 units in FCS.
2. Completion of EDP 419 and FCS 511, 563, 605, 655A, 696, 697, 692 or 698, and 9 units of Advisor approved courses in the area of specializations (Apparel Design and Merchandising or Consumer Affairs or Family and Consumer Sciences Education).
3. Completion of an oral presentation of the Thesis or Directed Project report.

Family and Consumer Sciences Courses

- 511. Family Theories
- 515. Perspectives in Human Development
- 520./420. Personal Finance for the Aging
- 529./429. Consumer Protection
- 550. Cultural Bases of Textiles and Apparel Design
- 559. Dress and Interpersonal Behavior
- 561. Curriculum Development in Family and Consumer Sciences
- 563. Evaluation in Family and Consumer Sciences
- 592. Internship in Family and Consumer Sciences/Gerontology
- 597. Independent Study
- 605. Seminar in Administration of Family and Consumer Sciences/ Gerontology Programs
- 615A. Seminar in Child Development
- 655A. Literature Review and Research in Family and Consumer Sciences
- 655B. Apparel Product Development
- 696. Research Methods
- 697. Directed Research
- 698. Thesis

Master of Science in Gerontology (code FCS_MS02)

A Master of Science degree in Gerontology may be earned through the Department of Family and Consumer Sciences. This interdisciplinary program consists of 45 members of the Gerontology faculty interest group in 21 departments. Gerontology is the scientific study of the processes and phenomena of aging, including biological, psychological and sociological dimensions. Specific requirements are listed under Gerontology.

Master of Science in Nutritional Science (code FCS_MS01)

The Master of Science Degree in Nutritional Science offers 3 emphases: Clinical/Community Nutrition, Food Science, and Foodservice Systems Management. These provide an opportunity for students to:

1. Specialize in nutrition therapy/community nutrition, food science or hospitality foodservice and hotel management;
2. Complete a master's degree and the academic requirements to qualify for membership in the American Dietetic Association concurrently and become eligible to apply to the Approved Dietetic Internship;
3. Increase competence in food and nutrition subject matter in preparation for college teaching, research, graduate study beyond the master's degree and administrative positions in public and private agencies.

Admission Criteria

Prospective applicants must comply with University requirements for admission to graduate studies as outlined in the CSULB *Catalog*. Students must concurrently submit applications to the University Admissions and Records office and the Department.

Admission to the Master of Science in Nutritional Science is dependent upon approval by the Graduate Coordinator. The applicant must submit the following materials to the Graduate Coordinator in the Department of Family and Consumer Sciences.

1. A copy of the completed application submitted to the CSULB Office of Enrollment Services.
2. Official transcripts of all undergraduate course work.
3. Three letters of recommendation with at least two from instructors who have direct knowledge of the applicant's scholastic ability, and professional qualifications.
4. A bachelor's degree with an undergraduate overall GPA of 3.0 and a GPA of 3.0 on the last 60 undergraduate units attempted.
5. A minimum cumulative score of 1350 on the general Graduate Record Examination (GRE).
6. THE DEADLINES FOR RECEIPT OF APPLICATIONS TO THE DEPARTMENT GRADUATE COORDINATOR ARE MAY 1ST FOR FALL ADMISSIONS AND NOVEMBER 1ST FOR SPRING ADMISSIONS.

Prerequisites

1. Students may be admitted to the program under conditional status for several reasons. Students are responsible for meeting all conditional requirements to be removed from conditional status prior to enrolling in 500/600 level courses.
 - a. Students who need to bring their GPA up to 3.0 must achieve a GPA of 3.0 within one year of admission. The Graduate Coordinator, in consultation with the student and are faculty advisor, will identify courses after evaluation of transcripts. Courses taken to raise the GPA may not be included in the graduate program of study.
 - b. The student who needs to pass the Writing Proficiency Examination (WPE) must do so within one year of admission and must attempt the WPE the first semester of enrollment.
 - c. The student who needs to pass the Test of English as a Foreign Language (TOEFL) must do so within one year of admission.
 - d. The student who needs to complete prerequisite deficiencies must do so using a program of study developed with the specialization area faculty advisor and approved by the Graduate Coordinator.
2. Students from other disciplines will be required to complete prerequisite courses before enrolling in 500/600 level courses.
3. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit obtained by written examination. Specifically, basic biological science courses and foundation nutrition and food science courses are evaluated for currency. The department administers a proficiency examination covering the content of FCS 331A and 332 courses for students in all emphases who have not taken these courses or their equivalents within the past five years. In addition, FCS 331B course content will be included in the proficiency examination for students in the Nutrition Therapy/Community Nutrition emphasis. Any student failing to pass the proficiency examination with a grade of "B" or better must take the appropriate course for credit.
4. Entering graduate students will meet with the Graduate Coordinator to prepare a tentative degree program. In order to enroll in any graduate course, the student must complete all prerequisites and deficiencies and must obtain approval from the Graduate Coordinator.

Advancement to Candidacy

1. Satisfy the general University requirements for Advancement to Candidacy.
2. Complete 9 units of graduate courses, including FCS 696.
3. Successfully complete of the Writing Proficiency Examination (WPE).
4. Maintain a 3.0 GPA for all course work attempted as a graduate student.
5. Complete a Program of Study in consultation with a faculty advisor.
6. Approval by the Graduate Coordinator of Family and Consumer Sciences and the Associate Dean of the College of Health and Human Services.

Requirements

1. Completion of a minimum of 34-39 units depending on concurrent completion of a dietetic internship.
2. An advanced statistics course: EDP 519 or H/SC 503 or KPE 590 or BIOL 563 or BIOL 565 or a course approved by the faculty advisor.
3. At least 18 units of 500/600 level courses in Family and Consumer Sciences.
 - A. Nutrition Therapy with Dietetic Internship (39 units): BIOL 342, FCS 530A, 530B, 531, 562, 591A, 591B, 696, 697, 692 or 698, and advisor approved specialization courses.
 - B. Nutrition Therapy without Dietetic Internship (34 units): BIOL 543, FCS 530A, 530B, 562, 655A, 696, 697, 692 or 698, and advisor approved specialization courses.
 - C. Community Nutrition with Dietetic Internship (39 units): HSC 500, FCS 530A, 531, 562, 563, 591A, 591B, 636, 696, 697, 692 or 698, and advisor approved specialization courses.
 - D. Community Nutrition without Dietetic Internship (34 units): HSC 500, FCS 530A, 531, 562, 563, 636, 696, 697, 692 or 698, and advisor approved specialization courses.
 - E. Food Science (34 units): FCS 530A, 532, 533, 535, 564, 592, 597, 696, 697, 698, and advisor approved specialization courses.
 - F. Hospitality Foodservice and Hotel Management (34 units): FCS 573, 574, 597, 655A, 696, 697, 692 or 698, plus 9 units of advisor approved specialization courses.
4. An overall GPA of 3.0 or better.
5. A written thesis or a Directed Project.
6. Oral presentation of the thesis or Directed Project report.

American Dietetic Association (ADA) Accredited Dietetic Internship (DI)

The Department of Family and Consumer Sciences offers a combined Master of Science in Nutritional Science and DI supervised practice. This experience fulfills the registration eligibility requirements of the ADA to become a Registered Dietitian. Upon successful completion of the DI, the student will be eligible to write the Registration Examination for Dietitians.

The DI requires 1,093 hours total, with 928 hours of practice divided into four emphases: nutrition therapy, foodservice systems management, community and business/entrepreneurial nutrition. The Seminar in Dietetic Practice constitutes the remaining 165 hours of the DI. The supervised practice is conducted off campus at a variety of excellent facilities.

Opportunities exist in acute and long-term health care sites, as well as in teaching, research, community and governmental agencies. Students will receive training in general dietetics with experiences that expose them to various specialty areas.

Admission Requirements

1. Completion of the Didactic Program in Dietetics as stipulated by ADA with an original verification statement from a Didactic Director;
2. Earned baccalaureate degree;
3. GPA 3.0/4.0 scale required on the last 60 units of courses completed;
4. Related volunteer or work experience in the United States;
5. Graduate standing in the CSULB Master of Science, Nutritional Science program;
6. Application materials to Dietetic Internship Director by February 1st including three letters of recommendation, formal ADA application, a \$45 application fee, and copies of all college transcripts; and
7. Personal interview with Program Director and review committee.

Program Requirements

Upon satisfactory completion of the Supervised Practice in Dietetics: FCS 591A, the Seminar in Dietetic Practice: FCS 591B, and completion of two of the three core graduate courses, FCS 531, 533, 562 or equivalent with a grade of "A" or "B", the student will be eligible to take the Registered Dietitian (R.D.) exam sponsored by the American Dietetic Association.

The 6 units of required graduate courses and a total of 2 units of FCS 591B are applicable toward the M.S. degree in Nutritional Science. Completion of the M.S. degree is not a requirement for completion of the Dietetic Internship. Students should contact the Dietetic Internship Director for complete details on this program at www.csulb.edu/~gcfrank.

Career opportunities include: clinical dietitian; consultant; entrepreneur; community nutritionist; foodservice manager in hospitals, schools, universities, airlines, businesses; manager in restaurant, hotel, or lodging industries; researcher in the medical, food or nutrition industry, and government inspector in the food industry.

Nutritional Science Courses

- 530A. Carbohydrates, Lipids and Proteins
- 530B. Vitamins and Minerals
- 531. Advanced Community Nutrition
- 532./432. Food Analysis
- 533. Recent Advances in Food Science
- 535./435. Food Processing, Preservation and Packaging
- 562. Contemporary Issues in Nutrition
- 564./464. Sensory Analysis of Foods
- 566./466. Biomedical and Hormonal Adaptations to Physical Activity
- 574./474. Cost Control in Hospitality Foodservice and Hotel Management
- 573. Current Topics in Hospitality Foodservice and Hotel Management
- 591A. Professional Practicum in Dietetics
- 591B. Seminar in Dietetic Practice
- 635. Seminar in Food Science, Nutrition and Foodservice Systems Management
- 636. Nutrition and the Media

Courses (FCS)

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.) (CAN FCS 14)

132. Introductory Nutrition (3)

Prerequisite: One of the Foundation courses (may be taken concurrently). 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. Letter grade only (A-F). Not open to students with credit in FCS 232. (Lecture-discussion 3 hours.) (CAN FCS 2.)

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). Not open to students with credit in FCS 254. (Lecture-discussion 2 hours, Laboratory 3 hours.) (CAN FCS 10)

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.)

176. Fundamentals of Food Preparation in Hospitality Foodservice and Hotel Management (3)

(Recommended corequisite: CHEM 100, 202, or equivalent). This course covers the basic scientific principles related to various foods and food preparation methods from the perspective of the restaurant and foodservice industry. The fundamental skills and techniques used for handling and preparing foods to maintain quality and safety are covered. (Lecture-discussion 2 hours, laboratory 3 hours.) Letter grade only (A-F). Course fee required.

211. Guiding Young Children (3)

Prerequisites: PSY 100 or SOC 100 or FCS 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.)

213. Family, Community, and Young Children (3)

Introductory study of young children and the influences of family, school and community on their development. Exploration of various cultural and social factors, focusing on the resources necessary to promote healthy growth and development. Students may not substitute this course for FCS 413. (Seminar 3 hours.)

214. Environments for Preschool Children (3)

Prerequisites: FCS 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. (Lecture-discussion 3 hours.) Letter grade only (A-F).

215. Environments for Infants and Toddlers (3)

Prerequisites: FCS 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. (Lecture-discussion 3 hours.) Letter grade only (A-F).

219. Stress, Coping and Resiliency for the Professional Educator (3)

Prerequisites: ENGL 100. This course identifies stressors which diminish the effectiveness of the learning environment and place children at-risk for school problems. The Family Resiliency Model is utilized to examine critical family dynamics which affect children's emotional and psychological development. Stressors which spill over from the broader community (e.g., community violence, and natural catastrophes), as well as stressors which emerge from within the classroom (e.g., peer conflict, teacher-student conflict, and teacher-burnout) are also examined. Practical skills are provided to future teachers to assist them in managing their personal stress, in developing effective communication and conflict management skills, and in creating a safe, competence-producing and cooperative learning environment. (Lecture-Discussion 3 hours.) Letter grade only (A-F).

223. Personal and Family Financial Management (3)

Prerequisites: Completion of the 13 unit G.E. 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.)

228. Housing in Global Perspective (3)

Prerequisites: Completion of the 13-unit G.E. 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.)

233. Applied Foodservice Sanitation (1)

This course is designed to acquaint students with the principles of sanitation and safety as applied to any restaurant or institutional foodservice facility. The course content includes: the cause, control and investigation of foodborne illnesses; sanitary practices with purchasing, receiving, storing and preparing food; sanitary maintenance of kitchen, dining room and all equipment; personal hygiene; the safety of all equipment and the, food handler; vector control; and safety practices. (Lecture-discussion 1 hour.)

234. Orientation to Dietetics and Food Administration (2)

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. (Lecture-discussion 1 hour, activity 2 hours.)

235. Principles of Food Preparation (3)

Prerequisites: CHEM 100 or 111A or 202. Application of scientific principles in the preparation of selected food products with emphasis on the physical and chemical properties of food; methods and techniques of food preparation; factors that contribute to quality of prepared foods. (Lecture-discussion 2 hours, Laboratory 3 hours.) Course fee required. (CAN FCS 8)

251. Professional and Personal Apparel Selection (3)

Prerequisites: Completion of the 13-unit G.E. 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.) (CAN FCS 20)

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. (Lecture-discussion 3 hours.) Letter grade only (A-F).

256. Intermediate Apparel Production (3)

Prerequisites: FCS 154, 155 or 251. Continuation of construction techniques used in apparel production with concentration on current fabrics and techniques used in contemporary ready-to-wear. (2 hours discussion, 3 hours laboratory.)

257. Introduction to Apparel Flat Pattern (3)

Prerequisites: FCS 154, 155 or 251. Introduction to the design concept as it applies to flat pattern manipulation. (Discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

258. Fashion Merchandising and Design Practicum (3)

A structured work/learning experience in the retail industry designed to develop competencies required for successful performance in retail management or other fashion related fields. (Lecture-activity 3 hours.) Letter grade only (A-F).

270. Introduction to Hospitality Foodservice and Hotel Management (3)

Introduction to the hospitality foodservice and hotel industry and historical overview of the field. Careers in hospitality foodservice and hotel management are defined. Relationship of careers to the community and the foodservice and hotel/lodging industry are explored. Overview of the organization and current forces shaping foodservice and hotel operations. (Lecture-discussion 3 hours.)

275. Food Production Systems I (3)

Prerequisites: FCS 132 and 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. (Lecture-discussion 2 hours, laboratory 3 hours.) Course fee required.

276. Food Production and Service in Hospitality and Foodservice and Hotel Management (3)

Prerequisite: FCS 176. This course covers the fundamentals of planning, organizing, preparing, and serving of meals as applicable to the hospitality foodservice and hotel industry. Operations relative to the provision of quality food and beverage services are included. (Lecture-discussion 2 hours, laboratory 3 hours.) Letter grade only (A-F). Course fee required.

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. May be repeated for a maximum of 6 units. Letter grade only (A-F). (Seminar) Course may be repeated to a maximum of 6 units with different topics.

296. Applied Arts in Family and Consumer Sciences (3)

Applied arts in communicating design concepts for Family and Consumer Sciences professions. (Activity 3 hours.)

299. Themes and Issues in Family and Consumer Sciences (1)

Must be taken during first semester as Family and Consumer Sciences or Dietetics and Food Administration major. Study of family and consumer sciences as a discipline of study and a profession in both historic and contemporary perspectives. An integrative, interdisciplinary framework is the basis for examining the relationship of each area of specialization to the mission of family and consumer sciences and to the root disciplines. (Discussion 1 hour.)

Upper Division

301. College Dining Services and Bookstore Administration (3)

Prerequisite: Permission of instructor. Academic and experiential learning in the management of college dining services and bookstore. An internship for student employees of Forty-Niner Shops, Inc.; 150 hours of work experience, 18 hours of classroom instruction.

309I. The Consumer in the Legal and Economic Environment (3)

Prerequisites: Completion of G.E. Foundation courses; completion of one or more Exploration courses; upper division standing. Combines the economic and ethical components of consumer issues with a critical analysis of relevant substantive aspects of consumer law. Incorporates an integrated coverage of the economic, legal, 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. Same course as ECON 309I and FIN 309I. (Lecture-discussion 3 hours.)

311. Prenatal Development and Infancy (3)

Prerequisites: FCS 111 and 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.)

312I. Family and Personal Development (3)

Prerequisites: completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing; PSY 100, SOC 100 or ANTH 120. 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: FCS 111, and 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: Completion of the 13-unit G.E. Foundation requirements; ANTH 120 or PSY 100 or SOC 100 or consent of instructor. 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.)

321. Family and Consumer Resource Management (3)

Prerequisites: Completion of the 13-units G.E. Foundation requirements; upper division standing. Basic management principles applied to personal and family settings. The role of values, goal formation, decision-making, planning, implementing, and evaluation of managerial behavior in diverse family and cultural settings are examined. (Lecture-discussion 3 hours.)

322. Family Housing and the Urban Community (3)

Prerequisites: Upper-division standing. Critical analysis of family housing in the urban community including aspects of shelter, city and service providers. Sociological, psychological, legislative, economic and technical factors are investigated. Special attention is given to families of various structures and socioeconomic background (Discussion 3 hours.)

326. Consumer Problems (3)

Prerequisite: Upper-division standing. A study of consumer problems, their effective prevention, and resolution through government, business, and private organizations with a view toward personal and professional interventions. (Lecture-discussion 3 hours.)

330. Dairy Science (2)

Prerequisites: FCS 132, 235. Study of dairy science from chemical microbiological quality assurance, processing techniques, nutritional values, and economic standpoints. Integration of recent technology as implemented to feature marketed dairy products both traditional and contemporary. (Lecture-discussion 2 hours.)

331A. Fundamentals of Human Nutrition (3)

Prerequisites: FCS 132, BIOL 207, CHEM 302 or 327 or equivalent. Nutritional needs with emphasis on the physiological and chemical foundation for these needs; factors influencing nutrient needs. (Lecture-Discussion 3 hours.)

331B. Fundamentals of Human Nutrition (3)

Prerequisites: FCS 331A. Nutritional needs with emphasis on changes through the life cycle. Introduction to dietary modifications in various pathological conditions. Introduction to nutrition assessment and nutrition education techniques. (Lecture-discussion 3 hours.)

332. Food Science (3)

Prerequisites: CHEM 327; FCS 235; MICR 200 or equivalent. 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. (Lecture-discussion 2 hours, laboratory 3 hours.) Course fee required. Letter grade only (A-F).

336. Cultural Aspects of Food and Nutrition (3)

Prerequisites: PSY 100 or SOC 100 or ANTH 120 or equivalent; FCS 132. Cross-cultural study of food and nutrition. Factors such as religion, food supply and socioeconomic status are considered as they influence nutritional status and food intake in various populations throughout the world. (Lecture 3 hours.)

338. Introduction to Food Processing (3)

Prerequisites: FCS 332. Study of industrial concepts of food processing and technology. Discussion of processing raw agricultural commodities through the production phases to a final product acceptable to consumers. (The course may include limited visitations to food preparation sites.) (Lecture-discussion 3 hours.)

339. Metabolic Functions of Nutrients (1)

Prerequisites: CHEM 302, BIOL 207, and consent of instructor. Metabolic role of nutrients in the human body; practical application of nutrition to patient care. Open to Nursing Majors only. (Activity 2 hours.)

351. Fashion Promotion and Sales (3)

Prerequisites: FCS 155, 251, 252 or 154. 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.)

352. Computerized Apparel Flat Pattern (3)

Prerequisites: FCS 256, 257 and 387. Use of computer aided design software for apparel pattern development. (Laboratory 6 hours.) Letter grade only (A-F).

353. Intermediate Textiles (3)

Prerequisites: CHEM 100 or 111A; FCS 155 and 253. Interrelationship of fiber, yarn, structure, fabric geometry and finishing treatments to the textile's appearance, comfort, durability and maintenance. (Lecture-discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

354. Analysis of Apparel Design and Tailoring (3)

Prerequisites: FCS 155, 251, 256 and 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. (Discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

355. Fashion Merchandising Planning and Control (3)

Prerequisites: ELM Passage, ACCT 201, FCS 155, IS 240 or FCS 387, or consent of instructor. 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. (Discussion 3 hours.)

357. Advanced Apparel Flat Pattern (3)

Prerequisites: ELM passage, FCS 155, 251, 253, 256 and 257. Exploration of the total design concept as it applies to pattern manipulation. (Discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

358. Fathers and Fathering (3)

Prerequisites: PSY 100 and SOC 100 or FCS 111. An overview of the sociological and psychological literature on parenting with emphasis on fathers and fathering in the U.S. Focus on current literature and research regarding the perceived and changing roles of fathers. Discussion of fathers from various ethnic groups in an effort to diminish stereotypes. Same course as PSY 366. (Lecture-discussion 3 hours.)

372. Hotel and Lodging Management (3)

Prerequisite: FCS 270. Students will become acquainted with the organization and management of hotel and lodging facilities. The course covers the functions of various operational departments and how they interrelate. The importance of assuring quality guest service will be emphasized. Field trips may be required. (Lecture - discussion 3 hours.)

375. Food Production Systems II (3) F,S

Prerequisites: FCS 233 and 275. Facilities at various types of quantity food operations are utilized to provide students with production and operational experiences -- menu planning, costing, standardizing recipes, serving, merchandising, sanitation and safety. Field experiences include commercial and non-commercial settings, such as, hospitals, restaurants, hotels, school districts, universities, airlines, and senior foodservice systems. (Lecture - discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

376. Customer Service Management in the Hospitality Foodservice and Hotel Industry (3)

Prerequisites: FCS 270. Components of customer service management and guest relations in the foodservice and lodging industries are examined. Importance of quality customer service and its relationship to the success of operations in the industry will be covered. Field trips and off-campus activities required. (Lecture-activity 3 hours.) Letter grade only (A-F).

377. Foodservice Administration (3)

Prerequisites: FCS 375. Principles of administration and leadership in commercial and non-commercial foodservice operations are explored. Topics include organizational management, human resource management, productivity, financial management, facilities planning and design, and quality management as they are applied to the foodservice industry. (Lecture - discussion 3 hours.)

378. Legal Issues in Hospitality Foodservice and Hotel Management (3)

Prerequisite: Upper division standing or consent of instructor. The laws of foodservice and lodging are examined as they have evolved historically and as they exist today. Legal components of foodservice and lodging management will be covered. (Lecture discussion 3 hours.) Letter grade only (A-F).

379. Field Studies in Hospitality Foodservice and Hotel Management (1-3)

Prerequisites:/Course Description: Upper division standing or consent of instructor. A structured experiential learning course designed to expand professional experiences and to enhance the development of competencies required for successful performance in hospitality foodservice and hotel management. Course may be repeated for a maximum of six units. Letter grade only (A-F).

387. Consumer Technology (3)

Prerequisites: FCS 299 and upper division standing. The impact of consumer technology on the quality of life of individuals and families at home, in home-based work environments, and in professional environments. Computer application for consumers in family resource and household management, including problem solving and decision-making. Professional applications. Analysis of social, psychological, and economic impacts. Discussion 2 hours, Laboratory 3 hours.)

402./502. Child and Family Law (3)

Prerequisites: FCS 312I and upper division standing. Establishment, conduct, and termination of family relationships as well as the rights and duties of parties to non-marital family relationships will be examined. Topics include, the "Best Interest of the Child Rule," artificial insemination, property rights, adoption, child custody, domestic violence, support of children, spousal support, genetic testing, new trends in family law, and paternity. Letter grade only (A-F). (Lecture-discussion 3 hours.)

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 to students currently enrolled in the Liberal Studies program. Same course as LING 429, EDEL 429, and EDP 428.

410. International Families: Families in Cross-Cultural Perspectives (3)

Prerequisites: FCS 312I or consent of instructor. Designed to provide students with an in-depth understanding of cross-cultural diversities in families from varied nationalities. Information concerning similarities and differences which exists in such areas as dating and marriage customs, family structure and family forms from selected cross-cultural families will be considered. (Lecture-discussion 3 hours.)

***411. Individual Child Study and Guidance (3)**

Upper-division standing, a 300 level course in Child/Human Development, 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-discussion 3 hours.)

***412. Family Interaction (3)**

Prerequisites: Upper-division standing, FCS 312I, 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: Upper-division standing, FCS 312I, 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: FCS 111, 211, 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. Course may be repeated for up to 6 units with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours.)

415. Fieldwork with Infants/Toddlers (3)

Prerequisites: FCS 111, 211, 214, or consent of instructor. Supervised teaching/learning experience with infants/toddlers, including development of skills for observation and assessment as well as curriculum planning, implementation, and evaluation. Course may be repeated for up to 6 units with assignments reflecting increasing levels of difficulty. (Lecture 1 hour, laboratory 6 hours.)

416A. Introduction to Administration and Supervision of Child Development Programs (3)

Prerequisites: FCS 414 or FCS 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. Letter grade only (A-F). (Lecture-discussion 3 hours.)

416B. Applications of Administration and Supervision of Child Development Programs (3)

Prerequisites: FCS 416A or consent of instructor. Decision theory and its application, communication strategies, planning, operating and evaluating programs for young children. (Lecture-discussion 3 hours.) Letter grade only (A-F).

417. Premarital Intervention (3)

Prerequisites: FCS 312I or consent of instructor. Review of research on dating relationships and intervention programs designed for individuals or couples prior to marriage. Consideration of shyness, dating anxiety, intimacy, sexual decision-making, values clarification, self-disclosure, and conflict resolution. Emphasis on applying research to the development of programs to assist premarital individuals enrich their relationships. (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. Letter grade only (A-F). (Lecture-activity 3 hours.)

***419. Family Life Education (3)**

Prerequisites: Upper-division standing, FCS 413, or consent of instructor. Concepts, principles and paradigms on family life education will be explored. Contemporary issues confronting individuals and families will be addressed. The focus of the course is on planning, implementing, and evaluating family life education programs. Gender, ethnicity, and diversity issues as they relate to family life education will be stressed. 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. Provides an understanding of the operations of personal finance as applied to the aging population. Topics include public and private sources of income, living expense, public and private sources of assistance, personal budget systems, financial planning,

legal rights of the aged affecting their personal finances, and financial counseling for the aging. Same course as GERN 420/520. (Lecture-discussion 3 hrs)

***422. Housing Policies: Public and Private (3)**

Prerequisites: FCS 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.)

***424. Independent Living for Disabled and Elderly Persons (3)**

Prerequisite: FCS 321 or 322 or GERN 400I or consent of instructor. Independent living concepts related to physically and/or functionally disabled adults. Personal, environmental and programmatic responses to disability and aging. Activities include individual and group projects and site visits to such locations as an adapted private home, an Independent Living Center, a "special clothing" manufacturer, and a multipurpose rehabilitation center. Same course as GERN *424. (Lecture-Activity 3 hours.)

***425. Personal Financial Planning Analysis (3)**

Prerequisite: FCS 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: FCS 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.)

***428. International Housing (3)**

Prerequisite: FCS 322 and upper division standing. Theories and solutions of family housing in urban and rural communities throughout the world. Letter grade only (A-F) (Discussion 3 hours.)

429./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. (Seminar 3 hours.)

430. Nutrition and Health (3)

Prerequisite: Upper-division standing. Intensive study of nutrition including evaluation of current trends in food and nutrition. Designed for students in health education, elementary and secondary education, social service and other elective students. Not open to family and consumer sciences majors. (Lecture-discussion 3 hours.)

432./532. Food Analysis (3)

Prerequisites: CHEM 327, FCS 332 or equivalent. Application of scientific methods of food analysis. Consideration of the manner in which such variables as ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems. (Seminar 2 hours, Laboratory 3 hours.) Course fee required. Letter grade only (A-F).

433. Nutrition in the Life Cycle (3)

Prerequisite: FCS 132 or 331A or equivalent. Nutrition throughout the life cycle. Interaction of physical, biological, cultural and psychological factors involved in assessing and maintaining optimal nutritional health. Community nutrition programs introduced. (Lecture-discussion 3 hours.)

435./535. Food Processing, Preservation and Packaging (3)

Prerequisites: FCS 332 or consent of instructor. Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutritional and physical qualities. Evaluation of chemical additives in food products. Microbiological aspects of food safety and food plant sanitation. (Lecture-discussion 2 hours, laboratory 3 hours.)

***436. Advanced Nutrition (3)**

Prerequisites: FCS 331B, CHEM 448, 449 (may be taken concurrently). Metabolism of proteins, fats, carbohydrates, minerals and vitamins; interrelationship of nutrients; principles of determining nutritional requirements of individuals. (Lecture-discussion 3 hours.)

***436L. Nutritional Status Assessment Techniques (2)**

Prerequisites: FCS 436 (may be taken concurrently), CHEM 449. Designed to provide training in nutrition assessment and nutrition counseling. Use of procedures for interviewing, counseling and instructing patients/clients in various settings comparable to those encountered in dietetic practice. Includes laboratory methods for collection and interpretation of demographic, dietary, anthropometric, biochemical and clinical data. (Laboratory 3 hours, Clinical Practice 3 hours.)

437. Beverage Management (3)

Prerequisites: FCS 375, 377, senior standing. Identification, use and service of wines and other alcoholic beverages, with an in-depth analysis of the various elements of beverage operations including purchasing, control, merchandising and bar management. Field trips are made to hotels and restaurants to demonstrate and observe operating principles. (Lecture-discussion 3 hours.)

***438. Medical Nutrition Therapy (3)**

Prerequisites: FCS 436, 436L (may be taken concurrently). Therapeutic nutrition. Metabolic changes in specific pathological conditions; dietary modifications used for treatment. (Lecture-discussion 3 hours.)

***439. Nutrition and Aging (3)**

Prerequisites: FCS 132 or BIOL 207 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 people. Same course as GERN *439. (Lecture-discussion 3 hours.)

450. Cultural Perspectives of Dress (3)

Prerequisites: Completion of the 13-unit G.E. Foundation requirements; ANTH 120 OR SOC 100 OR 142 and upper division standing or consent of instructor. 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 are studied. 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 is included. (Seminar 3 hours.)

***452. Apparel Draping (3)**

Prerequisites: FCS 353, 354 and 357, or consent of instructor. Exploration of the total design concept as it applies to fabric manipulation. (Discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

***453. Quality Control in Fashion Merchandising and Design (3)**

Prerequisites: FCS 353. The use of target market characteristics, textile testing and product development to assure quality in products. (Discussion 1 hour, Activity 4 hours.) Letter grade only (A-F).

***454. Experimental Apparel Design (3)**

Prerequisites: FCS 352, 452 and 453. 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. (Discussion 2 hours, Laboratory 3 hours.) Letter grade only (A-F).

***455. Global Perspectives of Fashion Merchandising (3)**

Prerequisites: FCS 155, 252 or 154, 351 and 355. Senior standing, or consent of instructor. Application of merchandising concepts for the budgeting, planning, buying, promoting and selling of fashion goods and apparel in retail organizations. (Discussion 3 hours.) Letter grade only (A-F).

456. Historic Perspectives of Fashion (3)

Prerequisites: FCS 251, 253, HIST 131 or AH 115B. 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. (Seminar 3 hours.) Letter grade only (A-F).

457. International Textiles and Apparel (3)

Prerequisites: ECON 100 and 101 or 300, FCS 353, senior standing, or consent of instructor. International, political and economic issues relevant to the textile and apparel industries. Emphasis on understanding international aspects of the textile and apparel industries in the United States. (Seminar 3 hours.)

***458. Fashion Product Development (3)**

Prerequisites: Six upper-division units in apparel design and merchandising or consent of instructor. The process of designing and engineering fashion products to be serviceable, producible, salable and profitable for various consumer market segments. (Discussion 3 hours.)

461. Community Nutrition (3)

Prerequisites: Upper-division standing, FCS 331B. Survey of nutrition programs in the community. Techniques of program planning, implementation, management and evaluation (Lecture-activity 3 hours.) Letter grade only (A-F).

464./564. Sensory Analysis of Foods (3)

Prerequisites: FCS 332, BIOL 260 or equivalent statistics; consent of instructor. Principles and methods of analysis of sensory attributes. Applications, advantages and limitations of sensory methods using trained judges and consumer panels. Computer use of statistical data analysis and plotting. Statistical analysis, data interpretation and comparison with previous literature. (Discussion 2 hours, Laboratory 3 hours.) Course fee required.

466./566. Biochemical and Hormonal Adaptations to Physical Activity (3)

Prerequisites: Upper-division undergraduate or Graduate standing; KPE 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration. 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. Upper-division undergraduate students register in FCS 466; graduate students register in FCS 566. Letter grade only (A-F). Same course as KPE 466./566. (Seminar 3 hours.)

469. Food Production Development (1)

Prerequisites: FCS 332, 338, 432 and 435 or consent of instructor. Industrial concepts of food product development, formulation and technology. The course will focus on the principles of new product development, identification of ingredient replacements and improvements. Development of a prototype, ingredient interaction, and the functions of different applications of newly created product in consideration of cost analysis. Letter grade only (A-F).

474./574. Cost Control in Hospitality Foodservice and Hotel Management (3)

Prerequisites: FCS 375 or consent of instructor. Financial management, including control of food, labor, supplies, equipment and other operational costs; principles and procedures used for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; factors affecting quality and customer satisfaction; inventory and security management; utilization of computers in cost control; and analysis of financial reports in the hospitality foodservice and hotel industry. (Lecture - discussion 3 hours.) Miscellaneous course fee: \$25.00

***486. Teaching-Learning Strategies in Family and Consumer Sciences (3)**

Utilize the principles and concepts of each area of family and consumer sciences in developing a variety of teaching-learning experiences appropriate for individuals or groups in an education, business, government agency, or other community setting. (Laboratory 6 hours.)

***488. Developing Occupational Programs in Family and Consumer Sciences (3)**

Prerequisite: EDSS 300H or teaching experience or consent of instructor. Utilizing knowledge and skills derived from the field of family and consumer sciences as a basis for offering occupational opportunities for youth and adults through planning programs in school and community. (Lecture-discussion 3 hours)

***490. Special Topics (1-3)**

Group investigation of selected topics. Topics will be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of 9 units. (Seminar 1-3 hours.)

A. European Fashion Study Tour**B. New York Fashion Study Tour****C. Los Angeles Fashion Study Tour****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 FCS 411, 413, and 414 or 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. A student receiving a grade lower than a "C" may proceed with other courses with approval of the Area Coordinator. Field experience of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

492B. Internship in Certified Family Life Educator (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 FCS 319, 412, and 413. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

492C. Internship in Consumer Affairs (3)

Prerequisites: Student must be a Family and Consumer Sciences: Consumer Affairs major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Consumer Affairs; and FCS 321, 326, 422, 425, 429, or consent of instructor. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

492D. Internship in Family and Consumer Sciences Education (3)

Prerequisites: Student must be a Family and Consumer Sciences Education major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a Family and Consumer Sciences Education faculty advisor. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

492E. Internship in Fashion Merchandising (3)

Prerequisites: Student must be a Family and Consumer Sciences: Fashion Merchandising major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Apparel Design and Merchandising; and FCS 455 and 457. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

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 FCS 331A and 332; FCS 432 is recommended. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

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 400I, ANTH 454, PSY 365 or HDEV 357I. 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 of 120 hours in which the student as-

sumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. Same as GERN 492G. (Seminar 3 hours.)

492J. Internship in Hospitality Foodservice and Hotel Management (3)

Prerequisites: Student must be a Family and Consumer Sciences: Hospitality Foodservice and Hotel Management major; have senior standing; have a 2.5 overall GPA or a 3.0 major GPA; approval of a faculty advisor in Hospitality Foodservice and Hotel Management; and FCS 275, 375 and 800 hours of approved work experience. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

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 FCS 275, 331B and 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consists of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.)

492M. Internship in Apparel Design (3)

Prerequisites: FCS 452 and 453. Student must be a Family and Consumer Sciences Textiles and Clothing major, have senior standing, a 2.5 GPA overall or a 3.0 GPA in the option major and approval of a faculty member. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consist of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. (Seminar 3 hours.) Letter grade only (A-F).

497. Directed Studies (1-3)

Prerequisites: Upper class standing, consent of instructor. Independent study under the supervision of a faculty member. Exploration and experience in areas which are not a part of any regular course. May be repeated for a maximum of six units.

499. Perspectives in Family and Consumer Sciences (2)

Prerequisites: FCS 299, 321, 12 units of upper division coursework in Family and Consumer Sciences completed prior to enrollment. Must be taken in one of the last two semesters prior to graduation. Analysis of contemporary issues, public policies and future directions of family and consumer sciences as a discipline of study and as a profession with integrated specializations will be undertaken. A culminating outreach project is developed to emphasize the contribution of each specialization to the quality of life for individuals and families in an urban setting. (Lecture-discussion 2 hours.)

Graduate Level

502./402. Child and Family Law (3)

Prerequisites: FCS 312I and upper division standing. Establishment, conduct, and termination of family relationships as well as the rights and duties of parties to non-marital family relationships will be examined. Topics include, the "Best Interest of the Child Rule," artificial insemination, property rights, adoption, child custody, domestic violence, support of children, spousal support, genetic testing, new trends in family law, and paternity. Letter grade only (A-F). (Lecture-discussion 3 hours.)

511. Family Theories (3)

Prerequisite: FCS 412 or 413 or consent of instructor. Theoretical approaches to the study of the family; analysis of the process of interaction between the individual, the family and society with emphasis on current issues. (Seminar 3 hours.)

515. Perspectives in Human Development (3)

Prerequisite: FCS 411 or consent of instructor. Theory, trends and research toward maximum development of human potential as it applies to children in the family and community. (Seminar 3 hours.)

520./420. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor. Provides an understanding of the operations of personal finance as applied to the aging population. Topics include public and private sources of income, living expense, public and private sources of assistance, personal budget systems, financial planning, legal rights of the aged affecting their personal finances, and financial counseling for the aging. Same course as GERN 520/420. (Lecture-discussion 3 hours.)

529./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.)

530A. Carbohydrates, Lipids and Proteins (3)

Prerequisites: FCS 436, 436L, 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: FCS 436, 436L, BIOL 260. Nutritional, metabolic and clinical aspects of vitamins and minerals. Current knowledge of interactions between micro- and macro-nutrients. Principles of nutritional status assessment and determination of needs. Letter grade only (A-F). (Seminar 3 hours.)

531. Advanced Community Nutrition (3)

Prerequisites: FCS 436 and 436L or 562; 461. Program planning and evaluation with emphasis on major nutrition-related public health problems. Students develop protocols for nutrition questionnaires, define a study sample and collect data. Skill development involves data analyses on computerized statistical packages, verbal and written communications. (Lecture-discussion 3 hours.)

532./432. Food Analysis (3)

Prerequisites: CHEM. 327, FCS 332 or equivalent. Application of scientific methods of food analysis. Consideration of the manner in which such variables as ingredients, proportions, and techniques in food preparation affect the quality of products. Experimental laboratory problems. (Seminar 2 hours, Laboratory 3 hours.) Course fee required. Letter grade only (A-F).

533. Recent Advances in Food Science (3)

Prerequisites: FCS 432 or consent of instructor. New developments in food processing, techniques of food preservation and, chemical additives. Food and water sanitation. Methods of standardization, preservation, and evaluation of quality. Retention of nutritive value, flavor, appearance, and safety of foods. (Seminar 3 hours.) Letter grade only (A-F).

535./435. Food Processing, Preservation and Packaging (3)

Prerequisites: FCS 332 or consent of instructor. Methods and technological aspects in food processing, preservation and packaging. Application of principles and assessment of nutritional and physical qualities. Evaluation of chemical additives in food products. Microbiological aspects of food safety and food plant sanitation. (Lecture-discussion 2 hours, Laboratory 3 hours.)

550. Cultural Bases of Textile and Apparel Design (3)

Prerequisites: FCS 353, 450, 456, 457 or equivalents or consent of instructor. Factors influencing design and techniques of textile and apparel production in societies that create and use them. Symbolism of indigenous and adapted textile and clothing designs as a communicative device for expressing social and cultural values. Course may be repeated to a maximum of six (6) units with assignments of increasing levels of difficulty. (Seminar 3 hours.)

559. Dress and Interpersonal Behavior (3)

Prerequisites: Admission to the Fashion Merchandising and Design emphasis in the Family and Consumer Sciences graduate program or consent of instructor. Theories and methods of studying dress and interpersonal behavior. Theories and their relativity to dress include: social cognition, personal perception, self perception, attitudes and attitude changes, prejudice, interpersonal attraction, helping and hurting others, and social construction of gender. (Seminar 3 hours.) Letter grade only (A-F).

561. Curriculum Development in Family and Consumer Sciences (3)

Prerequisite: Field experience in Home Economics, Family and Consumer Sciences or a related area. Current philosophies and principles basic in the analysis and organization of curricular programs and materials. (Seminar 3 hours.)

562. Contemporary Issues in Nutrition (3)

Prerequisite: FCS 436 or consent of instructor. Analysis of recent developments and current research in human nutrition. Topics include: nutrition through the life cycle; diet and dental health, athletic performance, human behavior, obesity, cancer; vegetarianism; practical application of scientific knowledge to diet management. (Seminar 3 hours.)

563. Evaluation in Family and Consumer Sciences (3)

Prerequisites: Upper division course in research methods (preferably FCS 696) and upper division course in statistics, or consent of instructor. Principles, design, and methods of evaluation for use by professional family and consumer scientists. Selection and development of instrumentation for data collection and interpretation, methods of reporting for purposes of accountability. (Seminar 3 hours.) Letter grade only (A-F). Same course as GERN 563.

564./464. Sensory Analysis of Foods (3)

Prerequisites: FCS 332, BIOL 260 or equivalent statistics; consent of instructor. Principles and methods of analysis of sensory attributes. Applications, advantages and limitations of sensory methods using trained judges and consumer panels. Computer use of statistical data analysis and plotting. Statistical analysis, data interpretation and comparison with previous literature. (Discussion 2 hours, Laboratory 3 hours.) Course fee required.

566./466. Biochemical and Hormonal Adaptations to Physical Activity (3)

Prerequisites: Upper-division undergraduate or Graduate standing; KPE 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration. 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. Upper-division undergraduate students register in FCS 466; graduate students register in FCS 566. Letter grade only (A-F). Same course as KPE 566./466. (Seminar 3 hours.)

573. Current Topics in Hospitality Foodservice and Hotel Management (3)

Prerequisite: Graduate standing. A review and evaluation of recent developments and current issues in hospitality foodservice and hotel management. Topics related to operations management, customer service, human resource management, and strategic planning in the foodservice and lodging industries are examined. (Seminar, 3 hours.) Letter grade only (A-F).

574./474. Cost Control in Hospitality Food Service and Hotel Management (3)

Prerequisites: FCS 375 or consent of instructor. Financial management, including control of food, labor, supplies, equipment and other operational costs; principles and procedures used for controlling purchasing, receiving, storing, and issuing of food, beverage, and supplies; factors affecting quality and customer satisfaction; inventory and security management; utilization of computers in cost control; and analysis of financial reports in the hospitality food service and hotel industry. (Lecture - discussion 3 hours.) Miscellaneous course fee: \$25.00

591A. Professional Practicum in Dietetics (11)

Prerequisite: Admission to the American Dietetic Association (ADA) Dietetic Internship (DI) and consent of instructor. Supervised on-site practicum in selected field settings preparing the student to meet performance requirements to qualify for the dietetic registration examination. A total of 22 units of FCS 591A are required to complete the DI, with the maximum of 11 units per semester. Partial application toward the MS degree in Nutritional Science. Course may be repeated for a maximum of 22 units.

591B. Seminar in Dietetic Practice (1)

Concurrent enrollment in FCS 591A. Oral and written presentations, critical review of case studies and practices in the American Dietetic Association (ADA) Dietetic Internship (DI) field experience, FCS 591A Professional Practicum in Dietetics. A maximum of 2 units applicable to the M.S. degree in Nutritional Science. Letter grade only (A-F). Course may be repeated for a maximum of 2 units. (Seminar 1 hour.)

592. Internship in Family and Consumer Sciences/Gerontology (3)

Prerequisites: 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 six units. Same course as GERN 592. (Seminar 3 hours.)

597. Independent Study (1-3)

Prerequisites: FCS 400 level course in area of study. Varied learning activities utilized to achieve competency related to family and consumer sciences not offered in regular course. Written report required. (Projects.)

605. Seminar in Administration of Family and Consumer Sciences/Gerontology Programs (3)

Prerequisites: FCS 696 or GERN 696 or consent of instructor. Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Concepts include structure of organizations, leadership styles, management techniques, methods of analyzing and evaluating business systems, management philosophies and performance evaluation procedures. Activities and assignments focus on organization theory, planning, decision making and control techniques, in relation to leadership and management skills needed for success as a family and consumer sciences/gerontology administrator. Same course as GERN 600. (Seminar 3 hours.)

615A. Seminar in Child Development (3)

Prerequisites: FCS 511 or 515, 696 or consent of instructor. Area of study will be announced in the *Schedule of Classes*. (Seminar 3 hours.)

635. Seminar in Food Science, Nutrition and Foodservice Systems Management (2)

Prerequisite: Graduate standing. Presentation and description of advanced work in special fields of food science, nutrition therapy, foodservice systems management. Letter grade only (A-F). (Seminar 2 hours.)

636. Nutrition and the Media (3)

Prerequisites: Graduate standing, FCS 331A or equivalent. Students learn the basic skills for analyzing and communicating sound nutrition messages. Projects involve program planning to address major nutrition-related public health problems with community-based nutrition interventions using the media. Students translate nutrition research into messages to educate the public. (Lecture-activity 3 hours.) Letter grade only (A-F).

655A. Literature Review and Research in Family and Consumer Sciences (3)

Prerequisites: ED P 419. Critical analyses of the current professional literature, theory, practice and research. The research process including conceptualization of the problem, literature search and review. The legal and ethical aspects of research are stressed. (Seminar 3 hours) Letter grade only (A-F).

655B. Apparel Product Development (3)

Prerequisites: ED P 419, FCS 655A and 696. An introduction to the research and strategies needed to develop apparel products and services for culturally diverse consumer markets. (Seminar 3 hours.)

692. Directed Project (1-4)

Prerequisite: FCS 697. Students will acquire experiential skills at a potential employment setting such as a government agency, clinical/research institution or an industry site. The student will work directly under the guidance of an approved supervisor/preceptor at the site in conjunction with a faculty advisor. The student's practical experience will be directed toward identifying and solving problems or conducting research or designing, implementing, and assessing programs or recommending potential courses of action. Letter grade only (A-F).

696. Research Methods (3)

Prerequisite: Upper-division course in statistics (may be taken concurrently). Problems in family and consumer sciences with emphasis on the methods of research and use of the library. Required of all master's degree candidates in family and consumer sciences. (Seminar 3 hours.)

697. Directed Research (3)

Prerequisites: Advancement to candidacy. Student works under direct faculty supervision to complete a proposal for the thesis or directed project (thesis).

698. Thesis (1-4)

Prerequisites: Advancement to candidacy, approval of department graduate committee. Planning, preparation and completion of a thesis related to the family and consumer sciences field. (Thesis.)



FEES

Average Annual Cost of Education and Sources of Funds Per Full-Time Equivalent Student

The 23 campuses and the Chancellor's Office of the California State University are financed primarily through funding provided by the taxpayers of California. The systemwide cost of education is defined as total support expenditures (State University Fee revenue and General Fund support appropriations) divided by the number of full-time equivalent students. The total 2002/03 state General Fund appropriation to the CSU (not including capital outlay funding in the amount of \$481,178,000) is \$2,680,280,000 and campus budgeted State University Fee Revenue is \$533,430,000 for a total of \$3,213,710,000. The \$3,213,710,000 total cost of education for the CSU must provide support for a projected 321,132 full-time equivalent students (FTES). The number of full-time equivalent students is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The 2002/03 systemwide cost of education per full-time equivalent student is \$10,007. Of this amount, the average student fee support per FTE is \$1,926. (The State University Fee, and campus fees that must be paid to apply to, enroll in, or attend the university are included in the average costs paid by the students. Individual students may pay less or more than \$1,926, depending on the campus and whether the student is attending part-time/full-time, or is a resident/nonresident student. Also, other campus fees may be charged that are not required of all enrolled students, which include user and penalty/deposit fee types.)

	Amount	Avg Cost per FTE Student	%
Total Cost of Education	\$3,213,710,000	\$10,007	100.0
• State Appropriation	2,680,280,000	8,346	83.0
• Student Fee Support	533,430,000	1,661	17.0

Schedule of Fees 2002-2003

Legal residents of California are not charged tuition. The following reflects applicable systemwide fees and nonresident tuition for the semester system in which CSULB operates. The following fees represent Fall 2002 and Spring 2003 semesters. (Fees are subject to change without notice.)

Students who wish to drop units AND to simultaneously or subsequently add the same number of units to accomplish this exchange may do so without financial penalty in State University 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.

Procedure for the Establishment or Abolishment of a Student Body Fee

The law governing the California State University provides that 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 to two-thirds of the students voting in an election held for this purpose (Education Code Section 89300). 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 on 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 child care 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 sometimes a student referendum. 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 also request the Chancellor to establish the mandatory fee. Authority to adjust fees after consideration by the campus fee advisory committee and the completion of a student referendum is delegated to the President.

All Students

Application Fee (nonrefundable), payable by check or money order at time application is made: \$55.00

Undergraduates

State University Fee (per semester)

0.0 units to 6.0 units \$456.00
 6.1 units or more \$786.00

Other Mandatory Activity Fees (per semester)

Facilities Fee \$3.00
 Instructionally Related Activities Fee (IRA) \$25.00
 Associated Students Inc. Fee \$44.00
 University Student Union Fee \$50.00
 Student ID Card \$1.00
 Student Health Services Fee \$35.00
 Total Resident Fees Per Semester
 0.1 to 6.0 units \$572.00
 Total Resident Fees Per Semester
 6.1 or more units \$872.00

Graduates

State University Fee (per semester)

0.1 units to 6.0 units	\$504.00
6.1 units or more	\$867.00

Other Mandatory Activity Fees (per semester)

Facilities Fee	\$3.00
Instructionally Related Activities Fee (IRA)	\$25.00
Associated Students Inc. Fee	\$44.00
University Student Union Fee	\$50.00
Student ID Card	\$1.00
Student Health Services Fee	\$35.00
Total Resident Fees Per Semester	
0.1 to 6.0 units	\$596.00
Total Resident Fees Per Semester	
6.1 or more units	\$911.00

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).

Nonresident Students (U.S. and Foreign) Tuition

Non-Resident Tuition is charged to all U.S. non-California residents and Foreign students. Tuition is \$282.00 per unit, in addition to applicable State University and Other Mandatory Fees. (Tuition is subject to change by State Legislative action without notice.)

The total fee paid per term is determined by the total number of units taken, including those in excess of fifteen units. The total Non-Resident Tuition charged a student in an academic year will not exceed \$8,460.00 (Fall and Spring terms). Summer term is not part of the regular academic year.

No fees of any kind will be required of or collected from those individuals who qualify for such exemption under the provisions of the Alan Pattee Scholarship Act, AB540, or other applicable legislation.

Optional Fees (per semester)

The following represents rates for the Fall 2001 and Spring 2002 semesters and are subject to change.

Motorcycle and Moped Parking (per semester)	\$15.75
Automobile Parking (per semester)	\$63.00*
Replacement Parking Permit	Full Price

*The automobile parking fee will increase to \$98.00 per semester in the Spring 2005 semester.

Other Fees and Charges (non-refundable)

Late Registration	\$25.00
Application and Reapplication Fee	\$55.00
Diploma/Commencement Fee	\$30.00
Missed Deadline Fee	\$10.00
Dishonored Check Charge	\$20.00
(If the Dishonored Check was for payment of registration fees, the Late Registration Fee may also apply)	
Disputed Credit Card Charge	\$10.00
Complete transcript of record	\$4.00
Replacement of Student ID Card	\$5.00

REMINDER: Fees are Subject to Change Without Advance Notice

Payments

CSULB has instituted a new payment policy starting April 2003 for the Fall 2003 semester. Payment of registration and tuition fees is no longer required prior to registration of classes. 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 the Wednesday prior to the first day of instruction, whichever is earlier. 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 the Wednesday 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. They may also make a payment before registering (i.e. a deposit), if they choose.

Payment can be satisfied by cash, check, 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:

- Check
 - In person at the Cashiers Window, Brotman Hall 148
 - Mailed to the Cashiers, Brotman Hall 155, CSULB, 1250 Bellflower Blvd., Long Beach, CA 90840
- Cash
 - In person only at the Cashiers Window, Brotman Hall 148
- Credit Card
 - Self-Service over web
 - In person at the Cashiers Window, Brotman Hall 148
 - Mailed to the Cashiers, Brotman Hall 155, CSULB, 1250 Bellflower Blvd., Long Beach, CA 90840

Note: Telephone credit card payments are not accepted by the Cashiers. The CCAPS and U-ASK Kiosk systems no longer accept payments as they have been discontinued.

Payment of fees CANNOT be made if disputed credit card charges exist on your account.

Contact Student Account Services, Brotman Hall 155 for further information.

Credit Cards

Payment of student fees can be made by credit card (VISA or MASTERCARD only) at:

1. Self-Service – the web-based on-line system, available 23 hours a day.
2. Cashiers Window, Brotman Hall 148.
Hours are Monday – Thursday, 9:00AM to 7:00PM and Friday, 9:00AM to 5:00PM.
Note: Cashiers Window closes at 5:00PM during Spring Recess, Winter Recess and Summer Break.
3. Mail remittances to the Cashiers, Brotman Hall 155, CSULB, 1250 Bellflower Blvd., Long Beach, CA 90840

Short Term Loans

A limited number of short term loans to assist in paying for registration fees, books, or authorized emergencies are available to qualified students on a first come, first served basis. Information about this program is available at Brotman Hall 155, Student Account Services, or Brotman Hall 148, Cashiering Windows #8-10. Recorded Information is available by calling (562) 985-8258.

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 defer the administrative costs of the program. A 9% service charge is assessed to the deferred balance for non-resident tuition and international Visa students. An installment Plan Contract must be obtained from Student Account Service, Brotman Hall 155, or Brotman Hall 148, Cashiering Windows #8-10 before submitting payment.

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.

Refund of 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 fees and campus fees that are required to be paid in order to enroll in state-support academic programs at the California State University. Refunds of fees and tuition charges for self-supported programs at the California State University (courses offered through extended education) are governed by a separate policy established by the university.

In order to receive a full refund of mandatory fees, 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 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.

For state-supported semesters, quarters, and 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 prior to the first day in accordance with the university's established procedures and deadlines.

Students will also receive a refund of mandatory fees, including nonresident tuition under the following circumstances:

- The tuition and mandatory fees were assessed or collected in error;
- The course for which the tuition and mandatory fees were assessed or collected was cancelled by the university;
- 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 *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 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

Special Circumstances Refunds

There are two levels of financial appeals. They are as follows:

I. 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 based on the following:

1. Campus Variation
2. Compulsory Military Service
3. Death of Student
4. Fees Collected in Error

Further information regarding Special Circumstances Refunds may be obtained from the current semester's *Schedule of Classes* or by calling the Student Account Services Office at (562) 985-8280.

II. 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.

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 and will increase for inflation after 2001. 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 20% of the first \$5,000 of total annual educational expenses. This maximum will increase for inflation starting in 2003.

Education expenses that are paid with tax-free grants, scholarships, and employer-education assistance 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.
- An 800 phone Hot Line to assist you with your inquiries.
- The website is <http://www.tra97.com>

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 the Hot Line 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.

Parking Fee

Parking at CSULB is limited. Parking permits are required 24 hours a day, Monday through Friday, and the vehicle code is enforced at all times. Please contact the Parking Office (562) 985-4146 for additional information.

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 Financial Services, Window #10, 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 af-

fixed 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 Financial Services Services, BH 148 Window #10. There shall be no refund if such amount is less than \$5.

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.

Determination of Residence for Nonresident Tuition Purposes

The campus Office of Enrollment Services is responsible for determining the residence 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 residence 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, Sections 41900-41916. A copy of the statutes and regulations is available for inspection at the campus Admissions Office or can be viewed on the Internet by accessing the California State University's website at www.calstate.edu.

Legal residence 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 residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. 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, 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. The 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. 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. Effective January 1, 1994, this exception continues until the military personnel has resided in the state the minimum time necessary to become a resident.
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 the 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 the state the minimum time necessary to become a 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 the 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.

A campus residence classification appeal must be in writing and submitted to The California State University, Office of General Counsel, 401 Golden Shore, 4th Floor, Long Beach, California 90802-4210, within 120 calendar days of notification of the final campus decision. 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 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, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the Admissions Office. Applications for a change in classification with respect to a previous term are not accepted.

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 may submit a form and supporting documents from October 1 to November 1 for Spring semester, and from April 1 to May 1 for the Fall and semesters.

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.

Fees and Debts Owed 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, *California Code of Regulations*, Sections 42380 and 42381).

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 receive official transcripts of grades or other services offered by the institution from anyone owing fees or another debt to the institution. If a person believes he or she does not owe all or part of an asserted unpaid obligation, that person may contact the Student Account Services Office. The Student Account Services Office, or another office on campus to which the Student Account Services 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 Obligations and Holds

Other 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 – Student Financial Services. BH 148, Window #10, or call Student Account Services at (562) 985-8280.

- EPT, ELM and WPE – For information, refer to your *Schedule of Classes*. For further information, contact the Testing and Evaluation Services (562) 985-4006
- Perkins Loans – Business Office, BH 155, (562) 985-5348
- Measles – Student Health Services, (562) 985-4771
- VISA hold (Foreign Clearance) – Center for International Education, BH 201, (562) 985-4106

Dishonored Checks

Students paying fees by personal check 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 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 the Student Financial Services Window #10 (BH 148), or call 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 \$10.00 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.

FINANCIAL ASSISTANCE

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 2002-2003 CSULB budgets.)

Student living at home with parents (nine month term)	\$8,758
Student living in a residence hall (nine month term)	\$10,980
Single student living off-campus (apartment, house nine month term, assumes shared housing)	\$14,140

Availability of Institutional and Financial Assistance Information

The following information concerning student financial assistance may be obtained from Financial Aid, BH Bldg., Rm. 101, (562) 985-2500:

1. student financial assistance programs, including state grants, available to students who enroll at CSULB;
2. the procedures and forms by which application for student financial assistance is made;
3. the student eligibility requirements for financial assistance and the criteria used in determining how financial assistance is distributed among eligible applicants who enroll at California State University, Long Beach; and
4. the rights and responsibilities of students receiving financial assistance including aid provided under federal Title IV student assistance programs.

Information concerning the cost of attending California State University, Long Beach is available from the Office of Financial Aid, BH Bldg., Rm. 101, (562) 985-2500, and includes fees and tuition (where applicable); the estimated costs of books and supplies; estimates of typical student room and board costs and typical commuting 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 Bldg., Rm. 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 Bldg., Rm. 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.

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 funds made available by the federal and state governments, CSU and by private sources that are awarded to students who demonstrate a need to cover educational expenses.

Due to limited funding, deadlines are critical. Students financial aid files must be complete before financial need can be determined. To receive maximum funding, students must file a Free Application for Federal Student Aid (FAFSA) by March 2.

Application

To apply for financial aid from CSULB, students must file the Free Application for Federal Student Aid (FAFSA). The FAFSA is a multi-purpose form that also is used to apply for California Grants from the California Student Aid Commission and for Pell Grant funds from the federal government. The FAFSA must be mailed to a nationally designated processor. New students may obtain the FAFSA from high school counselors or local college financial aid offices. Students currently enrolled at CSULB may pick up the FAFSA from the Office of Financial Aid. Detailed information about CSULB financial aid programs is available in the Office of Financial Aid, BH Bldg., Room 101, (562) 985-2500. The submission of various supportive documents may be required. These may include the following: (1) verification of all taxable and nontaxable income reported on the FAFSA; and (2) 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 is automatically considered for all programs for which he/she qualifies at the University by submitting the FAFSA, and appropriate supporting documents. All loan, grant and work programs are available for the academic year.

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.

Although enrollment is assumed to be full-time, part-time students are eligible to receive aid if they carry a minimum of six undergraduate units, or four graduate level units.

Notification of Awards

Upon determination of eligibility, students are sent 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:

1. be in good academic standing;
2. make satisfactory academic progress toward a degree by earning credit for units attempted each semester; and
3. remain within the maximum time frame for the degree program in which the student is enrolled.

Aid eligibility is governed by the number of units attempted and successfully completed with a passing grade ("D" or better). Most aid recipients enroll in a full-time program of study carrying 12 undergraduate units or 9 graduate level units (500-level courses or higher) per semester. To be considered an eligible financial aid applicant, students cannot have earned more academic units than an established "unit cap." At CSULB, the established unit cap for students seeking a bachelor's degree is 170 units and for master's degree candidates the unit cap is 50 units. This includes units earned as a recipient of financial aid as well as units earned while not receiving aid. It also includes any transferable units for those students who have attended college elsewhere.

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 with exceptional financial need.

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 are placed in jobs according to their skills, career and academic goals and must see the Office of Financial Aid for job referral. Positions are available on campus or with organizations off campus.

Educational Opportunity Program Grants

EOP grants are provided by the State of California for undergraduate students admitted to one of The California State University campuses under the Educational Opportunity Program. Eligibility is determined by the same need criteria as federal financial aid programs. Students also receive special academic counseling and tutorial assistance when needed. Further information may be obtained by contacting the Educational Opportunity Program Office on campus.

State University Grant

The State University Grant is funded by the State of California to assist students whose ability to attend postsecondary institutions is jeopardized by increases in student fees. Students must be residents of California and must demonstrate financial need.

Graduate Equity Fellowship

The Graduate Equity Fellowship is funded by the California State University to graduate students underrepresented in their field of study. These groups are currently defined as: individuals with disabilities; women majoring in academic areas in which women are underrepresented; African Americans, Hispanics, American Indians, Filipinos and Pacific Islanders. Applicants must be California residents, demonstrate financial need of at least \$1000, and be accepted into or continuing in a full-time graduate program with at least a 3.0 grade-point average. Approximately 40 recipients are selected annually depending upon fund availability.

University Scholarships

The Office of Financial Aid administers a limited number of small scholarships funded by CSULB. Other scholarships are funded by private donors, businesses, corporations, agencies, religious groups, and fraternal and civic organizations. Most scholarships are not based solely on financial need. They may be awarded on the basis of academic achievement, leadership, merit, motivations, and talent. Some scholarships are administered directly by the academic department for specific academic majors. Students may consult with their academic department or the Office of Financial Aid regarding scholarships available.

President's Scholars Program — Four Years

High school valedictorians may be eligible. Includes registration fees, housing, and book allowance – up to \$24,000 for four years.

National Merit Scholarship finalists may also be eligible. Includes registration fees, housing, food, and book allowance – up to \$34,000 for four years.

Applications are available from your high school counselor. For more information contact Valerie Bordeaux in the CSULB Office of University Outreach and School Relations at (562) 985-5358.

Outside Student Aid Programs

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

Cal Grant A

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 and financial need. Grants are for fees only.

Cal Grant B

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 educa-

tional costs. Fees, in addition to the basic award, are normally provided in the second, third, and fourth years. The grant is renewable for four years.

Cal Grant T

Cal Grant T is awarded by the California Student Aid Commission to students who have graduated from college, are California residents and are enrolled in a professional teacher preparation program. Cal Grant T awards are based on academic achievement and financial need. Grants are for one year of fees only.

Prior to receiving the funds, students must sign a Teaching Service Agreement to teach for a minimum of one year in a California public elementary or secondary school.

Federal Pell Grant Program

The Pell Grant Program is a federal aid program designed to provide financial assistance to undergraduate students who demonstrate financial need under the guidelines of the program. 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 cost of education at the school attended and enrollment on a half-time, three-quarter-time, or full-time basis. Eligibility is limited to U.S. citizens and eligible non-citizens.

Federal Stafford Loan (GSL)

The Stafford Loan Program enables eligible students to obtain loans through banks, credit unions, and other lending institutions outside of the University. 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. An unsubsidized Federal Stafford Loan is not based on financial need. Once funds are disbursed, the student is responsible for interest due on the loan while in school. The Parent Loan is available to parents of dependent undergraduate students. The parent's credit history is a determinant for participation in this program.

Information, brochures, advising, and application forms are available from BH 101, or phone (562) 985-2500.

Federal regulations allow any student to apply for the Federal Stafford Loan providing 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; and 3) is a citizen of the United States or an eligible non-citizen. Local lender policy is available from the Office of Financial Aid.

Fee Waivers

The California Education Code includes provisions for the waiver of mandatory systemwide fees as follows: 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 (referred to as Alan Pattee Scholarships);

Section 66025.3 – Qualifying children, spouses, or unmarried surviving spouses of a war period veteran of the U.S. military who is totally service-connected disabled or who died as a result of service-related causes; children of any veteran of the U.S. military who has a service-connected disability, was killed in action, or died of a service-connected

disability and meets specified income provisions; qualifying dependents of a member of the California National Guard who in the line of duty and in active service of the state was killed or became permanently disabled or died of a disability as a result of an event while in active service of the state; and undergraduate students who are the recipient of or the child of a recipient of a Congressional Medal of Honor and meet age and income restrictions; and

Section 68121 – Student 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 must have been 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.

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.

Other Types of Financial Assistance

Cooperative Education (Co-Op)

The Cooperative Education Office places students in career or academic related positions with corporations, businesses, agencies and institutions. Students are paid at normal entry-level wages. Minimum periods of employment for full-time Cooperative Education placements are one semester. For part-time placements, a minimum of 20 hours is required. Summer internships are also available. Contact the Experiential Learning Center, BH 250.

Student Part-Time Employment

Listings are available and assistance is offered in the Career Development Center to students interested in part-time employment.

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.

FILM AND ELECTRONIC ARTS

College of the Arts

Department Chair
Sharyn Blumenthal

Department Office
University Telecommunications Center (UTC), Room 104

Telephone
(562) 985-5404

Faculty

Professors
Sharyn Blumenthal
Robert G. Finney (Emeritus, 2000)
Micheal C. Pounds
Jose Sanchez-H.

Assistant Professor
Michael Berlin
Rory Kelly
Brian Alan Lane

Undergraduate Advisor
Jose Sanchez-H.

Administrative Coordinator
Karen Burman

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Film and Electronic Arts is an innovative academic program which emphasizes both professional education and liberal arts, both theory and practice. Focusing upon the integration of media and the arts in our information society, as well as upon the impact of technology on our culture and the media themselves, the curriculum is designed to assist the student major in becoming more future-oriented while developing a sound foundation in the arts and the humanities.

The faculty includes a diversity of expertise and interests which cross traditional media lines, resulting in ongoing discussion and experimentation while integrating the traditional audio, film, and video production modes. Theory and aesthetics are taught as an integral part of the development of communication and production skills. Part-time lecturers include a variety of highly-qualified Los Angeles area media professionals.

Admission Under Impaction

Applications to the major in Film and Electronic Arts exceed the number that can be accommodated by the Department's facilities and resources; therefore, this program has been designated Impacted by the California State University.

Requirements

1. Completion of a minimum of 56 semester units of college-level course work including all 12 units of General Education Foundation and at least 18 units of General Education courses with a cumulative GPA of 3.0 or higher; and
2. Completion of ART 110 (Introduction to the Visual Arts) or AH 115C (Foundation Art History III) (or equivalent).
3. International student applicants must complete the Test of English as a Foreign Language with a score of 550 or higher. Priority admission will be given to legal residents of the State of California.

Transfer students must apply to the University during the initial filing periods for fall or spring semesters.

Currently enrolled students who meet the requirements listed above must submit an Admission to the Upper-Division Major form to the Film and Electronic Arts Department by February 1 for the fall semester or October 1 for the spring semester.

Supplemental Screening Criteria

1. During the first semester as a declared major, students must complete FEA 399 with a grade of "B" or higher. Students receiving a "C" in FEA 399 are allowed to retake the course once for purposes only of admission into the major. The "C" grade will remain in effect and no credit will be gained by taking the course twice. It will allow the student, however, to have a second chance for admission into the major if he/she is able to obtain a "B" or higher on the second try. A student receiving a "D", "F", or "U" in FEA 399 the first time will no longer be eligible for admission to the major, but will be allowed to repeat/delete that grade per university policy.

2. Students must also successfully complete the CSULB Writing Proficiency Examination (WPE) requirement by the end of the semester in which FEA 399 is completed.

Students who fail to meet either of the supplemental screening criteria may not continue in the major and may re-apply only once in accordance with University policy regarding impacted majors.

Bachelor of Arts Film and Electronic Arts

Two B.A. degree options are offered by the department: one in Film and Electronic Media and one in Film and Video Production. All students are initially admitted to the Option in Film and Electronic Media. Students may apply for admission to the B.A. degree Option in Film and Video Production after completing FEA 309. Admission to the production option is highly competitive and will be based on the quality of a creative portfolio submitted by the applicant.

Option in Film and Electronic Media (code FEA_BA01) (120 units)

Students must complete all requirements, pre-requisites, and electives in residence at the upper division level.

Requirements

1. Major screening course: FEA 399 with a "B" or better
2. Media Studies Core: FEA 301 and 300 or FEA 302 and 305, FEA 313 or 314
3. Media Practice Core (choose 2 courses from one of the following tracks for a total of 6 units):
 - A. *Film/Video/Audio*: FEA 303, and FEA 307 or 309
 - B. *Management*: FEA 327, 373, 376, 420
 - C. *Writing*: FEA 303, 304, 404, 408(Students interested in the B.A. Option in Film and Video Production can apply after completing FEA 309. Admission is by portfolio application.)
4. Culture, Media, and Politics (choose 3): FEA 310, 317, 318I, 380, 394, 412, 486I
5. International Media (choose 3): FEA 363, 364, 392A, 392B, 392C, 392D; only one of the following may be used to meet this requirement: FEA 454/ITAL 454, FEA 456/FREN 456, RUSS 428, SPAN 428
6. Electives: This requirement can be met with a sequence of elective courses in FEA. With prior advisor approval, certain non-FEA courses may be counted toward this requirement.
7. Senior Theory Course (choose 1): FEA 401, 402 or 430

Option in Film and Video Production (code FEA_BA02) (120 units)

The Option in Film and Video Production involves a separate and competitive admission process. FEA majors may apply for the Film and Video Production Option only once after successfully completing FEA 309. A student who receives a "D", "F", or "U" is allowed to repeat/delete the grade per university policy, but that student is no longer eligible to apply to the Production Option regardless of the grade achieved on the second attempt.

Students admitted to the Option in Film and Video Production who fail to maintain a GPA of at least 3.0 in the major will

revert to their former status in the Option in Film and Electronic Media. No probationary period is recognized.

The requirements for admission to the option are as follows:

- 1) Grade of "B" or better in FEA 309; 2) Submission of a creative portfolio consisting of one film or video produced in FEA 309; 3) A completed application form; and 4) A statement by the student outlining academic goals or career objectives. Admissions decisions, based on a review of these application requirements and materials, will be made by a committee of full-time faculty members. The department is committed to diversity and encourages women and minority students to apply.

All students admitted to the Option in Film and Video Production are required to abide by the rules and regulations as specified in the FEA Department's *Policies and Procedures* handbook, which is available for purchase at the University Bookstore.

Requirements

- 1A. Major screening Course: FEA 399 with a "B" or better
- 1B. Film and Video Production Option Screening Course: FEA 309 (requires major status)

Note: Students submit creative portfolio and application materials for admission to the Option in F/V Production after completing this course.
2. Media Studies Core: FEA 301 and 300 or FEA 302 and 305, FEA 313 or 314
3. Advanced Film/Video Production: FEA 304, 336, 328, 340, 341, 342, 343
4. Culture, Media, and Politics (choose 2): FEA 310, 317, 318I, 380, 394, 412, 486I
5. International Media (choose 2): FEA 363, 364, 392A, 392B, 392C, 392D; only one of the following may be used to meet this requirement: FEA 454/ITAL 454, FEA 456/FREN 456, RUSS 428, SPAN 428
6. Production Electives (choose 4): FEA 303, 307, 320, 327, 344, 382, 404, 405, 408, 415, 492
7. Senior Theory Course (choose 1): FEA 401 or 402

Courses (FEA)

Upper Division

300. History of Electronic Media (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. The development of electronic media in the United States. Letter grade only (A-F).

301. Electronic Media: Theory and Culture (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Study of electronic media and their role in the information society. Consideration of mass communication theories and dimensions of electronic media today, including the traditional media of radio, television and cable. Emphasis upon new media technologies and their potential impact upon media and society in the future. Letter grade only (A-F).

302. Critical Study of Film (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Introduction to classical and critical theories of film analysis including Realism, Formalism, Classical Hollywood Cinema, Auteur Theory, the Art Film, and Structuralism. Letter grade only (A-F).

303. Film and Electronic Media Writing (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Study of scripting and other writing skills unique to audio, video, and film. (Lecture-Discussion 3 hours) Letter grade only (A-F).

304. Writing the Short Script (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. For students in the Option in Film and Video Production must be taken concurrently with FEA 336. Scriptwriting with emphasis on adaptation and dramatic fiction. Letter grade only (A-F).

305. Film History (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Historical development of the motion picture. Letter grade only (A-F).

307. Audio Production (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Basic principles and techniques of audio production. (Act 4 hrs to be arr.) Letter grade only (A-F).

309. Film/Video Production (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Basic principles and techniques of film/video production. (Act 4 hrs to be arr.) Letter grade only (A-F).

310. Film and Culture (3)

Prerequisite: Completion of 13-unit General Education Foundation requirement. An exploration of the ways films create, pattern, shape, reinforce, and/or change culture. A variety of viewpoints, derived from contemporary critical and cultural studies, highlight the relationship between a culture and its images.

312. Television Programing Symposium (3)

Discussion and analysis of creative problems in the television industry. Current local and network programs. Interviews with visiting executives, producers, directors, writers, performers and technicians. May be repeated once. Only 3 units may be used as credit toward major.

313. New Technologies in Film and Electronic Media (3)

Prerequisites: FEA 300 and 301, or 302 and 305, or consent of instructor. Study of developing technologies in film and electronic media production, distribution, and exhibition. Focus on economic, social, and policy issues raised by technological innovation and the impact of new technology on the industry. Letter grade only (A-F).

314. Theatrical Film Symposium (3)

Lectures and discussions of creative problems in the motion picture industry; current films; interviews with visiting producers, directors, writers, performers and technicians. May be repeated once. Only three units may be used toward the major.

316. Mass Media and Society (3)

Prerequisite: Completion of 13-unit General Education Foundation requirement. Theory and functions of the mass media in America. Enduring issues and unresolved problems of the media. Impact of mass culture on a mass-mediated society. G. E. credit only. Does not count toward units in the major.

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 W/ST 316.

318I. Theory of Fiction and Film (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Examination of the narrative methods and conventions of American and British fiction and the methods and conventions of film; consideration of the relationships between the artistic structure of fiction and film; study of theoretical and practical approaches to fiction and film. Same course as ENGL 318I.

320. Sound Design (3)

Prerequisites: Major status. Examination of the basic aesthetic and technical principles of sound design for film and video production.

325. Audio Activity (2)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Experience in administering and programing the University radio station. (Activity hours to be arranged.) Course may be repeated for a maximum of 4 units. Credit/No Credit grading only.

327. Production Management (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Examination of the step-by-step process of budgeting and scheduling feature length motion pictures. Students will learn methods and procedures of breaking down a script, analyzing production elements, preparing a production board, scheduling principal photography, and preparing a comprehensive budget. (Lecture 3 hours; activity hours to be arranged.) Letter grade only (A-F).

328. Film and Video Lighting (3)

Prerequisites: FEA 309 with a grade of "B" or better. Priority enrollment given to students in Film/Video Production Option. Examination of the basic aesthetic and technical principles of film and video lighting. Students will explore various creative lighting styles and techniques through lectures and practical exercises. 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. (Activity hours to be arranged.) May be repeated once for a maximum of 4 units. Credit/No Credit grading only.

336. Intermediate Film/Video Production (3)

Prerequisites: Admission to Option in Film/Video Production, concurrent enrollment in FEA 304. Preparation for the advanced level of film and video production through research and exercises designed to develop essential filmmaking and videographic skills. (Production laboratory 9 hours.) Letter grade only (A-F). Miscellaneous course fee.

340. Advanced Film/Video Production (3)

Prerequisites: FEA 328, 336, and concurrent enrollment in FEA 341. Experience in the group production of original films and videos. Emphasis is on narrative short films and videos resulting in public performance. (Production laboratory 9 hours.) Course may be repeated to a maximum of 6 units, but second enrollment must follow completion of the production sequence (III) in the Option in Film and Video Production. Letter grade only (A-F). Miscellaneous course fee.

341. Advanced Cinematography I (3)

Prerequisites: FEA 328, 336, concurrent enrollment in FEA 340. This course is designed to further the student's understanding of the art and craft of cinematography and to enhance the effectiveness of visual storytelling in their advanced film and video projects. Emphasis is on production cinematography, lighting, composition, lenses, film stocks, filters, telecine and lab procedures. Letter grade only (A-F).

342. Advanced Film/Video Production II (3)

Prerequisites: FEA 340, concurrent enrollment in FEA 343. Experience in the group production of original films and videos. Emphasis is on narrative short films and videos resulting in public performance. (Production laboratory 9 hours.) Course may be repeated to a maximum of 6 units, but second enrollment must follow completion of the production sequence (III) in the Option in Film and Video Production. Letter grade only (A-F). Miscellaneous course fee.

343. Advanced Cinematography II (3)

Prerequisites: FEA 340, 341, concurrent enrollment in FEA 342. This course is designed to further the students' understanding of the art and craft of cinematography and to enhance the effectiveness of visual storytelling in their advanced film and video projects. Emphasis is on post-production cinematography including printing, opticals, video mastering, and video-to-film transfers. Letter grade only (A-F).

344. Directing (3)

Prerequisites: FEA 309 or consent of instructor. Theory and practical experience in the directing of narrative film. Emphasis on directing actors in fictional work. (Activity hours to be arranged.)

355. Audio-Video-Film Activity (1)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, 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. (Activity hours to be arranged.) May be repeated once, for a maximum of 2 units. Credit/No Credit grading only.

363. International Electronic Media Systems (3)

Prerequisites: FEA 301 or 302 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 the potential impact of new technologies. Letter grade only (A-F).

364. Global Electronic Media Communication (3)

Prerequisites: FEA 301 or 302 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 such cross border communication in the future. Letter grade only (A-F).

373. Electronic Media Programming (3)

Prerequisites: FEA 300 and 301, or 302 and 305, or consent of instructor. Principles and practices of programming for electronic media networks, television and radio stations, and local cable systems. Analysis of the relationship between programming, promotion, and profit. Letter grade only (A-F).

376. Film and Electronic Media Sales and Promotion (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of WPE, or consent of instructor. Study of marketing, promotion, and sales among film distributors, production companies, program suppliers, broadcast networks, cable systems, local radio, television, and cable operators. Theory and application of media research principles, promotion strategies. Development of selling skills. Letter grade only (A-F).

380. Documentary History and Theory (3)

Prerequisites: FEA 302 and 305 completed or consent of instructor. A critical study of the history, methods, and aesthetics of documentary media production. A specific focus on problems of representation, objectivity, and personal style in both theory and practice. Course fee required. Letter grade only (A-F).

382. Documentary Digital Video Production (3)

Prerequisites: FEA 309 with a grade of "B" or better and FEA 380 (may be taken concurrently). Theory and practice of directing, shooting, and editing video documentaries and experimental video using digital video and post-production technology. Letter grade only (A-F).

392. International Cinema (3)

Prerequisites: FEA 302 and 305 completed or consent of instructor. Variable topics course which explores the domain of international cinema. Course may be repeated for a maximum of 6 units with different topics. Topics will be announced in the *Schedule of Classes*. Course fee required. Letter grade only (A-F).

A. European Cinema 1930-1960

B. European Cinema 1960-1990

C. Latin American Cinema

D. Japanese Cinema

394. American Film Genres (3)

Prerequisites: FEA 302 and 305 completed or consent of instructor. Historical and critical examination of Hollywood film genres. Places genre analysis and theory within a sociocultural perspective including issues of gender and ethnicity. Genres to be covered include the Western, film noir, science fiction/horror, detective/gangster, the musical, war films, screwball comedy, and family melodrama. May be repeated for a max. of 6 units with different topics. Letter grade only (A-F).

399. Media Aesthetics (3)

Prerequisite: Major status. Study of aesthetic principles governing media productions. Emphasis on relationships between various art forms and development of critical vocabulary. Students must achieve a grade of "B" or better in order to maintain status as a major. Students receiving a "C" in FEA 399 may retake the course once for purposes only of admission into the major. The "C" grade will remain in effect and no credit will be gained by taking the course twice. It will allow the student, however, to have a second chance for admission into the major if he/she is able to obtain a "B" or higher on the second try. This policy applies retroactively to Fall 2000 to students who have taken the course once and received a "C". A student receiving a "D", "F", or "U" in FEA 399 the first time is not eligible for admission to the major, but will be allowed to re-peat/delete that grade per university policy. Letter grade only (A-F).

401./501. Film Critical Theory (3)

Prerequisites: FEA 302 and 406/506 completed and an additional six units in film studies or consent of instructor. Letter grade only (A-F). Study of contemporary theoretical models of film analysis and evaluation. Topics include: Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Postcolonialism, Queer Theory, and Post-modernism. Course fee required. Letter grade only (A-F).

402. TV Critical Theory (3)

Prerequisites: FEA 300, 301, and 6 additional units in the major. Examines television from an aesthetic and textual perspective. Specific interests include the distinctive ways that television produces its meanings, as well as the ways that critical analysis differs from quantitative mass communications approaches. Topics to be covered include semiotics, postmodernism, and feminism, as well as narrative, ideological, and psychoanalytic theories of criticism. Letter grade only (A-F).

404. Advanced Scriptwriting for Film and Electronic Media (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, or consent of instructor. Writing dramatic and comedic screenplays and teleplays. Includes study of produced models with emphasis on the creative process. Course may be repeated for a maximum of 6 units. Letter grade only (A-F).

405./505. Comedy Writing (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" 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).

408/508. Writing the Screen Adaptation (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, approval of the MFA (Screenwriting) Coordinators and Full Classified Status in the MFA (Screenwriting) Degree Program or Conditional of Classified Status or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. Writing script adaptations, with a study of adaptation theory and successful adaptational models. Letter grade only (A-F). Course may be repeated to a maximum of 6 units. Same course as ENGL 408.

412./512. American Television and African-Americans (3)

Prerequisites: Major status, FEA 399 with a "B" or better and successful completion of the WPE, or consent of instructor. Letter grade only (A-F). Comparative examination of the depiction of African Americans in American network and syndicated television in a variety of types of programs. Letter grade only (A-F).

415. Electronic Editing (3)

Prerequisite: FEA 309 or consent of instructor. Principles of non-linear editing in post-production. Letter grade only (A-F).

420. Electronic Media: Labor and Management (3)

Prerequisites: Major status, FEA 399 with "B" or better and successful completion of the WPE, and at least 12 units completed in the major, or consent of instructor. Study of management and labor in the changing field of telecommunications, with emphasis upon the manager's roles and functions in the labor intensive cable, film, radio, television and related industries. Letter grade only (A-F).

430. Government Media Policy and Politics (3)

Prerequisites: FEA 300, 301, and 6 additional units in the major. Current issues, policies, and regulations affecting the cable, film, radio, television industries, including the impact of new technologies. Letter grade only (A-F).

454. Italian Cinema (3)

Historical and critical examination of Italian cinema. Letter grade only (A-F). Same course as ITAL 454.

456. French Cinema (3)

Historical and critical examination of French cinema. Letter grade only (A-F). Same course as FREN 456.

486I. Alternative Media (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Critical study of censorship and suppression of information in mainstream media by governmental and corporate entities. Focus on the importance of freedom of information and access to diverse viewpoints. Students select and research environmental, multicultural, peace, and other issues utilizing alternative media.

490./590. Special Topics in Film and Electronic Arts (3)

Major status or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. Topics of current interest in radio-television-film selected for intensive development. Course may be repeated to a maximum of 9 units with different topics; only 6 units may be applied toward the B.A. Topics will be announced in the *Schedule of Classes*. Letter grade only (A-F).

492. Internship (3)

Prerequisites: Senior standing in major or consent of instructor. Students intern with cooperating media facilities. Course may be repeated for a maximum of 6 units. Credit/No Credit grading only.

498./598. Advanced Seminar (3)

Prerequisites: FEA 399 with a "B" or better and successful completion of the WPE, and senior standing in the FEA major, or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. 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 399 with a "B" or better and successful completion of the WPE, or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, 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.

Graduate Level

501./401. Film Critical Theory (3)

Prerequisites: FEA 302 and 406/506 completed and an additional six units in film studies or consent of instructor. Study of contemporary theoretical models of film analysis and evaluation. Topics include: Structuralism, Feminism, Psychoanalytic Theory, Narratology, Cultural Studies, Postcolonialism, Queer Theory, and Postmodernism. Letter grade only (A-F).

505./405. Comedy Writing (3)

Prerequisites: FEA 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" 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 303 or 304 with a "B" or better, or ENGL 405 or 407 with a "B" or better, approval of the MFA (Screenwriting) Coordinators and Full Classified Status in the MFA (Screenwriting)

ing) Degree Program or Conditional of Classified Status or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. Writing script adaptations, with a study of adaptation theory and successful adaptational models. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

512./412. American Television and African Americans (3)

Prerequisites: Major status, FEA 399 with a "B" or better and successful completion of the WPE, or consent of instructor. Comparative examination of the depiction of African Americans in American network and syndicated television in a variety of types of programs. Letter grade only (A-F).

590./490 Special Topics in Film and Electronic Arts (3)

Prerequisites: Major status or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. Topics of current interest in film and electronic arts selected for intensive development. May be repeated for a maximum of 9 units with different topics. Only 6 units may be applied toward the B.A. Topics will be announced in the *Schedule of Classes*. Letter grade only (A-F).

598./498 Advanced Seminar (3)

Prerequisites: FEA 399 with a "B" or better and successful completion of the WPE, and senior standing in the FEA major, or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, or consent of instructor. Intensive study of significant issues in film and electronic arts. Letter grade only (A-F).

599./499. Special Projects in Film and Electronic Arts (3)

Prerequisites: Major status, FEA 399 with a "B" or better and successful completion of the WPE, or Conditional Classified Status in the MFA (Screenwriting) Degree Program or Conditional Classified or Full Status in the MFA (Creative Writing) Degree Program, 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. Advanced Seminar in Screenwriting (3)

Open to students in MFA in Creative Writing, with consent of instructor. Advanced seminar and intensive workshop in creative writing, reading, criticism, media history, and aesthetics. From a thematic basis, the course covers prose, poetry, and all formats and genres of omnimedia, leading students from text-for-print creativity to text-for-performance and screen/film/video art. Letter grade only (A-F).

604B. Advanced Seminar in Screenwriting (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. Advanced Seminar in Screenwriting. (3)

Prerequisites: FEA 604A and FEA 604B, or consent of instructor. Advanced workshop in intensive and practical creative writing for collaborative media. A long-form screenplay is developed and drafted to completion by the 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. Advanced Seminar in Screenwriting (3)

Prerequisites: FEA 604A, FEA 604B, and 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. The course leads students to completion of their Thesis Project Proposals. Letter grade only (A-F).

FINANCE, REAL ESTATE, AND LAW

College of Business Administration

Department Chair

L. R. Runyon

Department Office

College of Business Administration (CBA) 420

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Faculty

Professors

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David E. Pastrana

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Thomas J. Rhoads

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Associate Professors

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Kathleen Lacey

Yulong Ma

Jasmine Yur-Austin

Assistant Professor

Peter Ammermann

Alex Wilson

Administrative Support Coordinator

Janie Daly

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For all degree requirements see Business Administration.

Courses (FIN)

Lower Division

220. Introduction to Law and Business Transactions (3)

Introduction to law and the American legal system in today's business world. Special emphasis is given to contracts, sales, and commercial paper. An 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.

Upper Division

300. Business Finance (3)

Prerequisite: IS 310 can be taken concurrently. An introductory course for all business majors, integrating computer applications and management information systems in the following areas of finance: (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 including; Mergers, Bankruptcy, and International Finance.

309I. The Consumer in the Legal and Economic Environment (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses; upper-division standing. Combines the economic and ethical components of consumer issues with a

critical analysis of relevant substantive aspects of consumer law. Incorporates an integrated coverage of the economic, legal 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. Same as FCS 309I and ECON 309I. (Lecture-Discussion 3 hours.)

310. Personal Finance (3)

Financial analysis planning and management for the individual. Topics include owning and financing a home, minimizing taxes, investing – goals and strategies, budgeting to match income and expenses, developing a savings plan, controlling expenses and credit usage, determining life, health, home and auto insurance needs, planning retirement.

320. Legal and Regulatory Environment of Business (3)

Prerequisite: FIN 220. An examination of the forms of business organizations, employment law, securities law, environmental law, anti-trust issues, and international transactions. A consideration of the social, cultural and economic influences on domestic and multinational corporations. Exploration of the relationship of government to business. Introduction to business ethics.

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.

340. Real Estate Principles (3)

Overview of real estate markets, institutions and activities from the perspective of the decision makers involved in real estate development, financing and equity investment. The fundamental physical, legal, regulatory, economic, mathematical and taxation considerations influencing real estate decision and values are investigated. The real estate decision support areas of brokerage, property management, appraisal and counseling are examined.

350. Investment Principles (3)

Prerequisite: FIN 300. Investment markets and transactions; sources of investment information and advice; 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 in the above areas, including accessing various databases available to the investor.

360. Capital Markets (3)

Prerequisite: FIN 300. Capital formation, rates, markets and institutions. Flow of fund analysis, intermediation, interest rate structures, risks and liquidity. Management of financial institutions.

400. Financial Management (3)

Prerequisites: FIN 300 and ACCT 310 or 320. An intermediate level course in financial management integrating computer applications and management information systems into the area of financial functions and decisions. The course is primarily a case study and requires use of the computer and appropriate software. The main areas of concentration are: cash budgeting, capital budgeting, business combinations and mergers, cost of capital, and international finance.

424. International Legal Environment of Business (3)

Prerequisite: FIN 320. Study of the global environment in which international managers and investors function. Topics will include the form in which international businesses operate, such as subsidiaries and joint ventures, along with a discussion of how business operations are affected by treaties, and by the laws and policies of the several governments involved. Also, included are resolution of business and investment disputes, protection of property rights, the financing and taxing of international operations, and ethical responsibility issues. Letter grade only (A-F).

425. Legal Aspects of Real Estate (3)

Prerequisite: FIN 340. Basic principles of law of real estate as related to conveyances, titles, private and public restrictions on the use

of land, escrows, community property and financial transactions.

450. Security Analysis (3)

Prerequisite: FIN 350. Use of 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. A review of the various microcomputer software programs available to perform all aspects of security analysis and portfolio management, including accessing and utilization of the numerous databases available to the investment analyst.

480. Derivatives and Futures Markets (3)

Prerequisites: FIN 300 and 350. The study of futures markets includes an analysis of the exchanges, the operation of member firms, the mechanics of trading, the construction of a personal-risk profile analysis and the discussion of traditional decision variables, including the construction of a 2-asset portfolio. Included is a solid theoretical examination of the question of bias in futures prices, the theory of the price of storage, ledger and speculator behavior, and the stochastic nature of the futures prices. Letter grade only (A-F).

490. International Finance (3)

Prerequisite: FIN 300; suggested, CBA 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.

495. Selected Topics (1-3)

Prerequisite: Consent of instructor. Topics of current interest in finance selected for intensive study. May be repeated for a maximum of 6 units. Topics will be announced in the *Schedule of Classes*.

497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, on Dean's List and 3.0 GPA or higher in finance. Individual projects, study and research of advanced nature in finance.

499A-B. Applied Portfolio Management (3-3)

Prerequisites: FIN 499A: FIN 350, 400, 450 (either or both FIN 400 and 450 may be taken concurrently), and consent of instructor and Department Chair; FIN 499B: FIN 499A and consent of instructor and Department Chair. FIN 499A to be offered in Fall and accepted students must enroll in FIN 499B in Spring. Participation in the management of an actual investment portfolio. Research, monitor, and analyze securities and make buy and sell recommendations for a student-managed investment fund utilizing state-of-the-art computer software and on-line information data retrieval services. Contribute to the publication of a semi-annual report of the activities of the fund. Market, sector and firm analysis with individual and group presentations and outside research required. Letter grade only (A-F).

Graduate Prerequisite Course

520. Legal, Regulatory, and Ethical Environment of Business (3)

Prerequisite: MBA standing required. Analysis of the legal and regulatory environment in which managers must operate. Review of the constitutional and judicial structures for resolving disputes, the effect of governmental and political policies, and the liability encountered by business in various defined areas of substantive law. Special attention is given to ethical issues faced by business in the domestic and global marketplace. Letter grade only (A-F).

Graduate Level

501. Financial Management Concepts (3)

Prerequisite: MBA standing required. Financial theory, management and environment of the firm integrating computer applications, management information systems and cases to the following areas of finance: (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; and (6) special topics including mergers, bankruptcy, and international finance. Letter grade only (A-F).

524. International Legal Environment of Business (3)

Prerequisite: FIN 520. A study of the international legal environment in which multinational firms operate. Selected topics include treaties and laws, government policies, resolution of legal disputes, regulation of competition, enforcement of property rights and issues involving ethical responsibilities. Letter grade only (A-F).

525. Estate Planning (3)

Prerequisite: FIN 520. Planning and administration of the disposition of property by wills, estates and trusts including use of life insurance, impact of federal and state taxes and special trust provisions and devices.

600. Seminar in Business Finance (3)

Prerequisite: MBA standing required. 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 including mergers, bankruptcy, international finance. Course may be repeated to a maximum of 3 units. Letter grade only (A-F).

620. Capital Budgeting (3)

Prerequisite: 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 are required for this course. Letter grade only (A-F).

624. Cyberlaw (3)

Coverage of foundation of e-commerce and public policy issues; study of the interaction of law with the globalized e-commerce environment; critical analysis of the legal, ethical, international and political aspects of technology as it relates to business; examination of issues of jurisdiction, intellectual property, electronic payment systems and contracting, online securities offerings, telecommunications mergers and acquisitions, privacy, security, and cybercrime. Letter grade only (A-F).

630. Seminar in Financial Forecasting (3)

Prerequisite: FIN 600. Research projects in industry, individual company, product and commodity areas. Computer applications are required in this course. Letter grade only (A-F).

650. Seminar in Investments (3)

Prerequisite: FIN 600. Selected problems in 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 are required for this course. Letter grade only (A-F).

690. Seminar in International Finance (3)

Prerequisite: FIN 600. Background in economics, accounting and finance, graduate standing in business administration. Covers real and monetary factors in the finance of international business, international capital markets, movement of funds and special problem areas.

695. Selected Topics (3)

Prerequisite: Consent of instructor. Topics to be announced in the *Schedule of Classes*. Topics change each offering. Course may be repeated for a maximum of 6 units with different topics. Letter grade only (A-F).

697. Directed Studies (1-3)

Prerequisite: Consent of instructor. Individual study under the direction of the faculty.

699A-B. Applied Portfolio Management (3-3)

Prerequisites: FIN 699A: FIN 520, 600, 650 and consent of instructor and Department Chair; FIN 699B: FIN 699A and consent of instructor and Department Chair. FIN 699A will be offered in Fall and accepted students must enroll in FIN 699B in Spring. Participation in the management of an actual investment portfolio. Research, monitor, and analyze securities and make buy and sell recommendations for a student-managed investment fund utilizing state-of-the-art computer software and on-line information data retrieval services. Contribute to the publication of a semi-annual report of the activities of the fund. Market, sector and firm analysis with individual and group presentations and outside research required. Letter grade only (A-F).



GENERAL EDUCATION

General Education is an important aspect of the baccalaureate degree and of your personal development. It is the part of your university program which encourages you to develop or improve such basic life skills as self-motivation, independence, creativity, critical thinking, an understanding of values, and a general philosophy by which to make decisions throughout life. Possession of these skills makes possible continued personal growth and the further development of your creative and adaptive capabilities. It is the basis for lifelong learning, and it can increase your ability to be self-directing.

At California State University, Long Beach, courses approved for General Education credit provide:

- Information: the raw material for thinking, analysis, reflection, and discourse;
- Basic Skills: the ability to analyze ideas and data, to relate these to other materials, to develop arguments both logical and cogent, to reach conclusions, and to present the results of these processes with clarity and style;
- Methods of inquiry: direction and practice in methodologies of the several disciplines;
- Qualities of Mind: a respect for data and unpleasant facts; tolerance, commitment, a taste for learning; an appreciation of the arts; creativity, perpetual curiosity, and a sensitivity to ethical considerations.

The present policy of the Board of Trustees of The California State University is that students graduating from a CSU campus must fulfill certain breadth requirements (Section 40405, Title 5, California Code of Regulations). Of these, a minimum of 9 semester units must be upper-division general education courses taken at the campus conferring the degree. Partial credit may be transferred from another institution; a participating, regionally-accredited institution may certify completion of 39 lower-division semester units.

Each campus in the CSU system may define which of its courses satisfy its General Education requirements and determine which courses are transferable from other institutions (except where a maximum of 39 units are certified). The campus may add requirements and enact other regulations.

Beginning in the 1996-97 academic year, CSULB inaugurated a series of Odyssey theme years. Each involves the campus in a year-long series of major speakers, video conferences, performances, films, events, field trips, and classes (across campus and in the community) focused on a single intellectual issue of importance to our time. Please see the end of this section for a listing of courses with theme-year content.

General Education Requirements

Each California State University, Long Beach, baccalaureate graduate must complete at least 51 semester units of General Education courses. Only courses specifically approved for General Education and so listed in the *Schedule of Classes* may be used to fulfill General Education require-

ments. At least three units of the 51 General Education units must be instruction which focuses on global issues or world societies and cultures (Global Issues Courses). At least three units of the 51 General Education units must be instruction which focuses on instructive examples of human diversity (Human Diversity Courses). At least nine of the 51 General Education units must be upper-division units taken at CSULB and after you achieve upper-division standing (completion of 60 semester units). The 51 units of General Education course work include three units of work in U.S. History and three units in U.S. Constitution and American Ideals, required by Section 40404, Title 5, California Code of Regulations. (See Category D. below). Title 5 provides that each student shall demonstrate competence by completing a course in these fields or by passing a comprehensive examination in them. These examinations are provided by the Departments of History and Political Science, respectively.

No course in your major department may be used to satisfy G.E. requirements with these exceptions: all courses in Category A, Category B.1.a for life science majors, Category B.2 for mathematics majors, Category C.1 and C.3 for art and music majors, Category D.1.a for history majors, Category D.1.b for political science majors, all interdisciplinary courses (I), and human diversity courses (HD, identified with " " in the *Schedule of Classes*) for all majors. A cross-categorized Interdisciplinary Course may be counted (at the student's option) in any one of the approved categories, but not in more than one.

Upper-division transfer students entering CSULB under the 1998-1999 catalog or any earlier catalog may take two interdisciplinary courses (I) and any other upper-division course approved for General Education in lieu of the Capstone requirement listed below.

Engineering and Technology students have special GE requirements. They have to satisfy a theme by taking two upper-division I courses within that theme. For details, see the College of Engineering section of this catalog.

GE Requirements for Continuing and Transfer Students Under the 1998-1999 and Earlier Catalogs

Nine of your 51 General Education units must be upper division and taken after you complete 60 units. Six of the 9 upper division units must be interdisciplinary courses (I). These 9 units must be completed at CSULB.

Interdisciplinary Courses are required as a part of your General Education breadth requirements. You must complete six units of courses with the "I" suffix in any of the categories specified. These units must be completed before graduation.

You must take one 3-unit Human Diversity course (denoted with a " " in the *Schedule of Classes*) before graduation. These courses occur in several categories at the lower- and upper-division levels. This is a requirement for students under the 1993-94 and subsequent *Catalogs*.

New GE Requirements for Freshmen Enrolling at CSULB in 1999-2000 or Later or Transferring to CSULB Under These Catalogs

First Year: Foundation

The first year at CSULB is designed to devote special attention to the development and improvement of fundamental academic skills that are critical to student success in college. Every CSULB student will be expected to demonstrate mastery of key academic skills early in their course of study, ideally within the first year. Among the skills most central to success are communication in English, both written and oral, mathematical concepts and quantitative reasoning, and analytical and critical thinking. Students also need a solid foundation in skills for learning, including the ability to read for information, information retrieval skills, the use of the library, and basic computer skills. In addition, all first-year students will receive an introduction to the University. Finally, the University is committed to fostering the development of communities of learners, and it will provide to all incoming students opportunities for the formation of learning communities.

The Foundation curriculum consists of twelve units of general education courses that meet the distribution requirements in Categories A and B2, and one unit of University 100. The following courses make up the Foundation:

- University 100 (1 unit), "The University." This course is a graduation requirement for students entering as lower-division students. It is coordinated pedagogically with the skills and content of the first-year curriculum. It introduces students to the history of universities (including the history, mission, and character of CSULB) and current issues in higher education. It introduces students to the use of our academic research library and also introduces them to the skills essential for success in an academic environment.
- One 3-unit course in written composition in English.
- One 3-unit course in oral communications.
- One 3-unit course in mathematical concepts and quantitative reasoning.
- One 3-unit course in critical thinking.

The courses listed above must all be completed with a grade of at least "C". Where appropriate exams exist, Foundation requirements may be met by advanced placement.

The 13-unit Foundation curriculum must be completed by the time a student has completed 36 units, except that lower-division transfer students have at least one semester in residence to complete the requirements.

Courses in the Foundation curriculum are numbered from 100 to 199. All other General Education courses have pre- or co-requisites from the Foundation curriculum, and all General Education courses numbered 200 or higher have the entire Foundation curriculum as prerequisites. General Education courses numbered between 100 and 199 may appropriately be taken at the same time as courses in the Foundation curriculum.

Explorations

After an early focus on fundamental learning and academic skills, students will have an opportunity to explore human knowledge in many disciplines. The Explorations stage encompasses all areas outside the Foundation curriculum, except the final nine units of General Education, described under "Capstone."

Although the primary purpose of Explorations is the development of breadth of knowledge, all courses offer opportunities for continued development of foundational skills. Reading, writing, oral discussion and presentation, problem solving and/or quantitative reasoning, and critically- and analytically-based research are central to the learning of content.

In addition, as students progress through their Explorations, they are expected to develop additional skills and attributes, including ethical reasoning, analytical reading, creativity, respect for difference, awareness of other cultures, questioning of stereotypes, the values of citizenship, negotiating skills, and other attributes of use in a diverse society.

Global Issues

Students are required to complete at least three units of coursework from any category devoted to the study of global issues or world societies and cultures (identified with a "G" in the *Schedule of Classes*).

Capstone

The final nine General Education units form the Capstone. The purpose of the Capstone is to bring the strands of the General Education experience into focus, to reinforce knowledge and skills acquired from many areas, and to incorporate depth in the form of more sophisticated tools and analysis, if not necessarily in terms of content knowledge. For transfer students, the Capstone may offer an opportunity to connect to the campus in a learning community outside of the major department.

Capstone General Education courses are at the upper-division level. These courses have the entire Foundation curriculum as a prerequisite, along with one or more prerequisites from the Explorations stage. Upper-division standing is also required. All Capstone courses are designed to develop advanced college skills, including synthesis and application of knowledge, analysis, critique, and research.

All students, including transfer students who have completed a certified lower-division General Education program, must complete 9 units of Capstone classes and must do so at CSULB.

Capstone classes are classified as Interdisciplinary (identified with the letter "I" in the *Schedule of Classes*), Advanced Skills (identified with the letter "A"), Service Learning (identified with the letter "S"), or Linked (identified with the letter "L"). Students are permitted to count no more than one Advanced Skills class and one Service Learning class toward the 9-unit Capstone requirement.

Distribution Requirement

General Education units must be distributed as follows:

Category A

Communication in the English Language and Critical Thinking — 9 units to include:

1. One approved course in written English;
2. One approved course in oral communication or a combination of oral and written communication, to include an understanding of the process of communication and experience in communication;
3. One approved course in critical thinking, designed to develop the ability to reason clearly and logically and to analyze the thinking of others.

Category B

Physical Universe — 12 units to include:

1. At least six units of inquiry into the physical universe and its life forms to include one approved course in the life sciences and one approved course in the physical sciences; both must involve laboratory experience;
2. At least three units of study in mathematical concepts and quantitative reasoning; approved courses foster an understanding of mathematical concepts rather than merely providing instruction in basic computational skills;
3. Another three units as necessary, selected from approved courses, to achieve a minimum of 12 units.

Category C

Humanities and the Arts — 12 units to include:

1. At least three units from approved fine arts courses;
2. At least six units from approved courses to include courses in at least two of the following areas:
 - a. literature
 - b. philosophy, and
 - c. foreign languages.
3. Another three units as necessary, selected from approved courses to achieve a minimum of 12 units.

Category D

Social and Behavioral Sciences and Their Historical Backgrounds — 15 units to include:

1. Citizenship:
 - a. Three units selected from courses in U.S. History;
 - b. Three units selected from courses in U.S. Constitution and Ideals, including state and local government (formerly Category F).
2. Additional Social and Behavioral Sciences
Complete at least 9 units from the following courses in at least two disciplines. Students under the 1985 and 1993 GE patterns must complete at least 3 units from the following courses designated as a Global Issues course (I). All courses with a I in this category meet the category D.2.a. requirement for students following the 1985 and 1993 GE patterns.

Category E

Self-Integration — 3 units:

At least three units selected from approved courses which facilitate understanding of the human being as an integrated physiological, psychological, and social organism.

Cross categorized courses may count in only one category, not both.

The following General Education courses are approved for the fall semester only. There may be some changes in the spring semester. Please consult the Spring *Schedule of Classes* for the updated list.

Dept.	Course #	Course Title	Category
AIS	105	Amer Indian History Pre 1871	D2
AIS	106	Amer Indian History Post 1871	D2
AIS	319	U.S. Ethnic Experience	D2
AIS	340	American Indian Literature	C2a
ANTH	110	Intro to Physical Anthropology	B3
ANTH	120●	Intro to Cultural Anthropology	D2
ANTH	140	Intro to Archaeology	D2
ANTH	150	Elements Of Human Integration	E
ANTH	170	Intro to Linguistics	D2
ANTH	305I▲	Radical Social Analysis	D2
ANTH	307I▲●	Modernization	D2
ANTH	311I▲	Human Adventure	D2
ANTH	313	Peoples of the World: Prehistory	D2
ANTH	314●	Peoples of the World: Ethnography	D2
ANTH	315	Human Variation	E
ANTH	329	Cultural Diversity in California	D2
ANTH	353	Health & Healing	E
ANTH	412I▲●	Culture & Communication	D2
ARAB	101A	Standard Modern Arabic I	C2c
ARAB	101B	Standard Modern Arabic II	C2c
ART	100	Perceptual Skill Through Drawing	C1
ART	110	Intro to the Visual Arts	C1
AH	113A	Survey of Eastern Art	C1
AH	113B	Survey of Eastern Art	C1
AH	115B	Foundation Art History II	C1
AH	115C	Foundation Art History III	C1
AH	330I▲●	Cross Cultural Visual Literacy	C1 or D2
ASAM	100	Language Skills	A1
ASAM	200	Asian American Inter-Ethnic Relations	D2
ASAM	220	Asian American History	D2
ASAM	221	Contemporary Issues in Asian America	D2
ASAM	260	Intro to Asian American Literature	C2a
ASAM	319	U.S. Ethnic Experience	D2
ASAM	335I▲	Asian & Latino Immigration Since WWII	D2
ASAM	370	Gender & Sexuality in Asian America	E
ASAM	380	Asian Philosophy & Religion in America	C2b
ASAM	403	Asian American & Chicano & Latino Cinema	C1
A/ST	190	Tao Reasoning	A3
A/ST	300I▲●	Traditional Asia	C3 or D2
A/ST	301I▲●	Modern Asia	D2
A/ST	310I	U.S. and Asia	D2
A/ST	393I▲●	Japan's Heritage	C3 or D2
A/ST	495I▲●	China Heritage	C3 or D2
ASTR	100	Astronomy	B1b or B3
ASTR	100L	Intro to Astronomy Lab	B1b
ASTR	370I▲	Planetary Environments	B3
BIOL	100	Biology of Human Environment	B3
BIOL	153	Intro to Marine Biology	B1a
BIOL	200	General Biology	B1a
BIOL	200L	General Biology Laboratory	B1a
BIOL	205	Human Biology	B1a
BIOL	207	Human Physiology	B1a
BIOL	211A	Biological Sciences I	B1a
BIOL	211C	Biological Sciences Laboratory I	B1a
BIOL	309I▲	Human Body & Mind	E
B/ST	100	Language Skills	A1
B/ST	110	Intro to Black Studies	D2
B/ST	120	Afro-American History to 1865	D2
B/ST	121	Afro-American History 1865 to Present	D2

B/ST	140	Intro to African-American Literature	C2a	C/LT	124●	Intro to World Theatre & Drama	C3
B/ST	155	Afro-American Music	C1	C/LT	161	Reading The World	A3
B/ST	160	Intro to Black Arts	C1	C/LT	232	Folklore & Mythology	C2a
B/ST	170A	Elementary Swahili	C2c	C/LT	234	Intro to East Asian Literature	C2a
B/ST	170B	Elementary Swahili	C2c	C/LT	236	Intro to Southeast Asian Literature	C2a
B/ST	200●	Ancient African Civilizations	D2	C/LT	250	European Literature & Other Arts I	C1
B/ST	201	History of Slavery	D2	C/LT	251	European Literature & Other Arts II	C1
B/ST	205	Modern Black South African Literature	C2a	C/LT	310▲	Greek World	C2a or D2
B/ST	304	African Colonial Experience	D2	C/LT	312▲	Roman World	C2a or D2
B/ST	319	U.S. Ethnic Experience	D2	C/LT	320▲●	Comic Spirit	C2a
B/ST	332	Civil Rights & the Law	D2	C/LT	324▲	Theatre Today	C1
B/ST	337	Cultures of Pan-African Peoples	D2	C/LT	342	The Bible as Literature	C2a
B/ST	343	African & Caribbean Literature	C3	C/LT	350	Global Literature in American Culture	C2a or C3
B/ST	346	Black Theatre	C2a	C/LT	412▲	Art & Literature	C1 or C2a
B/ST	353I●▲	Black Religion	C3	C/LT	414▲	Medieval World	C3 or D2
B/ST	363	History of African Art	C1	C/LT	415I ▲	Ethnic Literature & Culture in America	C2a
B/ST	400	Afro-American Social Thought	D2	C/LT	422▲	Renaissance Theatre & Drama	C2a
B/ST	410	The Black Family	E	C/LT	451▲	Film & Novel	C3
B/ST	430●	African Political Leadership in 20th Century	D2	CRIM	101	Criminal Justice System in Society	D2
B/ST	498I●▲	Ancient Egyptian Ethical Thought	C2b	DANC	101	Introduction to Modern Dance	C1
CHEM	100	Chemistry & Today's World	B1b	DANC	102	Introduction to Ballet	C1
CHEM	111A	General Chemistry	B1b	DANC	110	Viewing Dance	C1
CHEM	202	Survey of General & Organic Chemistry	B3	DANC	373I▲	Nonverbal Communication	C1 or D2 or E
CHEM	302	Survey of Biochemistry	B1b	DANC	435I▲	Dance in Film	C1
CHLS	101	Intro to Chicano Life	D2	DESN	367	History & Theory of Architecture	C1
CHLS	104	Bilingual Communication Skills-English	A1	DESN	368	History & Theory of Design	C1
CHLS	105	Identity & Assimilation in Chicano Life	D2	DESN	370	Design in Contemporary Society	C1
CHLS	150	Intro to Chicano Literary Studies	C2a	ECON	100	Principles of Macroeconomics	D2
CHLS	300	Chicano History	D2	ECON	101	Principles of Microeconomics	D2
CHLS	319	U.S. Ethnic Experience	D2	ECON	300	Fundamentals of Economics	D2
CHLS	335I ▲	Asian & Latino Immigration Since WWII	D2	ECON	306I▲●	Environmental Issues of the World Economy	D2
CHLS	350	Latino Population in the U.S.	D2	ECON	309I▲	Consumer in Legal and Economic Environments	D2 or E
CHLS	390I▲	Hispanic Southwest: Historic & Literary Images	D2	ECON	360I▲	American Economic History	D2
CHLS	403	Asian American & Chicano & Latino Cinema	C1	ECON	361I▲●	European Economic History	D2
CHLS	450I▲●	Consequences of the Encounter: The Americas, Europe, & Africa	C2a or D2	ECON	365●	Economy of Modern China	D2
CHLS	470I▲	Latina/OS Health Status & Health Care Access	D2 or E	ECON	368●	Comparative Economic Systems	D2
CHIN	101	Fundamentals of Chinese	C2c	ECON	369●	East/Central European Economies	D2
CHIN	102	Fundamentals of Chinese	C2c	ECON	370●	Pacific Rim Economy	D2
CHIN	201	Intermediate Chinese	C2c	ED P	191	Career & Personal Exploration	E
CHIN	202	Intermediate Chinese	C2c	ED P	357	Self Management	E
CHIN	370	Chinese Literature in English Translation	C2a	ED P	360I▲	Life & Career Decisions	D2 or E
CLSC	110	Classical Archaeology	D2	ED P	373I▲	Nonverbal Communication	C1 or D2 or E
CLSC	124	Classical World of Greece and Rome	C2a	ENGR	302I▲●	Energy & Environment: A Global Perspective	B3 or D2
CLSC	135	Women in the Classical World	C2a	ENGR	340▲	Guitar Electronics: Engineering Sound	B3
CLSC	191	Greek Mythology	C3	ENGR	370I▲●	Astronautics Space	B3
CLSC	310I▲	Pagan Culture	C2a or C2b	ENGR	375I▲	Total Quality & Continuous Improvement	D2 or E
CLSC	410I▲	Law & Literature in the Classical World	C2a or C2b	ENGL	100	Composition	A1
CLSC	421I▲	Classical Drama	C2a	ENGL	102	Critical Reading & Writing	A3
C/LA	314I▲●	Intro to Contemporary Europe	D2	ENGL	180	Appreciation of Literature	C2a
C/LA	315I▲●	Contemporary European Society	D2	ENGL	205	Intro to Creative Writing-Fiction	C1
COMM	110	Interpersonal Communication	A2	ENGL	206	Intro to Creative Writing-Poetry	C1
COMM	130	Essential Public Speaking	A2	ENGL	250A	Survey of English Literature	C2a
COMM	131	Argumentation	A3	ENGL	250B	Survey of English Literature	C2a
COMM	131W	Argumentation Workshop	A3	ENGL	318I▲	Theory of Fiction & Film	C3
COMM	132	Small Group Discussion	A2	ENGL	363	Shakespeare I	C2a
COMM	171	Voice & Applied Speaking	A2	ENGL	370A	Survey of American Literature	C2a
COMM	300	Survey of Rhetorical Theory	C3	ENGL	370B	Survey of American Literature	C2a
COMM	331	Argumentation-Debate	A2	ENGL	372I▲	Comedy in the United States	C2a
COMM	335	Persuasive Speaking	A2	ENGL	375	Contemporary American Ethnic Writers	C2a
COMM	411▲	Communication in Conflict Mgmt	E	ENGL	382	Women and Literature	C2a
COMM	412	Gender & Communication	E	ENGL	385	The Short Story	C2a
COMM	441I▲	Freedom of Communication	A2	ENGL	386	Poetry	C2a
COMM	442I▲	Campaign Persuasion	C3	FCS	132	Intro to Nutrition	E
C D	330	Speech & Hearing Science	E	FCS	223	Personal & Family Management	E
C/LT	100	Intro to World Literature	C2a	FCS	251	Professional & Personal Apparel Selection	E
C/LT	101	Intro to Comparative Literature	C2a	FCS	309I▲	Consumer in Legal and Economic Environments	D2 or E
C/LT	103●	Intro to Comparative Asian Literature & Culture	C2a	FCS	312I▲	Family & Personal Development	D2 or E
				FCS	319I▲	Family Stress & Coping	D2 or E

FCS	321	Family & Consumer Resource Management	D2	HIST	308I▲	Law & Civilization	D2
FCS	450	Cultural Perspectives of Dress	D2	HIST	309I▲	Men & Masculinity	E
FEA	310	Film & Culture	C1	HIST	310I▲	Greek World	C2a or D2
FEA	316	Mass Media & Society	D2	HIST	312I▲	Roman World	C2a or D2
FEA	318I▲	Theory of Fiction & Film	C3	HIST	313	Ancient Greek	C3
FEA	486I▲	Alternative Media	C3	HIST	314	Roman History	D2
FIN	309I▲	Consumer in Legal and Economic Environments	D2 or E	HIST	337●	Europe-19th Century	D2
FREN	101A	Fundamentals of French	C2c	HIST	339●	Europe, 1890-1945	D2
FREN	101B	Fundamentals of French	C2c	HIST	341A●	Foundations of Russia	D2
FREN	201A	Intermediate French	C2c	HIST	341B●	Modern Russia	D2
FREN	201B	Intermediate French	C2c	HIST	362	Colonial Latin America	D2
GEOG	100●	World Regional Geography	D2	HIST	364●	Latin American Nations	D2
GEOG	100W●	World Regional Geography	D2	HIST	370	Chicano History	D2
GEOG	120	Geography of Human Diversity in U.S.	D2	HIST	371	Religion in American History	C2b or D2
GEOG	140	Intro to Physical Geography	B3	HIST	382A	Imperial China	D2
GEOG	150	Planet Earth: An Introduction	B3	HIST	382B	Modern China	D2
GEOG	160●	Intro to Human Geography	D2	HIST	383A	Japan to 1850	D2
GEOG	301I▲	The Urban Scene	D2	HIST	383B	Modern Japan	D2
GEOG	306	U.S. and Canada	D2	HIST	400I▲	History of Western Scientific Thought	D2 or B3
GEOG	307I▲●	Modernization	D2	HIST	404I▲	Social History of Musical Life	C3 or D2
GEOG	308I▲●	Africa South of the Sahara	D2	HIST	407I▲●	Japan & the U.S. in the 20th Century	C2a or D2
GEOG	309I▲●	Middle East & North Africa	D2	HIST	414I▲	Medieval World	C3 or D2
GEOG	313I▲●	Southeast Asia	D2	HIST	474I▲	Urbanization of Modern America	D2
GEOG	314I▲●	South Asia	D2	HIST	485A	Women in the U.S. - Early Period	D2
GEOG	315I▲●	East Asia	D2	HIST	485B	Women in the U.S. - Since 1850	D2
GEOG	316●	Europe	D2	HDEV	180	Lifespan Human Development	D2 or E
GEOG	320I▲●	Latin America	D2	HDEV	300I▲	Death & Dying	D2 or E
GEOG	326●	Pacific Island Area	D2	HDEV	307I▲	Human Development-Childhood	D2 or E
GEOL	102	General Geology	B1b or B3	HDEV	357I▲	Human Development -Adult	D2 or E
GEOL	104	Geology Laboratory	B1b	I/ST	317I▲●	Problems in International Social Conflict	D2
GEOL	105	Geology Field Lab	B1b	I/ST	318I▲●	Cases in International Social Conflict	D2
GEOL	160	Intro to Oceanography	B1b or B3	I/ST	319I▲●	International Development	D2
GEOL	160L	Intro to Oceanography Lab	B1b	ITAL	101A	Fundamentals of Italian	C2c
GEOL	163	Atmosphere & Weather	B3	ITAL	101B	Fundamentals of Italian	C2c
GEOL	190	Environmental Geology	B3	ITAL	201A	Intermediate Italian	C2c
GEOL	191	Air & Water Pollution	B3	ITAL	201B	Intermediate Italian	C2c
GEOL	300I▲●	Earth System & Global Change	B3	JAPN	101	Fundamentals of Japanese	C2c
GERM	101A	Fundamentals of German	C2c	JAPN	102	Fundamentals of Japanese	C2c
GERM	101B	Fundamentals of German	C2c	JAPN	201	Intermediate Japanese	C2c
GERM	201A	Intermediate German	C2c	JAPN	202	Intermediate Japanese	C2c
GERM	201B	Intermediate German	C2c	JAPN	370	Japanese Literature-English Translation	C2a
GERM	315	Survey of German Literature & Culture I	C2a	JOUR	110	Intro to Mass Communication	D2
GERM	316	Survey of German Literature & Culture II	C2a	JOUR	312I▲●	Global News Media	D2
GERM	380I▲	Contemporary German Society & Culture	C3 or D2	JOUR	315	Journalism as Literature	C2a
GERN	400I▲	Perspectives on Gerontology	D2 or E	KPE	156	Sports Appreciation	D2
GK	101A	Elementary Greek	C2c	KPE	157	Fitness for Living	E
GK	101B	Elementary Greek	C2c	KPE	332I▲	Sociocultural Dimensions of Sport & Human Movement	D2
HCA	202	Intro to Health Care Organization	D2	KPE	338I▲	Women in Sport	D2 or E
HCA	422I▲●	Global Issues in Health Service Administration	D2	KPE	339I▲	Psychology of Sports Behavior	D2 or E
HCA	470I▲	Latina/os Health Status & Health Care Administration	D2 or E	LAT	101A	Elementary Latin	C2c
H SC	210	Contemporary Health Problems	E	LAT	101B	Elementary Latin	C2c
H SC	420I▲●	International Health	D2 or E	LING	101●	Intro to World's Languages	D2
H SC	425I▲	Human Sexuality	E	LING	363I▲	Implications of Human Language	E
H SC	427	Drugs & Health	E	M S	101	U.S. Defense Establishment	D2
HIST	101	Facts Evidence & Explanation	A3	MATH	103	Mathematical Ideas	B2
HIST	131●	Early Western Civilization	D2	MATH	112	College Algebra	B2
HIST	132●	Modern Western Civilization	D2	MATH	114	Finite Math	B2
HIST	151	England: Earliest Times to 1688	D2	MATH	115	Calculus for Business	B2
HIST	152	Britain in Modern Times	D2	MATH	117	Precalculus Math	B2
HIST	162A	Comparative History U.S. & Latin America	D1a	MATH	119A	Survey of Calculus I	B2
HIST	162B	Comparative History U.S. & Latin America	D1a	MATH	122	Calculus I	B2
HIST	172	Early U.S. History	D1a	MATH	123	Calculus II	B2
HIST	173	Recent U.S. History	D1a	MTED	110	The Real Number Systems for Elementary & Middle School Teachers	B2
HIST	211●	World History: Origins to 1500	D2	MICR	101	Intro to Human Disease	B3
HIST	212●	The World Since 1500	D2	MICR	200	Gen Micro/ Health Professionals	B1a
HIST	300	U.S.-Past & Present	D1a	MICR	300I▲	Human Immunology	B3
HIST	303I▲	Rebels & Renegades	C3 or D2				

MICR	303	Public Health & Pollution	B3	PSY	346I▲	Human Sociobiology	D2
MUS	190	Listener's Approach to Music	C1	PSY	350I▲	Psychology & Contemporary Social Issues	D2
MUS	290	Pop Music in America	C1	PSY	351	Social Psychology	D2
MUS	363I▲	Music & The Visual Arts	C1	PSY	356	Personality	D2
MUS	364I▲	Music & The Temporal Arts	C1	PSY	361	Child & Adolescent Development	D2
MUS	393	Jazz-An American Music	C1	PSY	370	Abnormal Psychology	D2
MUS	468I▲	Music & Film	C1	PSY	375I▲	Community Psychology	D2
MUS	490●	Intro to Music Cultures	C1	REC	141	Introduction to Leisure Services	D2
NRSG	481I▲	Parenting	E	REC	220	Universality of Play	E
NSCI	308▲	Community & Careers in the Health Profession	E	REC	340I▲	Leisure in Contemporary Society	E
NSCI	309I▲	Women in Science	B3 or D2	R/ST	100	Intro to Religion	C3
NSCI	375I▲	Science and Society	B3	R/ST	103	Intro to World Religions-Eastern	C3
OCST	388I▲	Technological Literacy	E	R/ST	202	Religion & Society	C3
OCST	417I▲●	Technology, Ethics & Society	D2	R/ST	210	Intro to the Bible	C3
OCST	457I▲●	Working Around the World	D2	R/ST	212	Introduction to the Qur'an	C2b
PHIL	100	Intro to Philosophy	C2b	R/ST	301	Approaching Religion	C2b
PHIL	100W	Intro to Philosophy	C2b	R/ST	302I▲	American Religious Diversity	C2a or C2b
PHIL	160	Intro to Ethics	C2b	R/ST	308●	Comparative Religious Ethics	C2b
PHIL	160W	Intro to Ethics	C2b	R/ST	311	Religion & Lit in the Old Testament	C3
PHIL	170	Critical Reasoning	A3	R/ST	312I▲	Dead Sea Scrolls	C3 or D2
PHIL	203	History of Early Western Philosophy	C2b	R/ST	315I▲	Modern Jewish Thought - Zionism	C2b or D2
PHIL	204	History of Modern Western Philosophy	C2b	R/ST	322	New Testament & Early Christian Literature	C3
PHIL	306	Philosophy of China & Japan	C2b	R/ST	331I▲●	Islamic Religion & Culture	C2b
PHIL	307	Philosophy of India	C2b	R/ST	341I▲	Buddhism	C2b
PHIL	330	Philosophy of Religion	C2b	R/ST	343	Religions of China	C2b
PHIL	351	Political Philosophy	C2b	R/ST	344	Religions of Japan	C2b
PHIL	352	Philosophy of Law	C2b	R/ST	351	Hinduism	C2b
PHIL	361	Philosophy-Art & Beauty	C2b	R/ST	352●	Religions of India	C2b
PHIL	362I▲	Ethics & Computer Technology	C2b	R/ST	353I▲	Religions of Southeast Asia	C2b or D2
PHIL	381	Philosophy of Science	C2b	R/ST	362I▲	Religion & Psychology	C3 or D2
PHIL	401▲	Philosophy of Education	C2b	R/ST	375	Historical Jesus	C3
PHIL	403I▲	Medical Ethics	C2b	R/ST	376I▲	Christian Origins	C3
PHIL	405I▲	Philosophy of Literature	C2b	R/ST	383I▲●	Christianity & Global Ethics	C2b or D2
PHIL	451I▲	Liberty & Justice	C2b	R/ST	391I▲	Religion & Science	C2b
PHIL	452I▲	Law Philosophy & the Humanities	C2b	R/ST	425I▲	Religion & Modern Literature	C3
PHIL	461I▲	Diversity in Criticism & Analysis of the Arts	C2b	R/ST	471I▲	Early Christianity	C3 or D2
PHSC	112	Intro to Physical Science	B1b	R/ST	472I▲	Formation of Modern Christianity	C2b or D2
PHSC	331	Light Lasers & Visual Image	B3	R/ST	482I▲	American Religious Experience	C2b or D2
PHYS	100A	General Physics	B1b	R/ST	485	Contemporary Religious Thought	C2b
PHYS	100B	General Physics	B1b	RGR	346I▲●	The European Cinema of Communism, Fascism & Resistance.	C2a or D2
PHYS	151	Mechanics & Heat	B1b				
PHYS	152	Electricity & Magnetism	B1b	RGR	450I▲●	Consequences of the Encounter	C2a or D2
POSC	100	Intro to American Government	D1b	RUSS	101A	Fundamentals of Russian	C2c
POSC	201	Intro to Political Science	D2	RUSS	101B	Fundamentals of Russian	C2c
POSC	210	Issues of American Politics	D2	RUSS	201A	Intermediate Russian	C2c
POSC	215●	Issues of Comparative Politics	D2	RUSS	201B	Intermediate Russian	C2c
POSC	220●	Issues in Global Politics	D2	RUSS	310	Russian Literature in English	C3
POSC	225	Issues in Political Theory	D2	RUSS	410I▲	Russian Civilization	C3
POSC	301	Classical Political Theory	D2	S W	220	Intro to Social Welfare	D2
POSC	321	The Media & American Politics	D2	S W	330	Birth through Adolescence	E
POSC	322	Political Parties	D2	S W	331	Young Adulthood through Old Age	E
POSC	323	Racial & Ethnic Politics - U.S.	D2	S W	350	Social Policy-Law & Court	D2
POSC	328	Intro to Public Policy	D2	S W	351	Policy Analysis	D2
POSC	353●	Govt & Politics of Western Europe	D2	S W	491	Non-Violent Conflict Resolution	D2
POSC	371●	Intro to International Politics	D2	SOC	100	Principles of Sociology	D2
POSC	388I▲●	Cyberspace Citizenship	D2	SOC	142	Social Trends & Problems	D2
POSC	391	American Government	D1b	SOC	317I▲●	Problems in Int'l Social Conflict	D2
POSC	395I▲	Politics Through Culture	D2	SOC	318I▲●	Cases in Int'l Social Conflict	D2
POSC	412	Law & Social Change	D2	SOC	335I▲	Social Psychology	D2
POSC	461I▲●	Politics of Development	D2	SOC	340	Latino Population in the U.S.	D2
POSC	482●	American Foreign Policy	D2	SOC	346	Race, Gender & Class	D2
POSC	494I▲●	Politics of the Future	D2	SOC	350●	International Population Problems	D2
PSY	100	General Psychology	D2	SOC	372I▲	Living in Space	D2
PSY	130	Critical Thinking	A3	SOC	374I▲	Solar System Habitation	D2
PSY	141	Psychobiology	B3	SOC	376I▲	Interstellar Migration	D2
PSY	150	Personality & Social Behavior	E	SOC	410I▲	Social Ecology	D2
PSY	300I▲	Mind Control or Freedom	D2	SOC	441I▲	Criminology	D2
PSY	339I▲	Psychology of Sport Behavior	D2 or E	SOC	449I▲	Sociology of Political Rights	D2

SOC	461▲	Alcohol & Society	E
SOC	462	Medical Sociology	E
SOC	466●	Aids & Society	D2 or E
SPAN	101B	Fundamentals of Spanish	C2c
SPAN	201A	Intermediate Spanish	C2c
SPAN	201B	Intermediate Spanish	C2c
SPAN	250	Spanish for Bilingual	C2c
THEA	113	Intro to Acting	C1
THEA	122	Appreciation of Theatre Arts	C1
THEA	324▲	Western Theatre Today	C1
THEA	425▲	Theatre and Cinema	C1
THEA	427▲	Dramatic Construction	C1
UHP	100	Angles of Vision	A3
UHP	150	Exploring a Text	E
U/ST	301▲	The Urban Scene	D2

UNIV 300▲ and 301▲ are approved General Education courses. Specific GE categories were not known at the time of publication. See *Schedule of Classes*.

W/ST	101	Women & Their Bodies	E
W/ST	102	Women in Contemporary Society	D2
W/ST	307I ▲	U.S. Women & the Economy, Money, Sex, & Power	D2
W/ST	309I▲	Women in Science	B3 or D2
W/ST	318I ▲	U.S. Women of Color	C2a
W/ST	319	U.S. Ethnic Experience	D2
W/ST	338I ▲	Women in Sport	D2 or E
W/ST	365I▲	Women & Pop Culture	C3 or D2
W/ST	382	Women & Literature	C2a
W/ST	401I▲●	Women in Global Perspective	D2
W/ST	424●	Ecofeminism	D2
W/ST	485A	History of Women in the U.S. - Early Period	D2
W/ST	485B	History of Women in the U.S. - Since 1850	D2

() Denotes course which meets Human Diversity requirement (catalog years 1993-1994 and later)

(●) Courses that meet the Global Issues requirement (catalog years 1999-2000 and later)

(▲) Courses that meet the Capstone requirement (catalog years 1999-2000 and later)

GEOGRAPHY

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Students desiring information should contact the department office for referral to one of the faculty advisors.

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Undergraduate Advisor

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Geography integrates information from many social and natural sciences by focusing upon human activities within the context of their physical and cultural environment. Because of the diversity of subject matter which it considers, geography offers a broad, liberal education which is applicable to many careers. These include elementary, secondary, and college teaching; cartography; geographic information systems (GIS); computer mapping; regional, urban and environmental planning; business; government, travel and tourism, and the foreign service.

The Geography Department offers the Bachelor of Arts and Master of Arts degrees, as well as a minor. Certain geography courses are applicable to teaching credential programs; to the degree in liberal studies; and to certificate programs in environmental, liberal, urban, Asian, Latin American, and Russian and East European studies, and cartography and GIS.

Students may obtain materials from the department describing the geography programs and courses recommended for career preparation.

The Master of Arts degree in geography is designed for those wishing to expand their geographic competence beyond that expected of the bachelor's degree. The Master of Arts degree in geography is becoming a common requirement for employment advancement and it provides the preparation necessary for success in geography Ph.D. programs at other universities. Candidates are responsible for observing the general requirements stated in this Catalog as well as the specific departmental requirements contained in the Geography Master of Arts Handbook.

Bachelor of Arts in Geography (code GEOGBA01) (120 units)

Requirements

The Geography major requires 48 units of which at least 9 units must be lower division and at least 36 units must be upper division.

Lower Division: 9 units required: GEOG 140 or 150, 160, and 200.

Upper Division: 36 units as follows:

1. Regional courses: 6 units required, only one course marked * may be used for the regional requirement: GEOG 304*, 306*, 308I, 309I, 313I, 314I, 315I, 316, 318, 320I; and 326.

2. Systematic courses: 15 units required, **must include at least one of these systematics: GEOG 440**, 442**, 444**, 352, 381, 446, 455, 452, 458, 460, 465, 466, 467, 470;

3. Methods and Techniques courses: 9 units required which must include GEOG 380 and 6 units from: GEOG 400, 402, 482, 473, 474, 475A, 475B, 475C, 484, 485, 486, 488.

Electives: 9 units required, at least 6 units of which must be upper division GEOG courses or U/ST 301I.

Recommendation: Courses should be selected in consultation with the undergraduate advisor for the purpose of planning career objectives. * At the time of enrollment in 494 or 497 the student must obtain written departmental notification whether the course will meet systematic or methods and techniques or regional requirements for the major.

Minor in Geography (code GEOGUM01)

The Minor in Geography is available to any non-Geography major. A minimum of 21 units consisting of GEOG 380 and 18 units chosen in consultation with the undergraduate advisor. At least 12 units must be in upper division.

Certificate in Cartography and Geographic Information Systems (code GEOGCT01)

Director

Franklin Gossette

Associate Directors

Judith Tyner

Christopher Lee

Suzanne Wechsler

This program offers specialized training in a variety of theoretical and applied cartographic techniques. The program is designed to provide experience in communication through maps and serves as a supplement to standard degree programs. It provides essential training for those seeking map making careers in both the public and private sector.

Requirements

1. A Bachelor's Degree, which may be earned concurrently.
2. Consultation with the Director of the program.
3. 30 units distributed as follows:
 - A. Courses marked with an * are required;
 - B. At least one elective must be taken from each category;
 - C. Courses marked with ** are not available to undergraduate students.

Design and Presentation: GEOG 482*, 484*

Analysis: GEOG 200 (or equivalent)*, 380*, 400, 473*, 485*, MATH 101 (or equivalent), 117.

Methods/Applications: GEOG 486, 488*, 492, 680**, CE 225, MAE 172.

Certificate in Urban and Regional Studies (code GEOGCT02)

The Urban and Regional Studies Program administered in the Department of Geography offers training in a variety of significant urban problem areas. The certificate program is designed to provide exposure to the analysis of urban problems and serves as an excellent supplement to standard degree programs. It offers essential training for those seeking both private sector and public sector careers in fields concerned with the urban region, its development, problems, and special communities.

Because urban problems cut across such a variety of disciplines, the program is characterized by an interdisciplinary approach. This is accomplished within the certificate curriculum by allowing students to draw together in a distinctive mix related courses from a variety of other departments. The result is a program that provides essential knowledge of the dynamics of urban regions. This approach assures a common core of essential knowledge, while allowing flexibility to each student in designing an individualized program of study using electives drawn from a variety of relevant disciplinary concentrations. The Certificate Program in Urban and Regional Studies is a 24-unit course of study comprised of 9 units of core requirements and 15 elective units.

A brochure describing the Urban and Regional Studies Certificate Program in greater detail is available in the Geography Department Office.

Requirements

1. A bachelor's degree;
2. Consultation with the undergraduate advisor of the Geography department;
3. Twenty-four units distributed as follows:

Core requirements: U/ST 3011, GEOG 466 and 467.

Elective Courses: 15 units to be selected from the following: ANTH 416; ASAM 345; B/ST 335, 452; DESN 367; ECON 300; FIN 340; GEOG 452; HIST 469, 474I; FCS 322, 422, 428; CHLS 350 (same as SOC 340); POSC 327, 442, 447 or 448; PSY 375; C/LA 319 (same as AIS 319, AMST 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319); SOC 340 (same as CHLS 350), 410I; U/ST 446; W/ST 432.

Master of Arts in Geography (code GEOGMA01)

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 statistics course;
5. An undergraduate GPA of 3.0 (B) or better in geography, or alternative evidence of ability to do graduate work;
6. File with the department a declaration of intent to seek the master's degree in geography.

Advancement to Candidacy

1. See the Geography Graduate Study Handbook;
2. See the general University requirements;

Requirements

1. Completion of courses required to remove foundational and prerequisite deficiencies;
2. Passage of the Writing Proficiency Examination;
3. Completion of 30 units of approved upper division and graduate courses. A minimum of 24 units of Geography courses. If not already taken for undergraduate credit, a Cartography course (GEOG 482 and 485/585 qualify) and a Field Methods course (GEOG 486 qualifies). A minimum of 18 units of 500- and 600-level courses, which must include GEOG 596, 2 seminars and 6 units of thesis (GEOG 698).

Grouping of Geography Courses

The CSULB Geography Department encourages geography students to acquire a knowledge of the breadth of the discipline, to develop an understanding of the regional and systematic approaches to studying and applying the discipline, and to become proficient in the application of the methods of inquiry and analysis that are employed in the discipline. To facilitate the development of a prepared and well rounded geographer, Geography courses are grouped into three affinity clusters: Regional Geography Courses, Systematic Geography Courses; and Methods and Techniques Geography Courses. 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.

Regional

These courses examine the relationships among peoples, cultures, and their landscapes in specific areas of the world. There are no prerequisites for these courses; their broad scope provides the student with a better understanding and appreciation of the world in which we live. Thus, they are ideally suited for general education and liberal studies.

- 100. World Regional Geography
 - 304. California
 - 306. United States and Canada
- 307I. Modernization in Global Perspective
- 308I. Africa South of the Sahara
- 309I. The Middle East and North Africa
- 313I. Southeast Asia
- 314I. South Asia
- 315I. East Asia
- 316. Europe
- 318. Russia and Its Neighbors
- 320I. Latin America
- 326. Pacific Island Area

Systematic Geography

These courses address with diverse subjects and are organized to provide the basic framework for the physical and cultural sub-fields of the discipline.

- 120. Geography of Human Diversity in the United States
- 140. Introduction to Physical Geography
- 150. Planet Earth: An Introduction
- 160. Introduction to Human Geography
- 319. International Development
- 352. Geography of Travel and Tourism
- 355. International Environmental Issues
- *381. Maps and Civilization
- 301I. Urban Life and Problems
- 440./540. Land and Water Environments
- *442. Biogeography
- *444. Climatology
- *446 Land Use Planning
- *452. Economic Geography
- *455. People As Agents of Environmental Change
- 458. Hazards and Risk Management
- *460. Population Geography
- 465. Social Geography
- *466. Urban Geography: Principles
- 467./567. Urban Geography: Metropolitan Problems
- *470. Political Geography

Methods and Techniques

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
 - 380. Map Interpretation and Analysis
 - *400. Geographical Analysis
 - 402./502. Qualitative Geographic Analysis
 - *482. Thematic Map Design for Presentation and GIS
 - *473. Remote Sensing
- 474. Introduction to Digital Image Processing
- 484./584. Advanced Concepts in Presentation Cartography
- 485./585. Introduction to Geographic Information Systems
- *486. Field Methods in Landscape Analysis
- 488./588. Geographic Information Systems

General

- *492. Internship in Applied Geography
- *494. Special Topics
- *497. Directed Studies

Geography Courses (GEOG)

Lower Division

100. World Regional Geography (3)

Prerequisite/Corequisite: One G.E. Foundation course. Through a spatial approach, World Regional Geography introduces students to the world's geographic realms and examines their cultural, population and political dynamics, resources and economic development, patterns of settlement and environmental elements. Same course as GEOG 100W. Not open to students with credit in GEOG 100W.

100W. World Regional Geography (3)

Through a spatial approach, World Regional Geography introduces students to the world's geographic realms and examines their cultural, population, and political dynamics, resources and economic development, patterns of settlement and environmental elements. Same course as GEOG 100. Not open to students with credit in GEOG 100.

120. Geography of Human Diversity in the United States (3)

Prerequisite/Corequisite: One G.E. Foundation course. This course examines America's Human Diversity from a geographic perspective. Four broad themes are considered: (1) the ways in which the social categories of race/ethnicity and gender/sexuality impact the spatial distributions of different people across the country; (2) the distinctive expressions of human diversity on/in the cultural landscapes of rural and urban United States; (3) the day-to-day spatial politics (i.e., social-spatial processes) that exclude/include different groups in different places; and (4) the patterns that emerge in a particular spatial context, southern California.

140. Introduction to Physical Geography (3)

Prerequisite/Corequisite: One G.E. Foundation course. Systematic study of the physical environment with an emphasis on human-environmental interaction and perceptions of environmental hazards and resources. Not open to students who have completed GEOG 150. (CAN GEOG 2)

150. Planet Earth: An Introduction (3)

Prerequisite/Corequisite: One G.E. Foundation course. Introduction to the earth as a whole, its many regions, and the structures and processes that determine the environment we live in. Explorations of weather and climate: landforms, earthquakes, volcanoes; coastal and water resources; ecosystem patterns; and human-environmental interactions. Focus on the dynamic environment of southern California. Small group activity sections involve field experiences, computer based activities and lab projects. Not open to students who have completed GEOG 140.

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 man's perception, organization and use of his environment. (CAN GEOG 4)

200. Introduction to Research Methods for Geographers (3)

An introduction to the scientific method in geography with an emphasis on geographic information science. (Lecture 2 hours, Laboratory 2 hours).

250. Early World Historical Geography (4)

Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students. This course uses the perspectives of history and geography to introduce students to the civilizations of Eurasia, Africa, and the Americas as they developed prior to European contact. To understand their origins and subsequent growth and development, special attention will be given to geographic and historical factors such as location and place, human/environment interactions, migrations, cultural and technological diffusion as well as the intensity of cross-cultural contact and exchange between cultures and civilizations over time. Same as HIST 250.

Upper Division

General Education Category A must be completed prior to taking any upper division course.

301I. The Urban Scene (3)

Prerequisites: ENGL 100 and upper division status. Not open to students with credit in SOC 419. Review and analysis of the changing urban scene: urban life-styles; community patterns of land use and design; population trends; conflicts in the increasingly multicultural setting of the central city; housing and community development; suburban-central city relationships; human utilization of urban life spaces; examination of the views of landmark urbanists; and future trends. Same course as U/ST 301I.

304. California (3)

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)

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.

307I. Modernization in Global Perspective (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. An exploration of the ways in which current psychological and material problems in modern society (both western and Third World) can be traced to a process of accelerating change which began with the advance of technology, the rise of capitalism, the abandonment of "old values," the increasing complexity of bureaucracy and a lowering of social barriers. Exploration of all facets of modernization utilizing films, discussions and readings (fiction and nonfiction). Same course as ANTH 307I.

308I. Africa South of the Sahara (3)

Prerequisites: Completion of the G.E. Foundation, 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.

309I. The Middle East and North Africa (3)

Prerequisites: Completion of the G.E. Foundation, 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.

313I. Southeast Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status. This course is a cross-cultural examination of the various characteristics and problems found across the region of: Southeast Asia. The specific foci will be: environmental and cultural patterns, the historical development of the spatial organization of society, demographic and other dynamics of social change related to issues of socio-economic and political development. Letter grade only (A-F).

314I. South Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status. This course is a cross-cultural examination of the various characteristics and problems found across the region of: South Asia. The specific foci will be: environmental and cultural patterns, the historical development of the spatial organization of society, demographic and other dynamics of social change related to issues of socio-economic and political development. This course will satisfy an interdisciplinary capstone requirement. Letter grade only (A-F).

315I. East Asia (3)

Prerequisites: Completion of the GE Foundation, one or more Exploration courses and upper division status. This course is a cross-cultural examination of the various characteristics and problems found across the region of: East Asia. The specific foci will be: environmental and cultural patterns, the historical development of the

spatial organization of society, demographic and other dynamics of social change related to issues of socio-economic and political development. Letter grade only (A-F).

316. Europe (3)

The human and physical patterns of Europe. Current cultural conditions and environmental problems.

318. Russia and Its Neighbors (3)

Systematic and regional study of the physical, economic and cultural geography of the Soviet Union.

319. International Development (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, upper-division standing. Explores the nature of social, political, and economic development, as well as alternative developmental models. Assesses theories of development, including modernization, diffusion, dependency, and world systems. Compares and contrasts the historical and contemporary experiences of Europe, the U.S., and other "developed" areas of the world with the economic, social, and political challenges facing the governments and peoples of Asia, Africa, Latin America, and other "developing" regions. Same course as I/ST 319I.

320I. Latin America (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Human and environmental characteristics of Middle and South America with a focus on the historical-cultural factors which shaped their present-day societies and the problems of population growth, resource utilization and economic development.

326. Pacific Island Area (3)

Regional synthesis of the physical and cultural geography of Australia, New Zealand and the island groups of Oceania.

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: Completion of the GE Foundation, one Explorations course, and upper division standing. 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/ST355.

380. Map Interpretation and Analysis (3)

Interpretation and understanding of maps as graphic communication with particular emphasis on critical analysis, symbolization, scale, and projection. (Lecture, problems 3 hours)

*381. Maps and Civilization (3)

Maps and Civilization is an interdisciplinary and cross-cultural examination of the role maps play in different cultures. It draws upon the disciplines of cartography, geography, history, art, and science. It looks at maps in both Western and non-Western cultures; both conventional and alternative cartographies; and mapping activities of both men and women. Letter grade only (A-F).

*400. Geographical Analysis (3)

Prerequisite: MATH 180 or any other equivalent introductory statistics course. Examination of advanced quantitative techniques commonly employed by geographers in analysis of spatial phenomena. Topics to be covered include: multivariate statistical methods as models for geographical analysis. Emphasis on the application of these techniques in geographical research, including the use of computers where appropriate.

402. Qualitative Geographic Analysis (4)

Prerequisite: GEOG 200, or permission of instructor. This course examines qualitative geographic methodologies and methods from a perspective of the various theoretical frameworks that geographers employ in their research. Students will be introduced to survey techniques, interview techniques, focus group techniques, textual analysis, participant observation, and ethnography. The course will include a hands-on research experience as well as a section on qualitative data analysis (four hours of discussion). Letter grade only (A-F).

440./540. Land and Water Environments (3)

Prerequisites: GEOG 140 and 380 or consent of instructor. (Undergraduates register in GEOG 440; graduates register in GEOG 540.) Landforms and related soil and water resources as physical components of the human environment. (Lecture-problems and field experience.)

***442. Biogeography (3)**

Prerequisite: GEOG 140. A course in biology is strongly recommended. Methods of mapping plant and animal distributions, spatial interaction with environmental limiting factors and man's role in temporal and spatial variation of ecosystems. (Lec-problems; field experience.)

443. Watersheds: Processes and Management (4)

Prerequisites: GEOG 140 or 150 or permission of instructor. This course will introduce basic principles of watershed hydrology, including hydrological processes, runoff behavior, and precipitation patterns, providing the context for evaluation of water quality such as nonpoint source pollution, water quantity such as flood and drought and water legislation. Laboratory and field exercises will include hydrologic data collection, processing and evaluation. (3 hours Lecture, 2 hours Laboratory.)

***444. Climatology (3)**

Prerequisites: GEOG 140 or GEOG 150 or GEOL. 163. Descriptive and explanatory analysis of the elements and controls of climate. Climates of the world with emphasis on California and North America. (Lecture, problems 3 hours)

***446. Land Use Planning (3)**

Not open to students with credit in U/ST 446 Land Use Planning. This course provides an examination of urban land use planning from the perspective of professional urban planners. The course will focus on planning issues and responses in some of the following major areas: land use; coastal zone planning; resource planning; urban growth, speculation, and economics; design and aesthetic issues; planning parameters for residences, shopping centers; and industrial parks; revitalization of built-up core areas and transportation. Same course as U/ST 446.

***452. Economic Geography (3)**

Prerequisite: Consent of instructor. Location theory and its application to the study of the distribution of various economic activities, international and interregional changes in the spatial structure of economic activities and the role of these changes in international and regional development. (Lecture, problems.)

***455. People As Agents of Environmental Change (3)**

Spatial variations in environmental change as effected by humans. A systematic and regional analysis at both macro and micro levels. (Lecture 3 hours.)

458./558. Hazards and Risk Management (3)

Prerequisites: One earth science course (GEOG 140 or 150 or GEOL 102 or 163 or 190 or permission of instructor) and one social science course (e.g., GEOG 100 or 160 or permission of instructor). Provides a broad overview of hazards and disasters, whether natural or partly technological. This course emphasizes understanding of the physical and social dynamics that must interact to produce hazard, the spatial and temporal distributions of various hazards, and policy options for disaster preparation and loss reduction.

***460. Population Geography (3)**

Introduction to the geographic study of population. Includes growth and distribution of world population; results of changing births, deaths, and migration; variations in population composition; related problems such as food supplies and environmental deterioration.

465./565. Social Geography (3)

Prerequisite: GEOG 160 or permission of instructor. This course examines the geographies of society. Students are educated in the traditions of social geography from a historical perspective. Students investigate the various methodological and theoretical approaches that make up social geography. Topics can include a mix of the following: socio-spatial inequality, crime, housing, religious systems, medical and health geography, feminist geography, the geography of sexuality, the geography of race, and/or postculturalist geography.

***466. Urban Geography: Principles (3)**

Examination of cities; their location, shape, structure and function. Selected world population clusters, theoretical and practical application of urban planning and the evolution of cities are studied. (Lecture-problems.)

467./567. Urban Geography: Metropolitan Problems (3)

Prerequisite: GEOG 466 or consent of instructor. (Undergraduates register in GEOG 467; graduates register in GEOG 567.) Geographic components of metropolitan problems and their solutions. Problems related to transportation systems, housing, evolution of ghettos, urban perception and behavioral patterns will be discussed in terms of theoretical and practically applied urban planning solutions. (Lec, problems 3 hrs.)

***470. Political Geography (3)**

Prerequisite: GEOG 100 or consent of instructor. Comparative study of the earth's politically organized regions and related systems. Varied approaches are explored, such as power analysis, genetic analysis and functional analysis of political units. Stress is upon political geographic concepts used in analyzing the viability of states and nations. (Lecture, problems.)

***473. Remote Sensing (3)**

Prerequisites: GEOG 200 and 380, or consent of instructor. Interpretation and processing of remotely sensed imagery including acquisition of imagery, the electromagnetic spectrum, kinds of imagery, and digital methodology. (Lecture 2 hours, laboratory 2 hours.)

***474. Introduction to Digital Image Processing (3)**

Prerequisites: GEOG 140 and 473 or permission 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 on various enhancement and extraction techniques, specifically, within the visible and near-infrared portions of the electromagnetic spectrum. Letter grade only (A-F). (Lecture 2 hours, lab 2 hours)

475A./575A. Geographic Applications in Remote Sensing: NASA Applications (3)

Prerequisites: GEOG 140,160, 473, and 474 Focuses on the inner workings of the NASA Applications Division as well as ongoing projects and upcoming programs funded by that Division. Chief among these projects is the Southern California Wildfire Hazard Center, a NASA Regional Earth Science Application Center (RESAC) housed at CSULB. Students will be introduced to sophisticated imagery and analysis techniques, weather modeling, and static GIS data layers used to assess various fire hazard indexes derived for use by fire and planning officials. Letter grade only (A-F).

475B./575B. Geographic Applications in Remote Sensing: Urban Environment Applications (3)

Prerequisites: GEOG 140, 160, 473, and 474 Focuses on remote sensing applications specific to municipal and county governments. Spatial data sets with high spatial and temporal resolution are identified and discussed in the context of what in many cases, are rapidly developing techniques to support cadastral, transportation, emergency response and infrastructure needs. Letter grade only (A-F).

475C./575C. Geographic Applications in Remote Sensing: Arid Lands Applications (3)

Prerequisites: GEOG 140, 160, 473, and 474 Focuses on remote sensing applications specific to arid environments. Problems and processes specific to the worlds arid lands are identified and discussed in the context of both published literature and current research projects. Applications focus on vegetation, hydrology, geology, and geomorphology. Global desertification, famine early warning and food security issues are also examined. Letter grade only (A-F).

***481. Geographic Information Science for Natural Sciences (4)**

Prerequisites: Junior/Senior/Graduate standing; GEOG 140 or 150 or BIOL 153 or 211B or GEOL 102. This course introduces the fundamentals of geographic information science and systems (GIS) to non-geography students. The course introduces the concepts of and develops skills in spatial reasoning and spatial thinking. Students explore the use of GIS for spatial query, problem analysis and decision support using examples tailored to biologic, geologic and ecologic applications. Previous course work or experience in GIS would be helpful but is not required. (2 hours of seminar, 2 hours of computer laboratory.)

***482. Map Design for Presentation and GIS (3)**

Prerequisites: GEOG 200 or equivalent and 380 or consent of instructor. Theory and techniques in the creation of thematic maps including design, generalization, and symbolization, with an emphasis on computer presentation methods. (Seminar 2 hours, laboratory 2 hours.)

484./584. Advanced Concepts in Presentation Cartography (3)

Prerequisites: GEOG 200 or equivalent, GEOG 380 and GEOG 482. (Undergraduates register in GEOG 484; Graduates register in GEOG 584.) Advanced theory and techniques for presentation cartography including communication, visualization, terrain representation, animation, and color. (Seminar 2 hours, Laboratory 2 hours.) Letter grade only (A-F).

485./585. Introduction to Geographic Information Systems (3)

Prerequisites: GEOG 200 or equivalent; GEOG 482 or consent of instructor. (Undergraduates register in GEOG 485; Graduates register in GEOG 585.) Fundamental concepts and techniques of geographic information systems are introduced, including problems of acquiring and processing machine-readable map data. (Seminar 2 hours, laboratory 2 hours) Letter grade only (A-F).

***486. Field Methods in Landscape Analysis (4)**

Prerequisite: GEOG 380 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. (Lecture-discussion 1 hour, supervised field work 6 hours)

487A. Applications of Geographic Information Science (GIS): Environment and Natural Resources (4)

Prerequisites: GEOG 140 or 150; 485 or 585, 488 or 588 or permission of instructor. This course explores the use of Geographic Information Systems for spatial query, problem analysis, spatial modeling and decision support in natural resource analysis such as assessment of landslide hazard, fire hazard or site suitability assessment, natural resources management. This course is designed to introduce students who already possess a background in GIS to applications specific to resource assessment and management. The use of raster GIS is emphasized. (3 hours Lecture, 2 hours Laboratory.)

487B. Applications of Geographic Information Science (GIS): Urban and Economic (4)

Prerequisites: GEOG 485 or 585, 488 or 588 or permission of instructor. This course builds on introductory knowledge of Geographic Information Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses. (3 hours Lecture, 2 hours Laboratory.)

488./588. Geographic Information Systems (3)

Prerequisites: GEOG 200 or equivalent; GEOG 380 and GEOG 482; GEOG 485 or permission of instructor. (Undergraduates register in GEOG 488; Graduates register in GEOG 588.) Advanced concepts in geographic information systems and techniques are introduced and their applications in geography and related disciplines are explored. (Seminar 2 hours; laboratory 2 hours.) Letter grade only (A-F).

***492. Internship in Applied Geography (3)**

Prerequisites: Geography major with upper division or graduate standing, prior geography coursework or equivalent recommended, and consent of instructor. Community-based placement to enhance professional preparation in applied geography. May be repeated once for credit; 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. Special Topics (1-3)**

Prerequisite: Consent of instructor. Application of geographical concepts and methodology to selected contemporary problems. Themes will be announced in the Schedule of Classes. May be repeated for a max 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.

***497. Directed Studies (1-3)**

Prerequisite: Consent of instructor. Individually directed studies of special problems in geography. May be repeated for a maximum of six 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

502. Qualitative Geographic Analysis (4)

Prerequisites: GEOG 200, or permission of instructor. This course examines qualitative geographic methodologies and methods from a perspective of the various theoretical frameworks that geographers employ in their research. Students will be introduced to survey techniques, interview techniques, focus group techniques, textual analysis, participant observation, and ethnography. The course will include a hands-on research experience as well as a section on qualitative data analysis (four hours of discussion).

540./440. Land and Water Environments (3)

Prerequisites: GEOG 140 and 380 or consent of instructor. (Undergraduates register in GEOG 440; graduates register in GEOG 540.) Landforms and related soil and water resources as physical components of the human environment. (Lecture-problems and field experience.)

543. Watersheds: Processes and Management (4)

Prerequisites: GEOG 140 or 150 or permission of instructor. This course will introduce basic principles of watershed hydrology, including hydrological processes, runoff behavior, and precipitation patterns, providing the context for evaluation of water quality such as nonpoint source pollution, water quantity such as flood and drought and water legislation. Laboratory and field exercises will include hydrologic data collection, processing and evaluation. (3 hours Lecture, 2 hours Laboratory.)

558./458. Hazards and Risk Management

Prerequisites: One earth science course (GEOG 140 or 150 or GEOL 102 or 163 or 190 or permission of instructor) and one social science course (e.g., GEOG 100 or 160 or permission of instructor). Provides a broad overview of hazards and disasters, whether natural or partly technological. This course emphasizes understanding of the physical and social dynamics that must interact to produce hazard, the spatial and temporal distributions of various hazards, and policy options for disaster preparation and loss reduction.

565./465. Social Geography

Prerequisites: GEOG 160 or permission of instructor. This course examines the geographies of society. Students are educated in the traditions of social geography from a historical perspective. Students investigate the various methodological and theoretical approaches that make up social geography. Topics can include a mix of the following: socio-spatial inequality, crime, housing, religious systems, medical and health geography, feminist geography, the geography of sexuality, the geography of race, and/or postcolonialist geography.

567./467. Urban Geography: Metropolitan Problems (3)

Prerequisite: GEOG 466 or consent of instructor. (Undergraduates register in GEOG 467; graduates register in GEOG 567.) Geographic components of metropolitan problems and their solutions. Problems related to transportation systems, housing, evolution of ghettos, urban perception and behavioral patterns will be discussed in terms of theoretical and practically applied urban planning solutions. (Lec, problems 3 hrs)

575A./475A. Geographic Applications in Remote Sensing: NASA Applications (3)

Prerequisites: GEOG 140, 160, 473, and 474 Focuses on the inner workings of the NASA Applications Division as well as ongoing projects and upcoming programs funded by that Division. Chief among these projects is the Southern California Wildfire Hazard Center, a NASA Regional Earth Science Application Center (RE-SAC) housed at CSULB. Students will be introduced to sophisticated imagery and analysis techniques, weather modeling, and static GIS data layers used to assess various fire hazard indexes derived for use by fire and planning officials. Letter grade only (A-F).

575B./475B. Geographic Applications in Remote Sensing: Urban Environment Applications (3)

Prerequisites: GEOG 140, 160, 473, and 474. Focuses on remote sensing applications specific to municipal and county governments. Spatial data sets with high spatial and temporal resolution are identified and discussed in the context of what in many cases, are rapidly developing techniques to support cadastral, transportation, emergency response and infrastructure needs. Letter grade only (A-F).

575C./475C. Geographic Applications in Remote Sensing: Arid Lands Applications (3)

Prerequisites: GEOG 140, 160, 473, and 474. Focuses on remote sensing applications specific to arid environments. Problems and processes specific to the world's arid lands are identified and discussed in the context of both published literature and current research projects. Applications focus on vegetation, hydrology, geology, and geomorphology. Global desertification, famine early warning and food security issues are also examined. Letter grade only (A-F).

584./484. Advanced Concepts in Presentation Cartography (3)

Prerequisites: GEOG 200 or equivalent, GEOG 380 and GEOG 482. (Undergraduates register in GEOG 484; Graduates register in GEOG 584.) Advanced theory and techniques for presentation cartography including communication, visualization, terrain representation, animation, and color. (Seminar 2 hours, laboratory 2 hours.) Letter grade only (A-F).

585./485. Introduction to Geographic Information Systems (3)

Prerequisites: GEOG 200 or equivalent; GEOG 482 or consent of instructor. (Undergraduates register in GEOG 485; Graduates register in GEOG 585.) Fundamental concepts and techniques of geographic information systems are introduced, including problems of acquiring and processing machine-readable map data. (Seminar 2 hours, laboratory 2 hours.) Letter grade only (A-F).

587A. Applications of Geographic Information Science (GIS): Environment and Natural Resources(4)

Prerequisites: GEOG 140 or 150; 485 or 585, 488 or 588 or consent of instructor. This course explores the use of Geographic Information Systems for spatial query, problem analysis, spatial modeling and decision support in natural resource analysis such as assessment of landslide hazard, fire hazard or site suitability assessment, natural resources management. This course is designed to introduce students who already possess a background in GIS to applications specific to resource assessment and management. The use of raster GIS is emphasized. (3 hours Lecture, 2 hours of Laboratory.)

587B. Applications of Geographic Information Science (GIS): Urban and Economic (4)

Prerequisites: GEOG 485 or 585, 488 or 588 or consent of instructor. This course builds on introductory knowledge of Geographic Information Systems, spatial analysis and spatial data and focuses on urban and economic applications and analyses. (3 hours Lecture, 2 hours Computer Laboratory.)

588./488. Geographic Information Systems (3)

Prerequisites: GEOG 200 or equivalent; GEOG 380; GEOG 482; GEOG 485 or GEOG 585 or permission of instructor. (Undergraduates register in GEOG 488; Graduates register in GEOG 588.) Advanced concepts in geographic information systems and techniques are introduced and their applications in geography and related disciplines are explored. (Seminar 2 hours; laboratory 2 hours.) Letter grade only (A-F).

596. Literature and Methods in Geography (3)

Prerequisite: Consent of instructor. Proseminar in the methods, theory and techniques of geographic investigation with emphasis upon classical and contemporary literature.

600. Seminar in Regional Geography (3)

Prerequisite: Consent of instructor. Regional methods of study common to geographic research, and their utilization in developing regional concepts.

640. Seminar in Physical Geography (3)

Prerequisite: Consent of instructor. Physical/environmental issues and problems.

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 once with consent of department advisor.

666. Seminar in Urban Geography (3)

Prerequisite: Consent of instructor. Geographic concepts and techniques of research applied to specific urban areas. May be repeated once with consent of department advisor.

680. Seminar in Cartography and Geographical Information Systems (3)

Prerequisites: Consent of Instructor. Application of geographic concepts and methodology to selected cartographic and GIS problems. May be repeated with the consent of Department Advisor. Possible research themes: cartographic communication, history of cartography, applications of geographic information systems.

697. Directed Research (1-3)

Prerequisite: Consent of instructor. Research in geography supervised on an individual basis.

698. Thesis (1-6)

Prerequisite: Consent of instructor. Planning, preparation and completion of thesis for the master's degree.

Urban and Regional Studies Courses (U/ST)

Upper Division

General Education Category A must be completed prior to taking any upper division course.

3011. The Urban Scene (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Not open to students with credit in SOC 419. Review and analysis of the changing urban scene: urban life-styles; community patterns of land use and design; population trends; conflicts in the increasingly multicultural setting of the central city; housing and community development; suburban-central city relationships; human utilization of urban life spaces; examination of the views of landmark urbanists; and future trends. Same course as GEOG 3011.

***446. Land Use Planning (3)**

Not open to students with credit in U/ST 490 Land Use Planning. This course provides an examination of urban land use planning from the perspective of professional urban planners. This course will focus on planning issues and responses in some of the following major areas: land use, coastal zone planning; resource planning; urban growth, speculation, and economics; design and aesthetic issues; planning parameters for residences; shopping centers, and industrial parks; revitalization of built-up core areas and transportation. Same course as GEOG 446.

490. Topics in Urban and Regional Studies (1-3)

Prerequisite: Consent of instructor. Topics of current interest in urban and regional studies selected for intensive development. Topics will be announced in the *Schedule of Classes*.

499. Independent Study (1-3)

Prerequisite: Consent of instructor. Independent study under the supervision of a faculty member.

GEOLOGICAL SCIENCES

College of Natural Sciences and Mathematics

Department Chair

Stanley C. Finney

Department Office

Peterson Hall (PH) 3 - 102A

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(562) 985-4809/(562) 985-8638

Web Site

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Jack Green

James C. Sample

Associate Professor

Richard J. Behl

Assistant Professors

Gregory J. Holk

María-Teresa Ramírez-Herrera

Administrative Support Coordinator

Margaret F. Kemp

Students desiring information should contact the Department Office for referral to one of the faculty advisors:

Undergraduate Advisor

Robert D. Francis

Graduate Advisor

Robert D. Francis

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Geological Sciences includes the study of the solid earth, the hydrosphere, and the atmosphere. Within the broad field of Geological Science students may elect to take course work leading to professional careers in such areas as geohydrology, environmental geology, urban geology, engineering geology, petroleum geology, mineral exploration, and government service. The degree programs also prepare students for academic careers in schools or universities, although additional work is usually required for such careers. All Earth Science and Geology majors must contact the Department Office to obtain a Departmental Advisor prior to the first semester in residence.

The Geological Sciences Department participates in the Southern California Marine Institute. See the Ocean Studies Institute section of this *Catalog* for additional information.

Concurrent and/or Summer Enrollment in Another College

Students who wish to take course work 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 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.

Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' 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 Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

Bachelor of Science in Geology (code GEOLBS01) (126-133 units)

The bachelor of science degree program is intended to provide a thorough background in the geological sciences for those planning to pursue careers in industry or to do graduate study. The program is designed with the conviction that, in an ever-changing and technologically-oriented industry and research environment, a student must have a strong geological background. As such, he/she needs a program which explores the fundamental geological processes, cultivates skills in integrative three-dimensional geological thinking, provides laboratory and field experience, and stimulates interest in the many subdisciplines of the geological sciences.

Within the broad field of geology, students may elect to follow any one of five emphases: General Geology, Petroleum Geology, Stratigraphy/Sedimentology, Geochemistry/Mineralogy-Petrology, and Structural Geology. Each student should contact the undergraduate advisor for assistance in planning the degree program.

Geology majors must receive a grade of "C" or better in all courses required for the major. A grade of "C" or better is required in the laboratory portion of each geology course in order to pass that course. Also, before any geology course can be taken, all geology prerequisites for that course must be completed with a grade of "C" or better.

A minimum of 126-133 units is required for the bachelor of science degree in the various emphases in geology. Emphases

other than General Geology are based on the General Geology emphasis, but have structured electives and other variations from that plan. An additional course chosen with the consent of the undergraduate advisor may be recommended for individual emphases, transfer students should fulfill, prior to transferring, the appropriate lower division curricular requirements as outlined in later sections. Particular attention should be paid to fulfilling the lower division math, chemistry, physics, and biology requirements.

Lower Division: GEOL 102, 104, 240, 273; MATH 122, 123, CHEM 111A-B; PHYS 151, 152; BIOL 200. Additional required courses for the various emphases are listed below.

Upper Division: GEOL 321, 324, 341, 343, 428, 429, 433, 450, 451. Additional required courses for the various emphases are listed below.

1. General Geology: Twelve units of elective courses (normally at upper division) approved in advance by the undergraduate advisor. At least one of the courses taken toward these 12 units must be chosen from among the following: GEOL 460, 461, or 462.
2. Petroleum Geology: MATH 224, GEOL 420, 460, 461, 471.
3. Stratigraphy/Sedimentology: GEOL 364, 364L, 420, 424, 431, 461.
4. Geochemistry/Mineralogy-Petrology: MATH 224; CHEM 371A-B; GEOL 461.
5. Structural Geology/Tectonics: GEOL 430, 460, 462; MATH 224, 370A.

Minor in Geology (code GEOLUM01)

The Minor in Geology is available to any non-Geology major.

Twenty units in geology courses which must include:

Lower Division: GEOL 102, 104, 240.

Upper Division: At least 9 additional units of geology approved in advance by the appropriate undergraduate Departmental Advisor.

Bachelor of Science in Earth Science (code GEOLBS02) (130-131 units)

The Earth Science program prepares students to understand the natural environment, earth resources, land and ocean use, pollution, geology of the sea floor, and other areas of critical importance to present and future world problems. Career-oriented interdisciplinary emphases are offered in Geohydrology/Environmental Geology, Engineering Geology, Exploration Geophysics, and Marine Geology/Oceanography.

Earth Science majors must receive a grade of "C" or better in all courses required for the major. A grade of "C" or better is required in the laboratory portion of each geology course in order to pass that course. Also, before any geology course can be taken, all geology prerequisites for that course must be completed with a grade of "C" or better.

As outlined below a minimum of 124 units is required for the various emphases in Earth Science.

Lower Division: GEOL 102, 104, 240, 273; MATH 122, 123, 224; CHEM 111A; PHYS 151, 152.

Upper Division: GEOL 324, 343, 428, 433, 460.

1. Geohydrology/Environmental Geology: MICR 200; CHEM 111B; CE 205, 335, 336; GEOL 450, 451, 461, 477, 496 (1 unit devoted to hand specimen petrology which MUST be

taken the same semester as GEOL 428); and a minimum of 3 units selected in consultation with the undergraduate advisor.

2. Engineering Geology: BIOL 200; CHEM 111B, CE 205, 345, 346, 445, MAE 373; GEOL 431, 450, 477, 496 (1 unit devoted to hand specimen petrology which MUST be taken the same semester as GEOL 428).
3. Exploration Geophysics: BIOL 200; MATH 247, 370A-B; PHYS 310, 340A, 402; GEOL 462, 496 (1 unit devoted to hand specimen petrology which MUST be taken the same semester as GEOL 428), and a minimum of 7 units selected in consultation with the undergraduate advisor.
4. Marine Geology/Oceanography: BIOL 200; CHEM 111B; GEOL 321, 341, 364, 364L, 429, 452, 461, 465, 466, and a minimum of 3 units selected in consultation with the undergraduate advisor.

Teaching Credential

Requirements Related to a Geoscience Specialization

The Science Teaching Credential with a Specialization in Geoscience is formally administered by the Department of Science Education and the Single Subject Teacher Education Program in the College of Education. Students must also take professional education courses to earn a credential. The student is strongly encouraged to consult with an advisor in the Department of Geological Science, the Department of Science Education, or the Single Subject Credential Program for more information about additional requirements for the credential.

Lower Division: ASTR 100; BIOL 211A-B; CHEM 111A-B; GEOL 102, 104, 160, 273; PHYS 151-152, MATH 122, 123.

Upper Division: GEOL 324, 341, 343, 428, 433, 450; SCED 403.

Master of Science in Geology (code GEOLMS01)

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 engineering geology, environmental geochemistry, geology, hydrogeology, marine geology, mineralogy and petrology, paleontology, petroleum geology, sedimentology, stratigraphy, structural and field geology, and volcanology. In addition, a formal emphasis in geophysics is available. Students may include in their studies courses offered by other departments at CSULB, or courses at California State University Northridge and California State University Los Angeles; CSULB participates with both universities in a joint Master's program.

The objectives of the Master of Science in Geology are (1) to train individuals with the competence required by the geological profession for employment in industry and government agencies, (2) to enable promising students to attain a level of knowledge and research ability required for admission to Ph.D. programs at other universities, and (3) to provide course work and research experience necessary for students planning to teach geology at the community college level.

Emphasis in Geophysics

The emphasis in geophysics is available for students wishing to specialize in the application of geophysical principles to the solution of problems in engineering geology, geohydrology,

structural geology, tectonics, petroleum geology, and mineral exploration. Students following this Emphasis are expected to have completed the equivalent of course work required for the B.S. in Earth Science, Geophysics emphasis, and additionally to complete M.S. requirements with a program of geophysical course work approved in advance by both the graduate advisor and a geophysics advisor. Appropriate B.S. programs which provide training suitable for completion of the M.S. in Geology, Geophysics Emphasis, include Civil and Electrical Engineering, Physics, Mathematics, and Geology in addition to Geophysics, although some deficiencies will exist in these alternate programs. Students should confer with the graduate advisor about this program.

Departmental Resources

Resources available for thesis research include atomic absorption, spectrophotometer, flame photometer, UV/visible spectrometer, carbon-sulfur analyzer, HEPA-filtered clean laboratories for inorganic and organic geochemistry sample processing, scanning electron microscope, transmission electron microscope, EG & G ES-1225 seismic unit with falling weight energy source, Wild theodolite and electronic distance measurement unit, LaCoste and Romberg gravity meters (D meter with electrostatic feedback device and G-level), surface resistivity/self potential apparatus, GSSI System 10 color-enhanced ground penetrating radar, total field proton magnetometer with gradiometer, cesium vapor magnetometer, X-ray diffraction and fluorescence units, hydrous pyrolysis pressure vessel, gas chromatographs, stable isotope vacuum lines, ICP-MS with laser ablation system, automated microwave digestion system, department computer network featuring PC's and Macintosh computers, a portable PC for interfacing with field geophysical instruments, a Hewlett-Packard Draft-Master plotter, several printers, a scanner, and access to the oceanographic research ship R/V Yellowfin with associated oceanographic equipment including a proton precession magnetometer and a high resolution seismic reflection and side-scan sonar mapping systems.

Admission to the Program

The basic requirement for admission to the graduate program is possession of a bachelor's degree or equivalent in geology or earth sciences comparable to degrees offered at CSULB. The student normally will be expected to have completed as an undergraduate acceptable work in certain basic lower division and upper division subjects. Lower division subjects include calculus, calculus-based physics, chemistry, biology, computer programming and statistics. Upper division subjects depend on the degree emphasis and sub-discipline to be followed by the student, and generally include (but may not be limited to) courses required by the corresponding undergraduate emphases. Students who are missing some of this course work may be admitted to the program but will be expected to remove deficiencies or present acceptable alternatives.

In addition to the above course work requirements, students are required to take both the General (quantitative and verbal) and Geology subject tests 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 as described previously in this *Catalog* and must also apply directly to the Department of Geological Sciences. All applicants must submit the following documents directly to the Department no later than 15 April for the fall semester or 15 No-

vember for the spring semester to receive consideration for admission:

1. Department Application Form, available from the Department Office;
2. 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;
3. Three letters of recommendation from persons familiar with the applicant's academic performance and research potential;
4. Official reports of scores on both the General (quantitative and verbal) and Geology subject tests of the Graduate Record Examination.

A limited number of assistantships are available to fund graduate studies in the Department of Geological Sciences. Applicants wishing to be considered for assistantships must submit all application materials to the Department Office no later than 15 February for the Fall semester or 15 October for the Spring semester.

Students not meeting the Department's admissions standards or application requirements may be admitted on probationary status on a case-by-case basis. Those students will be expected to maintain the same high academic standards as fully admitted students. After two semesters, students admitted on probationary status will be re-evaluated for full admission to the Department.

Initiation of Graduate Study

Students are responsible for all University and Department regulations governing master's degrees as outlined in this *Catalog*. The regulations governing the degree are those in effect at the time of advancement to candidacy. Until that time, students are governed by the most current *Catalog*. The advising of incoming graduate students is carried out by the graduate advisor, who explains the requirements of the program and carries out initial academic advising. It is required that the student arrange for this initial advising before or during his/her first semester.

All entering students must take GEOL 500 (Introductory Graduate Seminar) during their first Fall semester. This course consists of faculty-given seminars that introduce new students to the Department and to the faculty and their research. One purpose of this is to encourage the student to find a thesis topic and thesis advisor by the end of the second semester. This is done with the help of the graduate advisor once the student has chosen a sub-discipline or option in which to specialize.

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 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 initiating thesis research necessary to complete the M.S. de-

gree. Students are expected to be advanced by the end of their fourth semester. Students may petition the Department for an extension of the four semester time limit on a semester by semester basis. Students should be aware, however, that they are at risk of not receiving credit toward their graduate programs for research started or courses taken prior to advancement. Students must have completed the WPE and have advanced to candidacy before they apply for graduation. 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.

Before advancement can proceed, a thesis topic, 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. Prior completion of all deficiencies or 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.
4. Completion of the Writing Proficiency Examination with a passing score.
5. Successful completion of an oral qualifying examination given by the student's 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 committee, graduate advisor, Department Chair and Associate Dean for Graduate Accountability. 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 director, topic, committee members, or courses in the graduate program, approval 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 finalized when the student advances to candidacy. Although courses that will eventually become part of the student's academic program may be taken before advancement, it is strongly recommended that students make up any undergraduate deficiencies first, and then advance as early as possible. The program proposed by the thesis committee chair and the student must be approved by the thesis committee, Graduate Advisor, Department Chair, Associate Dean for Graduate Accountability and Dean of Graduate Studies. Six units of GEOL 698 (Thesis) must be taken as part of the program. Directed Research, GEOL 697, may account for up to three units, but normally can not 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 18 units of 500 or 600 level courses, including Thesis, must be completed; the remaining units (12 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. 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 permission 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. With prior approval, this presentation can take one of many possible formats, including a departmental seminar, a presentation at a regional or national meeting, or a formal thesis defense. The student must schedule his/her presentation at least two weeks in advance, and with the approval of the thesis committee chair and thesis director. The date of the presentation must precede the filing deadline for the semester in which the student plans to graduate.

Courses (GEOL)

Lower Division

102. General Geology (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Broad based introductory study of geology. Includes the structure, composition, distribution, and modification of earth materials and also the elementary geologic history of the Earth. Not open to students with credit in GEOL 103 or 107. Concurrent enrollment in GEOL 104 or 105 recommended. (Lecture, demonstration 3 hrs.) (GEOL 102+104, CAN GEOL 2)

104. Geology Laboratory (1)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent, and concurrent or prior enrollment in GEOL 102. Laboratory study of earth materials. (Laboratory 3 hrs.) Course fee required. (GEOL 104+102, CAN GEOL 2)

105. Geology Field Laboratory (1)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) 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 for credit with consent of instructor to a maximum of three units. (Field trips, 6 days per unit.) Fee charged for bus trips.

106. Earth Science for Teachers (4)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics, including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Broad based introductory study of earth science, including geology, oceanography, meteorology, and solar system astronomy. Includes study of earth materials, elementary geologic history, ocean basins and coastlines, weather and climate, pollution and earth resources, geology of the planets, laboratory study of rocks and minerals maps, and simple scientific instruments. Discussion of the scientific method. Introduction to methods of teaching science to K-8 pupils. Letter grade only (A-F). (Lecture, demonstration 3 hours., laboratory 3 hrs., field trips.)

160. Introduction to Oceanography (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Origin and extent of the oceans; nature of the ocean floor; cause and effect of currents, tides and waves; and life in the sea. (Lecture, discussion 3 hrs.)

160L. Introduction to Oceanography Laboratory (1)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent; and previous credit or concurrent registration in GEOL 160. Field and laboratory study of the marine environment. Sea trips for experience in the use of oceanographic instruments. Analysis and interpretation of results. (Laboratory-field 3 hrs.) Course fee required.

163. Science of the Atmosphere and Weather (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Introduction to physical and chemical processes of the atmosphere, science of weather and weather disturbances. Emphasis on understanding the atmospheric environment rather than technical calculations. (Lecture 3 hrs.) Letter grade only (A-F).

190. Environmental Geology (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Interrelationships between humans and hazards: landslides, floods, erosion, subsidence, volcanism, earthquakes, and seismic sea waves. Origin of resources and impacts of resource development: water, soils, and energy. Waste and waste disposal. (Lecture 3 hrs.)

191. Air and Water Pollution (3)

Prerequisites: Completion of or concurrent enrollment in a course that fulfills the A.1 GE requirement and three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) or the equivalent. Survey course dealing with the causes and nature of pollution of the air, groundwater, fresh water lakes and streams, and the ocean. Effects of air and water pollution on the environment. (Lecture 3 hrs.)

240. Historical Geology (4)

Prerequisites: GEOL 106 or both GEOL 102 and 104. History of the earth and evolution of animals and plants. (Lecture 3 hrs., laboratory 3 hrs., field trips.) Course fee required. (CAN GEOL 4)

273. Computer and Statistical Methods in Geology (4)

Prerequisites: GEOL 240, PHYS 151, MATH 123. An elementary background in computers is recommended. Introduction to statistical theory, computer programming, and the use of computer-based statistical and graphical packages as applied to problem-solving in the geological sciences. Letter grade only (A-F). (Lecture 2 hrs., laboratory 6 hrs., field trips.) Course fee required.

280. Water Resources and Society (3)

Prerequisites: GEOL 102, 104. A grade of "C" or better in MATH 117, or four years of high school mathematics. Hydrologic, geologic, and other factors controlling groundwater and surface water occurrence, movement, quality, and contamination. Environmental effects of groundwater and surface water contamination. (Lecture 3 hours; field trips)

Upper Division

300I. Earth Systems and Global Change (3)

Prerequisites: Completion of the G.E. Foundation, upper division status, and CHEM 100 or CHEM 111A or GEOL 102 or GEOL 106 with a grade of "C" or better. Introduction to the interaction of the Earth's systems (biosphere, lithosphere, hydrosphere, cryosphere, and atmosphere). Exploration of the systematic links between life, oceans, climate, and the solid earth, and how these connections control climate change in the past, present, and future. The Earth

Systems approach is used to understand important current issues confronting society regarding local and global climatic and environmental change. Letter grade only (A-F). (Lecture 3 hrs.)

303. Coastal Systems and Human Impacts (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing; BIOL 200; GEOL 102 or 160. Defines and describes natural processes impacting human activities in the coastal zone and how human practices influence natural processes. Topics include global warming, sea level rise, El Nino, port development, ocean outfalls and water quality, fisheries, and coastal erosion. May not apply units towards elective requirements of Geology and Earth Science majors. Same course as BIOL 303. Letter grade only (A-F). (Lecture 3 hrs.)

321. Optical Mineralogy (3)

Prerequisites: GEOL 324, MATH 123, PHYS 151. Optical properties of crystals and minerals. Laboratory study of minerals in immersion liquids and thin sections with polarizing microscope. Letter grade only (A-F). (Lecture 1 hr., laboratory 6 hrs.)

324. Mineralogy and Crystallography (4)

Prerequisites: GEOL 102 and 104, CHEM 111A. Corequisite or prerequisite: PHYS 151. Morphological and structural crystallography; crystal chemistry; crystal structure; chemistry, classification, origin, occurrence and association of minerals. Megascopic, qualitative chemical, and instrumental analysis and identification of minerals in the laboratory. (Lecture 2 hrs., laboratory 6 hrs., field trips.) Course fee required.

339. Introduction to Geomorphology (3)

Prerequisites: GEOL 102 with 104 or 105; or GEOL 106; or GEOG 140 or 150. An introduction to the study of landforms and the processes that produce and modify them. Emphasis is placed on the mechanics of geomorphic processes and on the relationships between properties of earth materials and the forces applied to them by gravity, wind, ice, water, waves, and humans. Lectures address the conceptual basis of geomorphology; assignments are practical and empirical. Course is designed for majors in Geology, Geography, Biology, Environmental Sciences, Anthropology, and Civil Engineering. (Lecture 2 hrs., laboratory 3 hrs., field trips). Letter grade only (A-F).

341. Paleontology and Biostratigraphy (4)

Prerequisites: GEOL 240 and BIOL 200. Morphologic, systematic, and ecologic aspects of invertebrate fossils; methods and techniques in the collection, preparation, illustration, and description of fossils; uses of fossils in stratigraphic work; principles of biostratigraphy. (Lecture 3 hrs., laboratory 3 hrs., field trips.)

343. Stratigraphy/Sedimentology (4)

Prerequisites: GEOL 240, 324, 428, and 429. Introduction to sedimentology and stratigraphy, flow mechanics and sedimentary structures, depositional systems, seismic stratigraphy and sea level changes, sedimentation and tectonics, methods of description and classification of sedimentary rocks, and preparation of sedimentologic field reports (Lecture 3 hrs., laboratory 3 hrs., field trips.)

364. Introduction to Geological Oceanography (2)

Prerequisites: GEOL 102 or 160; and CHEM 111A or MATH 122, or consent of instructor. Topography and structure of the ocean floor. Waves, currents, and tides as agents of sedimentation. Effect of geological processes on the sea floor environment. Tectonic and sedimentary history of ocean basins and continental margins. Shipboard techniques in marine geology. (Lecture 2 hrs.; sea trips.)

364L. Laboratory in Geological Oceanography (1)

Prerequisite or corequisite: GEOL 364. Analytical and data collecting techniques in marine geology. Chart reading and navigation. Bottom and subbottom profiling. Sample collecting methods and their applicability. Laboratory analysis of bottom samples. Interpretation of data from geologically significant localities visited by research ship. Letter grade only (A-F). (Laboratory 3 hrs.; sea trips.)

370. Engineering Geology (2)

Prerequisites: MAE 172, CE 225. 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.) Course fee required.

***420. Geowriting (3)**

Prerequisites: Upper division or graduate standing in the College of Natural Sciences and Mathematics, ENGL 100 or equivalent, passing score on WPE and a course in geology, and consent of instructor. Covers major types of scientific writing aimed at a scientific audience with emphasis on writing scientific content at an advanced level. Journal articles and abstracts will be covered in detail. Topics include handling descriptive scientific data, the distinction between data and interpretation, logic and argument, clarity of style, and writing for specific audiences. Requires extensive independent writing. Enrollment limited. (Lecture 3 hrs.) Letter grade only (A-F).

424./524. Sedimentary Petrology (4)

Prerequisites: GEOL 321, 324, and 343. (Undergraduates register in GEOL 424; graduates register in GEOL 524.) Microscopic and macroscopic study of sedimentary rocks. Identification of grain types, textures, structures, and cements with emphasis on provenance, paleotectonics, paleoenvironmental reconstructions, and diagenesis. (Lecture 3 hrs., laboratory 3 hrs.)

428. Igneous and Metamorphic Petrology and Petrogenesis (2)

Prerequisites: GEOL 102, 104, and 324, CHEM 111A and 111B, PHYS 151 and 152, MATH 122 and 123. Corequisite: GEOL 429 (Geology majors) or 1 unit GEOL 496 (hand specimen petrography lab, Earth Science majors). Characteristics of magmatic and metamorphic rock bodies and systems, including mineralogical and chemical aspects. Origin of fabrics; evolution of igneous and metamorphic rocks based on petrologic, isotopic, and geochemical evidence; selected research topics in other aspects of petrology. Letter grade only (A-F). (Lecture 2 hrs., field trips.) Course fee required.

***429. Igneous and Metamorphic Petrography Laboratory (2)**

Prerequisite: GEOL 273 and 321. Corequisite: GEOL 428. Microscopic and ancillary hand specimen analysis of igneous and metamorphic rocks, including fabric analysis and mineral identification and analysis. X-ray analysis of rocks, computer modelling of magma genesis. Topics will be closely tied to concurrent material in GEOL 428. Letter grade only (A-F). (Laboratory 6 hrs.) Course fee required.

430./530. Seminar in Structural Geology and Tectonics (3)

Prerequisite: GEOL 433. (Undergraduates register in GEOL 430; graduates register in GEOL 530.) Critical review of selected topics concerning the analysis, interpretation and origin of geologic structures, the mechanics of rock deformation and of large scale crustal deformation. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.)

431./531. Tectonic Geomorphology (4)

Prerequisite: GEOL 433. (Undergraduates register in GEOL 431; graduate students register in GEOL 531.) Observation and analysis of Earth surface processes and the development of landforms and landscape. Study of the interaction between surficial processes and tectonic, biologic, hydrologic, climatic, and atmospheric processes. Emphasis on the study of tectonic generated landforms, evaluation of earthquake hazards, and geomorphic assessment. Methods and techniques to assess real problems in the study of landforms and applications to environmental hazards. (Lecture 2 hrs., laboratory 6 hrs., field trips). Letter grade only (A-F).

433. Structural Geology (4)

Prerequisites: GEOL 240, 273, 324, PHYS 152. Introduction to structural geology, description of rock structures, graphical solutions to structural problems, computer manipulation of structural data, strain analysis, rock fabric analysis, field analysis of tectonic structures, analysis of structures from maps and cross sections, and structural geology and tectonics. (Lecture 3 hrs., laboratory 3 hrs., field trips.)

450. Summer Field Geology (6)

Prerequisites: GEOL 343, 428, 429 or 496 (1 unit devoted to hand specimen petrology which MUST be taken concurrently with GEOL 428) and 433. Six weeks of geological field mapping at a selected area. Preparation of geological reports of the field problems. (Lecture as needed, daily field work.)

***451. Senior Field Study (3)**

Prerequisites: GEOL 450. Advanced field studies in geology. Students pursue a field-oriented project of interest in a geographical

area(s) and subject(s) agreed upon by instructor. Primary responsibility for design and implementation of project belongs to the student. Project will also involve laboratory work and writing of reports. Letter grade only (A-F). (Lecture 1 hr., field trips.)

452. Advanced Topics in Marine Geology (3)

Prerequisites: GEOL 364 and 364L. Corequisite or prerequisite: GEOL 460. Advanced course stressing field collection of data and samples, analysis of data in laboratory, and completion of report. Individual topics will be selected. Lectures on advanced topics in marine geology: structure and composition of oceanic lithosphere, continental margin structure and evolution, seismic stratigraphy, paleoceanography, critical events in world ocean history, and advanced sampling and geophysical techniques. Letter grade only (A-F). (Lecture 1 hr., laboratory 3 hrs., 5 days of sea trips.)

***460. Introduction to Geophysics (4)**

Prerequisites: PHYS 152, MATH 123, and GEOL 273. Introduction to geophysics; principles and processes; methods of investigation. (Lecture 2 or 3 hrs., laboratory 3 or 6 hrs., field trips.) Course fee required.

***461. Introduction to Geochemistry (4)**

Prerequisites: CHEM 111B, MATH 123. Abundance and migration of elements in the earth; chemical processes in the evolution of the earth and its crust including geochemistry of organic compounds. (Lecture 3 hrs., laboratory 3 hrs.) Course fee required.

***462. Physics and Chemistry of the Earth's Interior (3)**

Prerequisites: GEOL 240, 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./565. Physical and Chemical Oceanography (3)

Prerequisites: CHEM 111B, PHYS 100B, and upper division standing in the College of Natural Sciences and Mathematics or Engineering. (Undergraduates register in GEOL 465; graduates register in GEOL 565.) Physical and chemical oceanography; the carbonate cycle; minor elements and micronutrient elements in sea water; water masses of the oceans; the physical concepts and interpretative theories related to ocean circulation. (Lecture 3 hrs.)

***466. Oceanography Laboratory and Ocean Studies (1)**

Prerequisite: Concurrent or prior enrollment in GEOL 465. Instruments and techniques in physical and chemical oceanography; sea trips to areas of oceanographic significance, water quality analysis and interpretation of oceanographic data. Not open to students with credit in GEOL 462. (Laboratory 3 hrs., sea trips.)

***471. Petroleum Geology and Well Log Analysis (4)**

Prerequisites: GEOL 240, 343, and 433. Application of geology to the exploration and production of petroleum, including the uses of both surface and subsurface techniques. Basic well logging techniques as employed in the petroleum (and other) industries, 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.)

477./577. Hydrogeology (3)

Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates register in GEOL 477; graduates register in GEOL 577.) Hydrologic, geologic, and other factors controlling groundwater flow, occurrence, development, chemistry, and contamination. Elementary groundwater flow theory. Well hydraulics. (Lecture 2 hrs., laboratory 3 hrs.) Letter grade only (A-F).

486./586. Engineering Geophysics (3)

Prerequisite: GEOL 460 (may be taken concurrently). (Undergraduates register in GEOL 486; graduates register in GEOL 586.) Applications of geophysical techniques to the solution of engineering geology and hydrogeology problems. Review of basic geophysical techniques, and identification and utilization of specialized techniques suitable for the solution of specific problems. Applications and case histories in hazardous waste site evaluations, actively subsiding areas, mapping of basement topography, sea water intrusion problems, mapping of the water table, groundwater contamination, and detection of subsurface cavities. Reading and discussion of research articles; preparation of geophysical feasibility studies in selected engineering environments. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.) Course fee required.

***489. Current Topics in Geological Sciences (3)**

Prerequisite: Consent of instructor. Topics of current interest in the geological sciences selected for intensive development. Topics to be selected from such areas as (a) Volcanology, (b) Urban geology. May be repeated for 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. Topics to be selected from such areas as (K) Economic Mineral Deposits. May be repeated for 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. An introduction to graduate policies and faculty research in Geological Sciences. Abstracts on faculty presentations will be required of all students. Course cannot be counted for program requirements for the M.S. degree in Geology. Credit/No Credit grading only. Course may be repeated for a maximum of 3 units. (Seminar 1 hr.)

524./424. Sedimentary Petrology (4)

Prerequisites: GEOL 321, 324, and 343. (Undergraduates register in GEOL 424; graduates register in GEOL 524.) Microscopic and macroscopic study of sedimentary rocks. Identification of grain types, textures, structures, and cements with emphasis on provenance, paleotectonics, paleo-environmental reconstructions, and diagenesis. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

530./430. Seminar in Structural Geology and Tectonics (3)

Prerequisite: GEOL 433. (Undergraduates register in GEOL 430; graduates register in GEOL 530.) Critical review of selected topics concerning the analysis, interpretation and origin of geologic structures, the mechanics of rock deformation and of large scale crustal deformation. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.)

531./431. Tectonic Geomorphology (4)

Prerequisite: GEOL 433. (Undergraduates register in GEOL 431; graduate students register in GEOL 531.) Observation and analysis of Earth surface processes and the development of landforms and landscape. Study of the interaction between surficial processes and tectonic, biologic, hydrologic, climatic, and atmospheric processes. Emphasis on the study of tectonic generated landforms, evaluation of earthquake hazards, and geomorphic assessment. Methods and techniques to assess real problems in the study of landforms and applications to environmental hazards. (Lecture 2 hrs., laboratory 6 hrs., field trips). Letter grade only (A-F).

537. California Geology (3)

Prerequisites: GEOL 433, GEOL 450. Examination of recent theories concerning the evolution of California's geological provinces; geological, geochemical, and geophysical evidence for these theories. Letter grade only (A-F). (Lecture 3 hrs., field trips.)

554. Environmental Geochemistry (3)

Prerequisites: Graduate standing in geology, a course in instrumental analytical methods, and consent of instructor. Geochemical cycles. Human interference with cycles. Trace elements, health and agriculture. Clay mineral reactions. Groundwater chemistry. Reading and discussion of research articles; projects in environmental geochemistry. Letter grade only (A-F). (Lecture 3 hrs., field trips.)

556. Organic Geochemistry (3)

Prerequisites: CHEM 111B, GEOL 240. Exchange of organic matter among sediments, hydrosphere, and biosphere. Diagenesis and catagenesis and their effects on different types of organic matter. Origin of coal and crude oil. Thermal maturity of sedimentary rocks. Letter grade only (A-F). (Lecture 3 hrs.)

565./465. Physical and Chemical Oceanography (3)

Prerequisites: CHEM 111B, PHYS 152 or 100B, and upper division standing in the College of Natural Sciences and Mathematics or Engineering. (Undergraduates register in GEOL 465; graduates register in GEOL 565.) Physical and chemical oceanography; the carbonate cycle; minor elements and micronutrient elements in sea water; water masses of the oceans; the physical concepts and interpretative theories related to ocean circulation. Letter grade only (A-F). (Lecture 3 hrs.)

570. Special Topics in Geology (1-3)

Prerequisite: Consent of instructor. Investigation of selected topics in geology. May be repeated for credit, with different topics, for a maximum of six units toward any single degree. Seminars with laboratories as appropriate. Letter grade only (A-F).

575. Advanced Topics in Sedimentology (1-4)

Prerequisites: Consent of instructor. Investigation of selected topics in sedimentology such as depositional facies analysis, basin evolution, coastal processes, fluvial processes, advanced stratigraphic analysis, and tectonics and sedimentation. Course content varies from year to year. May be repeated for credit, with different topics, for a maximum of four units toward any single degree. Seminars with labs and/or field work as appropriate. Letter grade only (A-F).

576. Practicum in Geohydrology (3)

Prerequisite: Consent of the instructor; the student should have a fundamental understanding of aquifer mechanics, organic chemistry, stratigraphy, and geohydrology. Solution of actual problems in the areas of water supply and resource contamination. A combination of field techniques, problem approaches, and quantitative analysis will be used to solve comprehensive problems in a fixed period of time to simulate industry conditions. Letter grade only (A-F). (Seminar and field trips, 3 hrs.)

577./477. Hydrogeology (3)

Prerequisites: GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123. (Undergraduates register in GEOL 477; graduates register in GEOL 577.) Hydrologic, geologic, and other factors controlling groundwater flow, occurrence, development, chemistry, and contamination. Elementary groundwater flow theory. Well hydraulics. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.)

578. Groundwater Hydraulics (3)

Prerequisites: GEOL 477/577, MATH 364A. Advanced treatment of groundwater flow through granular porous and fractured media; analytical solutions to groundwater flow problems; hydraulics of wells and aquifer parameter estimation. (Lecture 3 hrs.)

585. Advanced Gravity and Magnetism (3)

Prerequisites: MATH 224, PHYS 152, GEOL 460. Advanced topics in the gravity and magnetic methods of geophysical prospecting. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs., field trips.)

586./486. Engineering Geophysics (3)

Prerequisite: GEOL 460 (may be taken concurrently). (Undergraduates enroll in GEOL 486; graduates enroll in GEOL 586.) Applications of geophysical techniques to the solution of engineering geology and hydrogeology problems. Review of basic geophysical techniques, and identification and utilization of specialized techniques suitable for the solution of specific problems. Applications and case histories in hazardous waste site evaluations, actively subsiding areas, mapping of basement topography, sea water intrusion problems, mapping of the water table, groundwater contamination, and detection of subsurface cavities. Reading and discussion of research articles; preparation of geophysical feasibility studies in selected engineering environments. Letter grade only (A-F). (Lecture 2 hrs., laboratory 3 hrs.; field trips.) Course fee required.

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)

Prerequisite: 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.

GERONTOLOGY

College of Health and Human Services

Director

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Gerontology is the scientific study of the processes and phenomena of aging, including biological, psychological and sociological dimensions. CSULB's Gerontology Program seeks to prepare people of all ages for personal and family aging and for work with older persons

and with those individuals, agencies, organizations, and businesses that work with middle aged and older persons. The Gerontology Program's objectives are:

- To provide a flexible interdisciplinary curriculum that provides new and seasoned professionals with the competencies necessary for success in the field of aging.
- To provide experiential as well as didactic graduate education and professional training in gerontology for individuals planning to become professionals in public and private agencies.
- To provide professional field experiences in gerontology in order to enhance understanding of concepts, themes, and skills related to aging at various life stages, within different gender and racial/ethnic groups and among people with various abilities.
- To provide knowledge and skills necessary to plan, develop, and implement innovative programs to meet the needs of the State's vast and growing aging population.
- To explore aging-related professional values and ethics.

The Gerontology Faculty Interest Group is comprised of about 60 CSULB faculty members representing more than 20 disciplines. Members teach courses essential to the Gerontology Program, conduct gerontological research, and provide training and service. Lecturers and emeritus faculty members also are active in the Gerontology Program. Full time Interest Group members are listed.

CSULB is one of only a few California campuses to offer graduate programs to meet the State's need for educated, experienced and diverse professional gerontologists. To accomplish this goal, two programs of study are offered: A Master of Science in Gerontology and a Gerontology Certificate.

Master of Science in Gerontology (code FCS_MS02)

Interested students should contact Dr. Barbara White at 562-985-1582 or bwhite@csulb.edu

The Master of Science Degree in Gerontology is designed to prepare students with a thorough background in existing theory and research in gerontology, advanced principles of program management, and an enhancement to their baccalaureate preparation for their professional discipline. Students who complete the M.S. in Gerontology will accomplish the following objectives:

1. Acquire advanced education and professional training in gerontology in order to become administrators of state and federal programs, services such as senior centers and retirement homes, businesses, and intergenerational programs.
2. Enhance cultural competence regarding age, gender, race and ethnicity, and/or diverse abilities.
3. Acquire expertise in planning, developing, implementing, and evaluating innovative programs to meet the needs of older persons.
4. Demonstrate the ability to conduct appropriate research.
5. Exercise sound professional judgment based on high ethical standards and expectations.

Admission

To obtain admission to the Master of Science degree in Gerontology the student must:

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:
 - a. Transcripts of all undergraduate and graduate work,
 - b. Three letters of recommendation reflecting academic potential, personal qualifications, sensitivity, motivation, and evidence of ability and motivation to work with older adults and professionals in the field of aging, and
 - c. A current resume,
 - d. 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: a. GERN 400I; b. BIOL 401; c. PSY 365 OR HDEV 357I; d. ANTH 454; e. An approved upper division statistics course.

Retention

1. Maintain a 3.0 or better grade point average in all graduate work completed at CSULB and all graduate work transferred to meet graduate requirements.
2. Continued satisfactory progress toward the degree objective.

Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy.
2. Pass the Writing Proficiency Examination (to be taken during the first term).
3. Complete a minimum of six units of graduate coursework.
4. Enroll during the semester or summer session in which advancement to candidacy takes place.
5. Obtain approval for ones 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: Completion of a minimum of 37 units, with at least 28 units of 500 and/or 600 series courses in Gerontology, including GERN 563, 592, 600, 610, 696, 697 and 698. A maximum of six units may be taken outside the major.

Comprehensive Examination Option: Completion of a minimum of 37 units with at least 24 units of 500 and/or 600 series courses in Gerontology, including GERN 563, 592, 600, 610, 696, 697, and a written comprehensive examination. A maximum of 10 units may be taken outside the major.

Certificate in Gerontology (code FCS_CT03)

Interested students should contact Dr. Barbara White at 562-985-1582 or bwhite@csulb.edu

The Certificate program is designed to train individuals as gerontology specialists within a major area of study. Alumni work in community programs, health services organizations, government agencies, and the private sector.

The Certificate in Gerontology may be earned in conjunction with a baccalaureate degree or awarded subsequent to earning a bachelor's degree. Up to six units of courses taken in the student's major department may be approved to satisfy credential requirements as may general education and elective courses also used to complete the bachelor's degree.

Requirements

1. A bachelor's degree (may be taken concurrently).
2. 24 units distributed as follows: GERN 400I, ANTH 454, BIOL 401, PSY 365 or HDEV 357I.
3. A minimum of six units chosen in consultation with the Gerontology Program Director from a list of supporting courses.
4. Three units of independent study (GERN 497) on a topic related to gerontology.
5. Three units of approved field experience (GERN 492) in a gerontology setting.
6. Early consultation with, and approval by the Gerontology Director for, the individual program of study.
7. Apply for issuance of the earned Certificate at Enrollment Services the term before completion of the baccalaureate and/or Certificate.

Successful completion of the program will result in the Program Director's recommendation for issuance of the Certificate in Gerontology.

Courses (GERN)

400I. Perspectives on Gerontology (3)

Prerequisites: Completion of the General Education Foundation, one or more Explorations courses, and upper-division standing. Multidisciplinary approach to the study of middle age and aging including physiological, psychological, and sociological aspects. Exploration of the effects of culture and of environment on the aging of individuals and groups. Examples of topics include history; demographics; normal and disease-based sensory, cognitive, and health changes; housing and long-term care issues; work, retirement, and income; frauds and scams targeting older adults; and public policy issues. (Lecturer-discussion, 3 hours.)

420./520. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor. Provides an understanding of operations of personal finance as applied to the aging population. Topics include public and private sources of income, living expenses, public and private sources of assistance, personal budget systems, financial planning, legal rights of the aged affecting their personal finances, and financial counseling for the aging. Same course as FCS 420./520. (Lecture-discussion 3 hrs)

*424. Independent Living for Disabled and Elderly Persons (3)

Prerequisite: FCS 321 or 322 or GERN 400I or consent of instructor. Independent living concepts related to physically and/or functionally disabled adults. Personal, environmental and programmatic responses to disability and aging. Activities include individual and group projects and site visits to such locations as an adapted private home, an Independent Living Center, a "special clothing" manufacturer, and a multipurpose rehabilitation center. Same course as FCS *424. (Lecture/Activity, 3 hours.)

***439. Nutrition and Aging (3)**

Prerequisites: FCS 232 or BIOL 207 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 people. Same course as FCS *439. (Lecture-discussion, 3 hours.)

469./569. Disability, Culture and Society: Issues and Social Intervention (3)

Prerequisites: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as REC 469/569 and S W 469/569. Letter grade only (A-F).

***474. Aging and Diversity in California (3)**

Prerequisites: GERN 400I, or consent of instructor. This is an experiential course in which students undertake projects that are meaningful to diverse California elders, that build long-term skills, and that are timely. Professionals in the field of aging discuss their career paths, their local aging networks, and how the diverse physical, social, economic, cultural and political climates of the State and region shape current aging-related events, trends, issues and programs. At least two off-campus field trips are required. (Lecture-activity 3 units.)

***482. Health Assessment of the Aging Client (3)**

Prerequisites: GERN 400I or equivalent and upper division standing or consent of instructor. Assessment of the physical, psychological and social status of the aging client as these factors affect health and well being. Course is designed to assist those working with the aging client in a variety of setting to identify actual or potential health related problems using a variety of tools and techniques. Same course as NRS*482. (Lecture-discussion, 3 hours.)

***485. Mental Health and Aging (3)**

Prerequisites: GERN 400I, HDEV 357I or PSY 365, ANTH 454, and BIOL 401, or consent of instructor. Variations in the mental health status of older adults over time and within subgroups. Discussion of changing societal responses (e.g., how and why diagnoses and assessments of competence shift over time). Exploration of the most frequent mental health issues of older adults. Comparison of medical and non-medical therapeutic approaches to older adults' mental health issues. Two off-campus site visits required. (Seminar 3 hours.)

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 400I, ANTH 454, PSY 365 or HDEV 357I. 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 of 120 hours in which the student assumes a pre-professional role in an agency, business or other community setting. Internship supervisors monitor and evaluate student work based on preestablished criteria stated in the internship contract. The preestablished criteria in the contract consist of objectives developed by the student in consultation with the supervisor. The objectives and the placement site must be approved by the student's faculty advisor and the internship coordinator. Students evaluate the internship at the end of the experience. The course may be repeated for a maximum of six units. Same as FCS 492G. (Seminar 3 hours.)

497. Directed Studies (1-3)

Prerequisites: GERN 400I, ANTH 454, PSY 365, or HDEV 357I, upper-division standing and consent of program director. Independent study under the supervision of a faculty member. Exploration and experience supplementing and/or complementing regular courses. May be repeated for a maximum of six units.

***499. Special Studies (1-3)**

Group investigation of topics of current interest in gerontology. Topics to be announced in the *Schedule of Classes*. May be repeated for a max. of six units of credit with change of topic.

Graduate Level

520./420. Personal Finance for the Aging (3)

Prerequisites: 400-level course in Consumer Affairs or consent of instructor. Provides an understanding of the operations of personal finance as applied to the aging population. Topics include public and private sources of income, living expenses, public and private sources of assistance, personal budget systems, financial planning, legal rights of the aged affecting their personal finances, and financial counseling for the aging. Same course as FCS 520./420. (Lecture-discussion 3 hours.)

550. Social Policy and Aging (3)

Prerequisite: GERN 400I, HDEV 357I 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. Evaluation in Gerontology (3)

Prerequisites: GERN 696, upper division statistics course. Principles, design, and methods of evaluation for use by professional gerontologists. Selection and development of instrumentation for data collection and interpretation, methods of reporting for purposes of accountability. (Seminar 3 hours.) Letter grade only (A-F). Same course as FCS 563.

569./469. Disability, Culture and Society: Issues and Social Intervention (3)

Prerequisites: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as REC 569/469 and S W 569/469. Letter grade only (A-F).

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 six units. Same course as FCS 592. (Seminar 3 hours)

600. Seminar in Administration of Family and Consumer Sciences/Gerontology Programs (3)

Prerequisite: FCS 696 or GERN 696 or consent of instructor. Application of administration, management and leadership theories to family and consumer sciences/gerontology programs. Concepts include structure of organizations, leadership styles, management techniques, methods of analyzing and evaluating business systems, management philosophies and performance evaluation procedures. Activities and assignments focus on organization theory, planning, decision making and control techniques, in relation to leadership and management skills needed for success as a family and consumer sciences/gerontology administrator. Same course as FCS 605. (Seminar 3 hours.)

610. Seminar in Current Issues, Trends and Research in Gerontology (3)

Prerequisite: Completion of all core courses except GERN 696, 697 or 698 any of which may be taken concurrently. Students will undertake literature reviews and/or research to explore emerging issues, trends and research in the field of aging studies and/or update their information on the most current gerontological topics. (Seminar 3 hours.)

696. Research Methods (3)

Prerequisite: Upper division statistics (may be taken concurrently). Methodological approaches to contemporary problems in gerontology; biographical techniques and research; critical evaluation of research (Seminar 3 hours.) Letter grade only (A-F).

697. Directed Research (1-3)

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 (1-4)

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).



GRADUATE DEGREES AND OTHER POST BACCALAUREATE STUDIES

Associate Vice President for Graduate and Undergraduate Programs
Keith Ian Polakoff

Associate Deans for Graduate Studies

Holly Harbinger (Arts)

Simon Kim (Education)

Mihir Das (Engineering)

Dixie Grimmitt (Health and Human Services)

Frank Fata (Liberal Arts)

Henry Fung (Natural Sciences and Mathematics)

Director of MBA Program

H. Michael Chung

Graduate Studies

Graduate study is primarily designed to inspire independence of mind and originality in the quest for knowledge, truth, and useful application. Candidates for a master's degree are required to demonstrate mastery in their chosen field of study either through independent research culminating in an acceptable thesis and/or through successfully passing a final comprehensive examination.

Graduate curricula are designed to provide each student with advanced study in a discipline. All courses listed in a master's degree program, including those outside the major field, must be graduate or upper-division courses approved by the student's graduate committee and department graduate advisor.

Proficiency of a student in any and all parts of a curriculum is ascertained by the faculty of the University. A favorable vote of the faculty is required for a student to receive a master's degree.

A student who plans to become a candidate for a master's degree must hold a bachelor's degree from an 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:

Civil Engineer Degree

Master of Arts Degree in:

Anthropology

Art

Asian Studies

Communicative Disorders

Dance

Economics

Education

English

Family and Consumer Sciences

French

Geography

German

Global Logistics

History

Interdisciplinary Studies

Kinesiology

Linguistics

Music

Occupational Studies

Philosophy

Political Science

Psychology

Religious Studies

Spanish

Speech Communication

Theatre Arts

Master of Business Administration

Master of Fine Arts Degree in:

Art

Creative Writing

Dance

Theatre Arts

Master of Music

Master of Physical Therapy

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:

Aerospace Engineering

Biochemistry

Biology

Chemistry

Civil Engineering

Computer Science

Counseling

Criminal Justice

Electrical Engineering

Engineering
 Engineering Management
 Geology
 Gerontology
 Health Science
 Health Care Administration
 Interdisciplinary Studies
 Kinesiology
 Mathematics
 Mechanical Engineering
 Microbiology
 Nursing
 Nursing/Health Care Administration
 Nutritional Science
 Physics
 Psychology
 Recreation Administration
 Science Education
 Special Education

Ph.D. in Engineering and Industrial Applied Mathematics
 (awarded jointly with Claremont Graduate School)

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. Admission requires a bachelor's degree from an accredited institution, at least a 2.5 grade-point average in the most recently completed 60 units of course work, and a passing score on the University's Writing Proficiency Examination. 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 baccalaureate certificates are listed in the "Undergraduate Programs" section of this catalog. 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 depart-

ment 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

Career Guidance Specialist (Educational Psychology, Administration, and Counseling)
 Community College (Educational Psychology, Administration, and Counseling)
 Chicano and Latino Studies (Chicano and Latino Studies)
 Health Care Administration (Health Care Administration)
 Leisure Counseling (Recreation and Leisure Studies)
 Museum Studies (Art)
 Nurse Practitioner (Nursing)
 Physical Therapy Intern (Physical Therapy)
 Public Management Analyst (Public Policy and Administration)
 Public Sector Employer-Employee Relations and Personnel Management (Public Policy and Administration)
 Public Sector Financial Management (Public Policy and Administration)
 Systems Engineering (College of Engineering)
 Teaching English as a Second Language (Linguistics)
 Russian and East European Studies (Russian Program)
 Transportation Policy and Planning (Public Policy and Administration)
 Urban Executive Management (Public Policy and Administration)

Post-Baccalaureate Studies

Students with a baccalaureate degree who wish to continue their education for personal enrichment or to meet professional needs may do so at CSULB either as a post-baccalaureate student or as a graduate student. A post-baccalaureate student is one who has not declared a master's degree or a credential as an objective but who is nevertheless attending class and participating in academic work at the University beyond the baccalaureate degree. Post-baccalaureate students may only enroll through University College and Extension Services. A graduate student is one who has requested and received formal admission to a specific field of study that will lead to a graduate degree in one of the many disciplines available at CSULB.

Candidates for public school service credentials at the University are advised to familiarize themselves with the requirements for these programs. Descriptions of credential programs appear in the Credential Programs section of this *Catalog* and in the separate departmental sections of this catalog.

Graduate and Post-Baccalaureate Admission Requirements

Graduate and credential applicants may apply with the objective of completing a degree, a credential, or a certificate program. Depending on the stated objective, CSULB will consider an application for admission in one of the three categories:

Graduate Standing — Conditionally Classified

To qualify for admission in conditionally classified graduate standing, a student must:

1. Hold an acceptable baccalaureate degree from an institution accredited by a regional accrediting association or have completed equivalent academic preparation in a foreign university as determined by an appropriate campus authority;
2. Have attained a grade-point average of at least 2.5 (A = 4.0) in the last 60 semester (90 quarter) units attempted;
3. Have been in good standing at the last college attended; and
4. Be accepted into a graduate degree curriculum on a conditional basis, subject to the requirement that any deficiencies must be remedied by additional preparation.

Graduate Standing — Classified

A student who meets the minimum requirements for admission as a graduate student, as specified in the preceding paragraph, may be admitted as a fully classified graduate student pursuing an authorized degree curriculum if the appropriate program authorities determine that he or she satisfactorily meets the professional, personal, scholastic, or other standards for admission to the graduate degree curriculum, including qualifying examinations that the appropriate program authorities may prescribe. Only those applicants who show promise of success and fitness will be admitted to graduate degree curricula, and only those who continue to demonstrate a satisfactory level of scholastic competence and fitness shall be eligible to proceed in such curricula.

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

In order to be admitted to CSULB as either a post-baccalaureate classified student or as a graduate student, the applicant must meet the following requirements:

1. Have earned a baccalaureate degree from an accredited university or college;
2. Have been in good standing at the last institution attended;
3. Have at least a 2.5 grade-point average in the last 60 semester (or 90 quarter) units attempted, independent of when the baccalaureate was granted. The entire term in which the 60 semester (or 90 quarter) units began will be used in this calculation. Lower-division courses or courses taken in extension (except in adjunct enrollment at CSULB in the upper-division level), after obtaining the bachelor's degree, will be excluded from the calculation.

Students wishing to enroll in the University must follow the instructions supplied by the Office of Enrollment Services in the Admissions section of this *Catalog*.

NOTE: Graduating undergraduate CSULB students do not automatically continue as graduate students. They must apply under the same conditions as non-CSULB students.

Once applications are received, they will be evaluated at appropriate offices. To be admitted to the University, a student must also be admitted to a specific program. The University does not admit post-baccalaureate students who do not have a degree, certificate, or credential objective. Provisional admission is granted to applicants anticipating their baccalaureate degree prior to registration but subsequent to filing the application. Proof of the baccalaureate is mandatory (final transcript must be on file) prior to the student's second semester of attendance. If it is not, provisionally admitted students will be prohibited from future enrollment until such proof is on file.

The student must request all institutions of higher learning attended (except for CSULB) to send an official copy of transcripts directly to the Office of Enrollment Services and to the department advisor of graduate studies. Transcripts presented to the Office of Enrollment Services by the student are not acceptable. Graduates of California State University, Long Beach must follow these same procedures when making application to a graduate degree program.

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who possess a bachelor's degree from a postsecondary institution where English is not the principal language of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). Some programs may require a higher score.

Admission to a Department as a Graduate Student

In order to pursue a credential or master's degree, students must be accepted by the department or college offering the degree program. In some instances (see specific department listing) this process may require making a separate 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.

On the other hand, 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 proviso that all remaining admission requirements of the program must then be fulfilled after enrollment. Only the Associate Vice President for Graduate and Undergraduate Programs or his/her designee is authorized to grant conditional admission to a student who does not meet University requirements, and such action will be taken only in rare and compelling circumstances.

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 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.

Requirement in Writing Proficiency

All students must demonstrate competency in writing skills. This is done by passing the Writing Proficiency Examination (WPE) or approved alternative examination. Information on this requirement may be obtained from Testing and Evaluation Services.

Demonstration of Writing Skills Competency as a Requirement for Advancement to Candidacy for a Master's or Doctoral Degree:

1. To qualify for advancement to candidacy for a master's or doctorate, each student must be certified proficient in written composition in English. Proficiency must be demonstrated by passing the University's Writing Proficiency Examination, or the approved equivalent as determined by the College. The responsibility for developing the skills necessary to pass the examination is the student's.
 - a) Students who are certified as having met this requirement previously in their baccalaureate program are exempt. There is no expiration for the prior certification.
 - b) The writing proficiency test, or the approved equivalent, shall be used for candidates at the graduate level.
 - c) The required achievement level shall be at least the same for graduate students as it is for baccalaureate candidates.
 - d) Every master's or doctoral candidate must attempt the examination during the first semester in residence at CSULB, unless a graduate student has been previously certified as having satisfactorily met the writing proficiency requirement.
 - e) The examination may be attempted as many times as necessary, but no more than once a semester or three times a year (including the Summer Session).
2. The University Committee on Writing Proficiency has the responsibility of approving examinations to be used to demonstrate writing proficiency, of overseeing the administration and grading of the examinations, and of certifying to the Office of Enrollment services that a student has met this requirement for advancement to candidacy.
3. Use of the test must be consistent with the approved Policy Statement on "Writing Proficiency."

Implementing Procedure

1. For the details of implementation of the general University Writing Proficiency Examination, see the approved Policy Statement on "Writing Proficiency."
2. The University's graduate programs suggest meeting with the WPE Advisor (contact the Learning Assistance Center) to plan appropriate strategies to develop the necessary writing skills. Such strategies may include:
 - a. enrolling in regular university courses in writing on a voluntary basis;
 - b. enrolling in courses in the discipline which develop writing skills;

- c. enrolling in special courses offered through University College and Extension Services;
- d. getting tutorial help from student organizations which provide assistance;
- e. securing tutorial help from the Learning Assistance Center;
- f. enrolling in writing courses in a community college.

3. Graduate students entering the University beginning in Spring 1995 will not be permitted to enroll in a second or subsequent semester unless they have previously satisfied the approved Writing Proficiency requirement or attempted the University Writing Proficiency Examination during their first semester of enrollment.

Second Master's Degree

A graduate student who is currently enrolled in a master's program at CSULB must complete that master's program before enrolling in courses for another degree. A graduate student who already holds a master's degree from this or any other accredited institution but desires to become a candidate for a second master's degree in a different field is subject to the following regulations:

1. All admission requirements of the University and college or department must be met (all general regulations listed in the *Catalog* apply to the second master's degree);
2. Enrollment and approval of candidacy for the second degree will be granted only after the first degree has been completed and awarded;
3. All requirements for the new degree must be completed;
4. After awarding of the first master's degree, a minimum of 24 units of graduate residence credit must be earned at this University including the minimum of 500/600-series units mandated by the major department in which the student is earning the second master's degree;
5. No more than six units earned on the first degree may be applied to a second master's degree;
6. Prerequisites for an advanced course must be completed prior to enrollment in the advanced course. An instructor may disenroll a student who does not provide evidence of adequate preparation;
7. All prerequisites must be completed prior to application for candidacy;
8. Two master's degrees cannot be awarded concurrently;
9. The area or discipline in which the second degree is earned shall be designated on the transcript and a second diploma awarded.

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 exceed 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 Associate Vice President for Graduate and Undergraduate Programs 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 a Petition to Change Objective from the Office of Enrollment Services, obtain the required department/program signatures, return the completed petition form to Enrollment Services, and 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

Students who have been admitted to candidacy for an advanced degree and who complete no courses at this University within a calendar year without filing an approved request for educational leave will be withdrawn from the graduate degree program.

If a student wishes to resume graduate study after withdrawal, the student must reapply to the University and request that the department or college initiate a petition to the Associate Vice President for Graduate and Undergraduate Programs or his/her designee to reinstate the student in his or her former graduate program. In the absence of an approved petition for reinstatement, 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.

All regulations involving a calculation of grade-point average subsequent to admission to the University as a graduate student shall be based on the following common practices and standards.

"Overall Graduate Grade-Point Average" shall be calculated on all upper-division and graduate-level coursework attempted by a student at this University after completion of a baccalaureate degree.

Grade-point average standards calculated on the basis of a smaller range, grouping, or set of upper-division and graduate-level courses, for example, "courses in the major" or "courses taken since admission to the degree program," presuppose that the student has met the minimum standard for any larger range, group, or set, including the Overall Graduate Grade-Point Average.

1. A student pursuing the master's degree must maintain an Overall Graduate Grade-Point Average of 3.0 (B). Exceptions to the 3.0 (B) Overall Graduate Grade-Point Average may be made only on the recommendation of the departmental faculty offering the degree, the college dean or designee, and approval by the University Graduate Council.
2. At least a 3.0 (B) average must be maintained in the major.
3. No course with a grade lower than "C" may be applied toward the fulfillment of degree requirements.
4. Graduate students cannot repeat courses either for credit or to improve their grade-point average.
5. The individual course of studies (student program) for the master's degree must contain a minimum of 30 units in upper-division and graduate courses.

Some degree programs require additional units. Please consult individual degree program requirements.

A minimum of sixty percent of the units required for the degree shall be in the 500- and 600-level series and these shall be completed at this University, consistent with departmental requirements. Student teaching cannot be

included in any master's degree program. All upper-division courses marked with an asterisk may be included in the master's degree programs of the department listing the course. With permission of the student's department graduate advisor, asterisk-marked courses may also be used on other graduate degree programs, when appropriate. Normally, other non-marked courses are not used.

6. A thesis and/or final comprehensive examination must be completed. A minimum of four and a maximum of six semester units shall be allowed for a thesis. Failure of the comprehensive examination or thesis requirement is failure of both options. Thus, a student failing the comprehensive examination may not proceed to the thesis option or vice versa. Once a student has completed a semester of enrollment towards 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 faculty concerned, the department chair, and the appropriate dean or designee.
7. No fewer than 24 semester units shall be completed in residence at the University. The Associate Vice President for Graduate and Undergraduate Programs or his/her designee Studies may authorize department/college approved substitution of credit earned by alternate means for a part of the residence requirement. Units, including continuing education or extension units, accepted by transfer for application toward the minimum units required for a master's degree cannot be used to fulfill the minimum unit requirements in the 500/600 series. This 500/600 unit requirement must be completed in the major discipline and in residence at this University.
8. All requirements of the degree program must be completed within seven years of the date the student program was initiated, i.e., the date (semester) when the earliest course appearing on the student program was completed. An extension of time beyond the limit may be granted by the Associate Vice President for Graduate and Undergraduate Programs or his/her designee if warranted by individual circumstances and if the outdated work is validated by comprehensive examination in the relevant course or subject field work, or such other demonstration of competence as may be prescribed by the department and/or college.
9. A graduate student who expects to receive a degree at the end of any semester or summer session must be enrolled during that semester or session and must complete the Request to Graduate Form well in advance. The appropriate request for Spring or Summer candidates must be filed by the preceding October 1; for Fall 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.

Note: Graduate Studies 700 may only be used to fulfill the enrollment requirement if the applicant has completed all degree program courses prior to the semester of graduation. An incomplete grade not otherwise resolved prior to graduation will automatically revert to the letter grade indicated on the "Requirements for Assigning an Incomplete

Grade" form. A course with an unresolved grade of SP (Satisfactory Progress) will remain on the transcript but will be removed from the student's program of study. Incomplete grades may not be resolved following graduation.

10. Proficiency of a student in all parts of a curriculum is determined by the faculty of the University. A favorable vote of the faculty is required for a student to receive the degree.

The Program

A student must consult with the graduate advisor of the department or college to prepare a tentative degree program. After completing prerequisites and other requirements, the student must formulate an official student program and apply for advancement to candidacy.

The department will assign the student a faculty advisor who must be consulted about preparing a degree program. The advisor should have an official evaluation of the student's previous work from the Office of Enrollment Services, although transcripts provided by the student may be used to develop a tentative student program and discuss degree requirements. When the Office of Enrollment Services' evaluation and the results of tests are available, the faculty advisor can assist the student in drawing up a student program. This student program must be approved by the student's faculty advisor, the departmental graduate advisor, and college dean or director of graduate studies or, for Interdisciplinary Studies, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. 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 check 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 *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 or, for Interdisciplinary Studies, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Advancement to Candidacy

Advancement to candidacy is the next step after achieving classified status and confers the equivalent of catalog rights on graduate students. Advancement to candidacy also signifies approval of a plan of study by the student's major department and college or, in the case of an Interdisciplinary Studies graduate student, approval by the Director of the Interdisciplinary Studies Program and Associate Vice President for Graduate and Undergraduate Studies or designee. The prerequisites to advancement to candidacy are:

1. Classified status;
2. Satisfactory completion of the CSULB Writing Proficiency Examination requirement. Information is available in Testing and Evaluation Services (Brotman Hall 216);
3. A minimum 3.0 overall grade-point average and a 3.0 grade-point average in all units undertaken for the student program (at least 6 units);
4. Enrollment in regular session.

All graduate students are required to advance to candidacy when the above prerequisites have been successfully completed. Advancement to candidacy is to occur at least one semester or summer session prior to the semester (session) in which the student expects to graduate. It must occur prior to a student filing the Request to Graduate form with the Office of Enrollment Services. Filing deadlines are the same as for baccalaureate degree candidates. A student must be enrolled in the semester or summer session in which advancement to candidacy takes place. All students must consult with their graduate advisor regarding advancement to candidacy as well as to determine any departmental requirements to graduate from the University.

An approved graduate student program remains in effect as long as a candidate is making satisfactory progress. To insure minimum satisfactory progress toward the degree objective, the student must enroll in at least one session during any 12-month period and complete all degree requirements within seven years after completion of the first course on the student program. See also information about Graduate Studies 700 later in this section. The student may not change the graduate major without filing a new application for admission. If admitted to the new discipline, the student must then follow the steps indicated above for obtaining approval of a new student program and advancement to candidacy.

A student entering military service after having been advanced to candidacy will not be considered as having withdrawn from candidacy, provided that the student is inducted, enlisted, or called to active duty during a semester in which enrolled or not more than one semester thereafter, and provided that the student enrolls for work toward a degree within one calendar year of the date of 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. Such students must reapply when returning to the university, but the application fee will be waived.

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 or the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. 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 stu-

dent 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 advanced to candidacy will be held responsible for the regulations governing master's degrees in effect at the time of advancement or at the time the last requirement for the degree is met, whichever is more conducive to the student's course of study. 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*.

Educational Leave

Any registered student, undergraduate or graduate, in good academic standing may request an Educational Leave. Students requesting an Educational Leave shall complete an Educational Leave Form in the semester before the leave is effective, 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 student's department chair (undergraduate) or graduate advisor.

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

Students returning from an approved educational leave are required to submit an application form but will not be required to pay another application fee. Students returning from an absence for which an educational leave was appropriate but not approved, in advance, must pay another fee.

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

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 requirements (seven years for graduate students).

For the period of an educational leave the student's rights under the Election of Regulations rule are preserved, maintaining the right of students to elect regulations as if they had maintained continuous attendance.

Students who fail to enroll in two or more consecutive semesters place themselves in jeopardy under the continuous enrollment provisions of the election of regulations rules. This includes the automatic loss of "advanced to candidacy (candidate)" status. Moreover, students who break residency and lose candidate status do not have a presumptive right to reinstatement of their candidacy. These students will be required to go through the process of readvancement.

An educational leave presupposes no expenditure of University resources or faculty and staff time in 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.

Comprehensive Examination

Each department or college 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 department in preparing questions, administering, and reading the examination. Through the comprehensive examination, the faculty provides an opportunity for the master's degree candidate to demonstrate analytic ability and knowledge of the discipline. Working with the department chair or dean of the college and the appropriate committee, the departmental graduate advisor usually assumes responsibility for scheduling the examinations and for selecting the other faculty members to participate.

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.

During the first semester of residence, the graduate student should ascertain from the faculty advisor what preparation will be expected. Early in the final semester of study for the degree, the candidate should contact the departmental graduate advisor to make arrangements for taking the examination. The department or college will notify the Office of Enrollment Services whether the student has passed or failed the final comprehensive examination. A candidate who has failed will usually be allowed to take the final comprehensive examination a second time, and the departmental graduate advisor should be contacted for specific procedures for the second attempt. To award a candidate the master's degree for a particular semester, the results of the comprehensive examination must be reported to the Office of Enrollment Services prior to the end of the semester.

Theses and Projects

A student may enroll for Thesis (course 698 or 699) only when that student has been advanced to candidacy for the degree or when advancement to candidacy will occur in the semester of initial enrollment in Thesis.

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, including the chair of a committee for an interdisciplinary studies degree, 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 appropriate department graduate advisor and the college associate dean or director of graduate studies. 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. The committee shall be responsible for the guidance of the student throughout the thesis effort. Any change in the composition of the committee requires justification and must be approved by the appropriate department graduate advisor and college associate dean or director of graduate studies.

Before agreeing to serve on a thesis committee, the prospective members will review the thesis topic and determine that they possess the requisite expertise to serve on such a committee, and that sufficient resources and materials exist and are reasonably available to the student to support such a study.

Thesis committee members will review the research competence of the thesis student before approving a thesis proposal.

Thesis committee members will advise and direct students in their thesis work and ensure that the thesis meets the standards and definition of a thesis specified above.

Thesis committee members will determine the grade to be awarded for completion of the thesis; and by signing the thesis signature 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.

Thesis committee chairs will be the major contact point with the student and will oversee the other committee members' work with the student.

Thesis committee chairs will assure that the editorial and format standards appropriate to the mechanical preparation of a thesis are followed.

Thesis committee chairs will establish guidelines for the student and timetables to be followed to ensure completion of the thesis in a reasonable time.

Thesis committee chairs will arrange for the oral defense of the thesis when required.

The thesis committee chair is responsible for canvassing the committee and reporting the grade agreed upon by its members. After the completed thesis has been reviewed by the University Thesis Office for conformance with prescribed format criteria and the approval page has been signed by the committee and by the dean or department chair, as appropriate, the final grade will be submitted.

Thesis Office

All theses must be acceptable for deposit in the University Library. The Thesis Office in the 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 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 the University Library). The Thesis Office also conducts periodic workshops on how to prepare a thesis 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 an overall 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 an overall 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 overall 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 Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Graduate and post-baccalaureate students are subject to disqualification if while on probation they fail to earn sufficient grade-points to be removed from probationary status. Disqualification will bar a graduate student from registering as a matriculated student at this campus. Furthermore, subsequent removal of GPA deficiencies by enrolling through UCES or at another university does not guarantee readmission to CSULB. A graduate student who has been disqualified must file a new application and be accepted by the department or college offering the desired degree program.

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 petitioner's 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.

Grievance Procedures

I. Statement of Governing Principles

A. A graduate student may only file a grievance based on an alleged violation of specific University regulations or policies or accepted principles of due process and only if another specified remedy (such as the University Grade Appeal Policy in the case of all course grades) does not exist.

B. A grievance may not be filed on the basis of a graduate 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.

C. A grievance must be initiated within one calendar year of the alleged violation.

D. Graduate programs should make every effort to obviate the possible causes of a grievance in advance by developing clearly written statements of procedures and standards governing decisions that affect graduate students, such as admission into a program, dismissal from a program, administration of comprehensive examinations, selection for field experience, et cetera. Graduate programs should also have in place a mechanism, such as an appeals committee, to provide due process review at the local level when a graduate student so requests. Due process review is an evaluation of the procedures and standards followed in arriving at a decision; it should be conducted by qualified members of the faculty who were not involved in making the original decision. The purpose is not to second-guess the original decision, but rather to make certain that the appropriate procedures and standards were applied in a manner free of arbitrary, prejudicial, or capricious behavior.

E. Final decisions affecting graduate students should be made only on substantive grounds by the personnel who are most qualified professionally, namely the faculty offering a particular graduate program. When subsequent review shows that appropriate procedures or standards have not been followed in arriving at a decision affecting a graduate student, the preferred remedy is to remand the case back to the faculty of the graduate program for their reconsideration.

An error in procedure should not become grounds for reversing a substantive decision. In the event that the faculty of a graduate program persist in a failure to follow appropriate procedures or standards, the Graduate Council will consider that situation as an indication that the program should be reviewed for suspension or discontinuance.

II. Informal Resolution

A formal grievance may be filed by a graduate student only after the student has first sought to resolve the grievance by informal means. The graduate student should begin by contacting the chair or director of the program offering the degree, explaining the nature of the perceived problem, and requesting reconsideration of the decision. If the chair or director was directly involved in the original decision or denies the student an opportunity for due process review at the local level, then the student should seek informal resolution through the college's Associate Dean for Graduate Studies.

III. Formal Resolution

A. If an attempt at informal resolution is unsuccessful, a graduate student may file a formal grievance with the Associate Vice President for Graduate and Undergraduate Programs or his/her designee. The grievance must be filed in writing within 30 calendar days of the time when informal resolution was unsuccessful. The grievance must include a full statement of the graduate student's evidence that a University regulation or policy or an accepted principle of due process was violated, as well as an explanation of the efforts made to seek informal resolution. The Associate Vice President for Graduate and Undergraduate Programs or his/her designee will verify that a good-faith effort at informal resolution was attempted by the graduate student and that no more than one year has elapsed since the alleged violation occurred.

B. If these conditions have been satisfied, the Associate Vice President for Graduate and Undergraduate Programs or his/her designee will forward the grievance to the Steering Committee of the Graduate Council.

1. If a member of the Steering Committee is a faculty member of the graduate program involved in the grievance, that member of the Steering Committee shall be replaced by another member of the Graduate Council, elected for that purpose, whenever the committee considers any matter related to the grievance.

2. The Steering Committee will forward a copy of the grievance to the chair or director of the graduate program, requesting that a written response be submitted to the committee within 20 working days of receipt of the grievance.

C. When the Steering Committee receives the written response to the grievance, it will determine whether there is sufficient evidence to render a summary judgment or whether the grievance merits further review. The Steering Committee may decide:

1. That there is not sufficient evidence of a violation of a University regulation or policy or an accepted principle of due process and dismiss the grievance; such a decision shall be final, unless further review is granted by the President.

2. That there is sufficient evidence of a violation of a University regulation or policy or an accepted principle of due process to warrant immediate remanding of the grievance to the graduate program, with explicit instructions concerning the violation that must be corrected during the graduate program's reconsideration of the case.

3. That the evidence in the case is such that further review is required; in such an instance the Steering Committee shall notify both the grievant and the graduate program in writing of the additional evidence the committee wishes to see and whether that evidence should be provided in writing or in personal testimony before the committee.

D. If the Steering Committee seeks evidence by means of personal testimony, the meeting at which such testimony is presented shall be conducted in the manner of any other academic committee meeting and not as a formal hearing; both the grievant and the graduate program shall be given appropriate opportunities to present their views, but the meeting shall be conducted as an inquiry by the committee members, and not as an adversarial proceeding; there shall be no cross-examination.

E. All meetings at which the Steering Committee considers a grievance shall be closed to the public; the committee shall keep minutes of the meeting, but it need not tape-record its proceedings, nor shall a transcript be prepared.

F. When the Steering Committee is satisfied that it has obtained sufficient evidence to make a determination in the case, it shall make its decision in accordance with the provisions of Paragraph III.C.1 or III.C.2 above.

G. The Steering Committee shall report to the Graduate Council on the issues involved in the grievance and on its determination of the case, without identifying the graduate student who filed the grievance.

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 Transfer Units by Extension

At the option of the college or department offering an advanced degree requiring a total of thirty units, up to six units of approved extension/continuing education or transfer credit is acceptable on graduate student programs. At the option of the college or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/continuing education credit if taken at CSULB. These limits may be increased further for graduate degrees requiring more than 30 units provided that (1) no graduate degree may be awarded by CSULB unless at least 24 units are taken in residence, and (2) no graduate student program may use either extension/continuing education or transfer credit to satisfy the requirement that at least 60 percent of the total units be taken at the 500 and 600 levels. Extension courses completed at campuses including California State University, Long Beach shall be acceptable within the six-unit transfer limit, provided the work can be properly evaluated and the course is acceptable as graduate work for an equivalent graduate degree on the campus where taught. Extension/continuing education and transfer course material shall be evaluated and approved by CSULB faculty teaching in the topic area in conjunction with the department graduate advisor and college associate dean or director of graduate studies. Final approval/disapproval shall be the responsibility of the Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Extension/continuing education credit may not be used to reduce the minimum units required in a discipline for a master's degree, that is, extension credit may be used to complete coursework required outside the discipline. Excess grade points earned in extension classes may not be used to offset a grade-point deficiency in the total graduate record.

Grades earned at another institution may not be used to offset grade-point deficiencies in courses taken at this University. However, grades of "C" earned at another institution in courses transferred to satisfy subject matter requirements for

an advanced degree at this institution must be balanced by grades of "A" at this University to meet the required 3.0 ("B") overall average.

Credit earned by correspondence or by examination cannot be used to satisfy master's degree requirements.

Graduate Studies 700

Registration in Graduate Studies 700 (GS 700) is restricted to graduate students who have completed all other course work and who have been advanced to candidacy, have departmental and college approval, and require additional utilization of University facilities to complete their thesis or comprehensive examination. Although no unit credit is added to the student's program or transcript, the course is considered as one unit of concurrent enrollment credit for fee payment purposes. Students must be registered either in a course or in GS 700 for every semester in which they plan to use University facilities or consult members of the faculty. Registration is also required in winter or summer session if that is when a student plans to graduate. Application forms are available from and must be signed by department graduate advisors. Students must be familiar with the rules governing residency (see previous section on Advancement to Candidacy).

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 16 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

The Graduate Dean's List of University Scholars and Artists

The Graduate Dean's List provides for University recognition of its most outstanding graduate students. Candidates for this honor will normally have completed the coursework applicable to their graduate student programs at the 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 Associate Vice President for Graduate and Undergraduate Programs or his/her designee.

Departmental Graduate Student Honors

In recognition of outstanding graduate student achievements, departments may honor graduating master's degree candidates by special recognition in the annual commencement ceremonies. Departmental graduate student honors are reserved throughout the University to two students (or a maximum of ten percent) from a department. Departmental graduate student 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 field work and in University committees and functions, as well as participation in scholarly and professional organizations resulting from student research.

HEALTH CARE ADMINISTRATION

College of Health and Human Services

Program Director

Harold R. Hunter

Department Office

Applied Arts and Sciences Faculty Office (ASFO) - 14

Telephone

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Professor

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Harold R. Hunter

Associate Professor

Janice Frates

Assistant Professor

Cynthia Saunders

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Advisory Council

Marika Bonner, Executive Director and CEO, Orange County Medical Association

Ralph Cygan, MD, CEO, UC Irvine Medical Center

Rick Desai, Regional Director of Managed Care, Tenet Health System

Jeffery Davis, Executive Vice President, Universal Care

Sam Ervin, CEO, SCAN (retired)

George Goldstein, President, Molina Medical Centers

Mike Lesnick, Principal, Kellogg & Andelson

Robert Lounsbury, So. CA Permanente Medical Group, Kaiser-Permanente

Nancy Monk, Director of Government Relations, PacifiCare of California

Peter Moren, Counsel, Health Net

Robert Nelson, Senior Vice President, UniHealth (retired)

Peter Pellerito, Business Manager, So. CA Permanente Medical Group, Kaiser-Permanente

Robert Perkins, Account Executive, QuadraMed

Ramon Reevey, Director, Veterans Administration Medical Center

Herbert Rosenzweig, Director, Health Care Agency of Orange County

John Smithhisler, CEO, St. Mary Medical Center

Dirk Thornley, Vice President, California Physician Groups Council

Kevin Torres, Vice President, Memorial Medical Services

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Health Care Administration program has four major objectives: (1) to provide course work and related experience in order to prepare administrators, skilled in the application of organizational and managerial techniques, for the health care system; (2) to provide continuing education for health administrators in practice as well as others in administrative and leadership positions in the management and the delivery of health services; (3) to consult and to participate in community service activities which complement the instructional and research functions of the faculty and provide appropriate learning experiences for students; and (4) to conduct studies in the administration and operation of the health care delivery system which will contribute to development of faculty teaching abilities and overall professional growth.

The program is designed for the professional administrator or those who wish to become administrators within organizations which deliver personal health care services. Three patterns of preparation are offered:

1. Master of Science in Health Care Administration;
2. Certificate in Health Care Administration.
3. Bachelor of Science in Health Care Administration

The schedule of graduate and undergraduate courses offerings is in the regular *Schedule of Classes*.

Bachelor of Science in Health Care Administration (code HCA_BS01) (124 units)

Requirements for Admission

Prerequisites

1. Undergraduate students are required to pass the Writing Proficiency Exam (WPE) prior to declaring Health Care Administration as their major.
2. All students must complete a minimum of 15 semester units or the equivalent in prerequisite preparatory courses for the major: ACCT 201, ECON 101 or 300, I S 240, SOC 250 (or equivalent) and BIOL 200 (or equivalent). Computer proficiency in word processing, spreadsheet, database and presentation software is expected. Business calculus (MATH 115) is recommended.
3. An overall grade point average of 2.0 or higher is required for entrance into the program. A minimum grade of "C" is required for each prerequisite course.

Requirements

1. Complete the requirements for General Education;
2. Complete the prerequisite courses;
3. Complete the major core course requirements: HCA 341, 353, 402, 410, 416, 465, 480 and HSC 150.
4. Upper Division (required courses): A minimum of 15 additional units from the following: HCA 312, 320, 340, 422I, 450, *451, 452, 470I.
5. Complete the electives as needed, to total 124 semester units, a minimum of 40 units in the upper division.

6. Successfully complete the University Writing Proficiency Examination;
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.

Master of Science in Health Care Administration (code HCA_MS01)

The goal of the M.S. in Health Care Administration program is to prepare men and women to enter administrative positions in hospitals and ambulatory, managed care, long-term care, and mental health settings as well as in multi-institutional system central offices, governmental health agencies, and other health related organizations. Students completing the M.S. in Health Care Administration will achieve the following objectives: (1) Demonstrate knowledge of the U.S. health care system and fundamental issues affecting the administration of health care services, (2) Demonstrate organizational and managerial knowledge and skills essential to administrative positions in health care services, (3) Demonstrate specialized knowledge and skills in one of a variety of functional areas in health care administration, including financial management, marketing, job analysis, compensation management, or public policy analysis, (4) Use ethical principles within administrative positions of responsibility in health care services, and (5) Demonstrate the ability to conduct studies in the organization, financing, administration, and operation of health care delivery systems in operational settings. The program is designed for persons with a variety of undergraduate experiences who give evidence of interest and potential success in health care management or research.

Admission Requirements

Each applicant should request that a copy of all college course work and GMAT scores be sent to the graduate advisor, Health Care Administration Program, in addition to the copies required by the Office of Admissions and Records. In addition, a current resume should be sent to the Program along with three letters of recommendation.

Admission Criteria

1. Baccalaureate degree from an accredited institution;
2. Baccalaureate degree with a minimum of 18 units of course work to include: accounting, financial management, economics, information systems, and statistics;
3. 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 Program Graduate Committee.
4. Interview with member of faculty or preceptor may be required.
5. A current and complete resume including references.
6. Submission of scores on recent Graduate Management Admission Test (GMAT).

Prerequisites

The following courses or their equivalent:

1. ACCT 201
2. ECON 101 or 300
3. Statistics
4. I/S 233 (or equivalent)

Students should contact the Program director for a determination of deficiencies and required remediation.

Requirements

1. Completion of graduate level course work in Health Care Administration. HCA 451, 502, 505, 506, 508, 510, 515, 524, 530, 535, 550, and 695.
2. Completion of any one of the courses in site specialization: 536, 537, 538, or 552.
3. Completion of an approved elective course.
4. Completion of an approved project and internship (HCA 685 and 698), for a minimum of 44 units.

Advancement to Candidacy

Students will be instructed to apply for advancement to candidacy after:

1. Completion of 6 units of course work that applies to the degree with an average grade of "B" or better,
2. Passing the Writing Proficiency Examination and submit evidence of same to Department Office, and
3. Approval of Program Director.

Postbaccalaureate Certificate in Health Care Administration (code HCA_CT01)

The Certificate Program in Health Care Administration is comparable to a minor of 18 semester units and, with prerequisite course work, may require up to 24 semester units for completion. 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 and is conferred as a post-baccalaureate certificate (or concurrently with the BS/BA). The courses included in the MS curriculum (with a grade of "B" or better) may apply toward the MS at the discretion of the Program Director.

Health care administrators are usually prepared at the masters' degree level for job entry into upper management. There is, however, increased emphasis to prepare health care professionals to function as managers at other levels as well. Increasingly, physicians are also seeking preparation in the elements of management. These diverse groups use management skills in the health services and related fields. These include hospitals, nursing homes, health departments, health maintenance organizations, health planning and regulatory agencies, health management and review companies, group medical practices, health insurance firms, pharmacy and medical companies.

Requirements

1. A bachelor's (conferred or expected) or advanced degree;
2. Consultation with the Director of the program;

- A minimum of eighteen units are required and may include: HCA 312, 341*, 353+, 402, 410 or the equivalent graduate course if applicable (i.e., HCA 502, 505, 510, 515, 530).

* Prerequisite: ACCT 201

+ Prerequisites: ECON 101

Course substitutions may be made with the consent of the Director.

Master of Science in Nursing/Master of Science in Health Care Administration (code NRSGMC01)

The Department of Nursing and Health Care Administration Programs offer a concurrent Master of Science in Nursing and Master of Science in Health Care Administration dual degree available to qualified students who desire advanced preparation in the areas of nursing and health care administration with a practice focus as Advanced Practice Nurses in administration. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two degree programs each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines. The joint Master of Science in Health Care Administration and the Master of Science in Nursing provides the opportunity for students to specialize as advanced practice nurses with emphasis in administration and increasing competence in designing, implementing, and evaluating programs in preparation for serving in various health organizations. An important career path for advanced practice nurses is as nurse executive in the variegated segments of the health care industry including entrepreneurial activities. Courses are interdependent and have been structured to provide clinical depth in the areas of nursing and administration.

Each applicant should request that a copy of official transcript of all college course work be sent to the Nursing Department Graduate Advisor and to the Office of Admissions and Records.

Admission Requirements

- Bachelors degree in nursing or currently enrolled in accelerated RN to Masters program. Those nurses with Baccalaureate degrees in health related fields may be conditionally admitted.
- Current license to practice as a registered nurse in California.
- Admission to graduate standing at the University
- An upper division or graduate course in biostatistics (H/SC 403 or ED P 419).
- Public Health Nurse Certificate, or eligibility for certificate in California.
- An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis.

- Submission of quantitative and verbal scores from the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT).
- Three letters of recommendation from persons with whom the applicant has worked and who has direct knowledge of the applicant's qualifications.
- A separate personal statement of applicant's reasons for pursuing this field of study and comments about interests and experiences which are germane to career objectives.
- Current professional resume describing the applicant's relevant experience.

Advancement to Candidacy

A joint committee, consisting of Nursing and Health Care Administration faculty involved in the program, will review files and make a determination to advance the candidate to graduate status. Student criteria for advancement are as follows:

- Satisfy the general University requirements for advancement to candidacy in Nursing and Health Care Administration
 - Pass the Writing Proficiency Examination
 - Have at least a 3.0 grade point average for all course work attempted as a graduate student
- Joint approval by the Department of Nursing and Health Care Administration and the Associate Dean in the College of Health and Human Services.

Requirements for Completion

- A minimum of 57 units of approved Nursing and Health Care Administration upper division and graduate level courses including:
The Program of Study: NRSG 559, 560, 596, 680A, 680B, 680C, 680AL, 680BL, 680CL, 698, HCA 502, 505, 510, 515, 524, 530, 535, 550, 698
- An overall GPA of 3.0 or better in all courses.
- Directed project or a thesis.
- *Graduate degrees obtained previously may be accepted toward meeting a portion of the unit requirements of the concurrent MSN/MSHCA degree program.
- If a student after entering the concurrent MSN/MSHCA program returns to a single degree program, all requirements for the single degree program must be met.

* 60% of units must be earned in residence

Courses (HCA)

Lower Division

202. Introduction to Health Care in America (3)

Prerequisites: Completion of GE Foundation requirements. This course examines the structure of the current health care system including the services, financing, political, and social forces that influence its organization. Contemporary health issues such as cost, quality, and access are introduced and discussed within the context of current health care organizations. Access and diagnostic/treatment differences of ethnic minorities including African American, Asian, Latino, Native American and other groups, as well as gender disparities including sexual orientation will be discussed. Traditional grading only.

Upper Division

312. Health Personnel Management (3) S

The management of human resources in health care settings. Content includes principles and methods of personnel work such as employee recruitment, selection, retention, training, evaluation, wage and salary administration, and labor-management relations. (Lecture)

320. Operations Management in Health Administration (3) S

Prerequisite: Statistics or equivalent. The application of the concepts and methods of operations management to the health care organizational setting. Emphasis on planning and control in the management process. Letter grade only (A-F).

340. Legal Aspects of Health Administration (3) S

Focus on the nature, perspective and objects of the legal and legislative process. Provides skill in understanding legal terminology, legal reasoning and the tools of the law, with practical application of these principles and concepts to health care management and health policy decisions.

341. Financial Management of Health Care Institutions (3) F,S,SS

Prerequisite: ACCT 201. Application of the concepts of financial management within health care organizations, to include financial planning principles, reimbursement procedures, governmental regulation, and legal restraints. (Lecture)

353. Marketing for Health Services Organizations (3) F,S

Prerequisite: ECON 101 or 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).

402. The Health Care System (3) F,S,SS

The course focuses on the contemporary health care system to include its historical beginnings and the underlying social and biological forces which influence its organizational forms, financing and manpower requirements; issues and concerns molding its future such as the assurance of the quality of patient care and the regulation and control of the system. (Lecture)

*410. Health Management and Organization (3) F,S

Concepts of organizing activities to achieve the goals of health care institutions. Effects of environment, technology, and human behavior on organizational design. Managerial processes including planning, decision-making, influencing, and controlling required to operate and change health care organizations. (Lecture)

416. Management and Information Systems (3) F,S

Prerequisite: Demonstrated Computer Literacy. Evaluation of concepts, analysis and design of management information systems; management decision models, strategies for implementing system changes.

422I. Global Issues in Health Services (3) F,SS

Prerequisites: Completion of the G.E. Foundation, one or more Exploration courses, and upper-division standing. Contemporary problems in health services developed as an interrelated system. Rural health problems, issues of the elderly, rising costs and new technology presented with reference to industrialized and non-industrialized countries (e.g., Europe, Asia and North America, Africa and Latin America). Geographic, political, economic, historical and anthropological aspects of health administration problems and issues will be analyzed. Letter grade only (A-F).

450./550. Quality Assurance of Health Care (3) S,SS

Prerequisite: HCA 402./502. Designed for the health care professional or administrator who is involved in or concerned about assurance of quality in health care. Course includes historical beginnings, state-of-the-art, voluntary and governmental effort and proposed means to quality assurance. Letter grade only (A-F).

*451. Economics of Health (3) S

Prerequisites: ECON 101 or 300. Analysis of health as an economic good. Health services as scarce resources. Use of tools of economic theory in study of special problems of health resources, markets, manpower shortages, non-profit enterprises, insurance programs and Medicare. Procedures stress individual studies and

reports. Not open to students with credit in ECON 345 or ECON 445. Same course as ECON 445.

452./552. Medical Group Practice Management (3) F

Prerequisites: HCA 341 or 515, and 450 or 550 completed or concurrent enrollment. Course Description: Overview of medical group management incorporating the basic functions of health care administration and applying them to the medical group practice setting with an emphasis on managed care delivery systems. Fundamental operational responsibilities of medical group administration today. Letter grade only (A-F).

465. Analysis and Evaluation of Health Care Services (3) F,S,SS

Prerequisite: Introductory course in statistics or demonstrated competency. 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.

470I. Latinas/Latinos: Health Status and Health Care Access (3) F

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing. This course is a critical interdisciplinary examination of the health status and health care access of Latinos in the United States. The primary objective of the course is to provide an overview of the policies, epidemiologic, and cultural factors that influence the etiologies of disease within Latino subpopulations. This cross disciplinary approach will also be used to analyze the health care problems faced by Latino subpopulations that constrain efficient management of services and equitable delivery of health care. Letter grade only (A-F). Same course as HCA 470I.

480. Internship in Health Care Administration (3) F,S,SS

Prerequisites: Health Care Administration majors are required to complete all HCA core courses prior to enrolling in HCA 480. These include HCA 341, 353, 402, 410, 416, 465 and HSC 150. Letter grade only (A-F).

490. Special Topics in Health Care Administration (1-3) F,S

Topics of special interest in health care administration selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of six units.

499. Directed Studies (1-3) F,S

Prerequisite: Consent of instructor. Independent study of special topics under supervision of a faculty member. May be repeated to a maximum of four units. In exceptional cases, may be repeated to a maximum of six units when approved by the Director of Health Care Administration Program.

Graduate Level

502. The Health Care System (3) F,S,SS

The course focuses on the contemporary health care system to include its historical beginnings and the underlying social and biological forces which influence its organizational forms, financing and manpower requirements; issues and concerns molding its future such as the assurance of the quality of patient care and the regulation and control of the system. (Lecture)

505. Organization and Systems of Health Care (3) F

The analysis of operational activities and managerial functions essential to the health care delivery system will be examined and discussed. Special emphasis will be placed on the manager's role in developing and maintaining an effective system for providing health care services. The organizational aspects and managerial approaches of delivering health care services within various institutional arrangements will be discussed.

506. Epidemiology for Managers (1) W

Analysis of patterns of health and disease and how these impact on health delivery in the U.S. and abroad. Planning health services based on distribution of acute and chronic disease in populations. (Seminar) Letter grade only (A-F).

508. Ethics in Health Care Delivery (1) W

A review of ethical issues in business, medicine and health care delivery with emphasis on the role of the manager. Theoretical religio-philosophical underpinnings and practical applications will be discussed. (Seminar) Letter grade only (A-F).

510. Human Resources Management in Health Care (3) S

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.

515. Advanced Financial Management in Health Care (3) F

Prerequisites: ACCT 201 or 500. Examination of the principles and practices of managing financial resources in health institutions. Evaluation of trends in the financing of health care and the influence of third-party payers on the financial decisions of health care administrators. Letter grade only (A-F).

524. Advanced Legal Aspects of Health Administration (3) F

Examination of the federal and state regulations of health care facilities and their personnel, patients, and programs. Identification of the legal rights, privileges, and duties of the health care facility to its employees and the patients. There will be special emphasis on malpractice, government control, infection control, liability, contracts, informed consent, medical records, planning, reporting and the health practitioner as an expert witness. Current case laws are reviewed as appropriate.

530. Strategic Planning and Marketing in Health Care (3) S, SS

Prerequisite or corequisite: HCA 502. This course provides an understanding of strategic management and marketing enabling the student to lead the process of strategic planning in a health care organization. By conducting a strategic planning process, health care organizations are better able to cope with dramatic changes in technological, social, political, regulatory and competitive aspects of the health care market. Strategic management enables organizations to identify issues unique to them which hinder or promote organizational success. Through course reading, analyses of secondary quantitative and qualitative data, and presentation of case studies, students gain a thorough understanding of the process of strategic management. Letter grade only (A-F)

535. Quantitative Methods for Health Administration (3) F

Prerequisites: Statistics. Identify and apply appropriate quantitative and operations research techniques to problems in health care settings. Students will receive intensive exposure to decision theory and control systems, and have practical experience solving problems in resource allocation, procedural decisions, scheduling, forecasting, measurement, and cybernetic control.

536. Hospital Management (3) F

Prerequisites: HCA 505. The goal of this course is to develop familiarity with the internal operations of acute care hospitals and skills in solutions of hospital operational problems. Hospitals will be analyzed by broad function and by specific departments. Cases, simulations and visits may be used. (Seminar 3 hours.) Letter grade only (A-F).

537. Managed Care (3)

Prerequisites: HCA 402 or 502. The purpose of this course is to prepare people to enter the managed care field and to orient managers to the organization and administration of Health Maintenance Organizations, Preferred Provider Organizations and related enterprises. Both relationships to the health care marketplace and operational aspects of managed health systems will be covered. Guest lecturers from managed care organizations will participate in the course and students will be expected to develop an operational plan based on a real world situation. (Seminar 3 hours.) Letter grade only (A-F).

538. Long Term Care Management (3) SS

Prerequisites: HCA 402 or 502. Long term care facilities, offering services to the aged and disabled, pose unique problems for managers within this industry. With the "graying" of America, emergence of debilitating illnesses such as AIDS, and focus on cost containment as a major health policy issue, managers in this

sector of health must assume leadership roles in planning and adapting to this dynamic and expanding environment. This survey course will analyze the forces influencing the development of long term care in the U.S. and address specific organizational aspects that affect outcomes of services provided in long term care settings.

539. Management Challenges in Long Term Care (3)

Prerequisite: Undergraduate degree or consent of instructor. Managerial functions and skills essential to managing a wide array of long term care services will be examined and discussed. Special emphasis will be placed on the difficulties faced by administrators and managers in developing and maintaining effective systems for providing efficient Long Term Care services. The organizational aspects of managing a workforce, patient and family relations, marketing and reimbursement along with current managerial challenges will be discussed. Delivering Long Term Care within various institutional arrangements will be also be examined. Students will develop an understanding of today's management methods appropriate to Long Term Care settings. Letter grade only (A-F). (Lecture/Discussion)

550./450. Quality Assurance of Health Care (3) S,SS

Prerequisite: HCA 402./502. Designed for the health care professional or administrator who is involved in or concerned about assurance of quality in health care. Course includes historical beginnings, state-of-the-art, voluntary and governmental effort and proposed means to quality assurance. Letter grade only (A-F).

552./452. Medical Group Practice Management (3) F

Prerequisites: HCA 341 or 515, and 450 or 550 completed or concurrent enrollment. Course Description: Overview of medical group management incorporating the basic functions of health care administration and applying them to the medical group practice setting with an emphasis on managed care delivery systems. Fundamental operational responsibilities of medical group administration today. Letter grade only (A-F).

599. Special Topics by Directed Study (1-3) F,S

Directed study of a special topic to be taken under supervised independent study. May be repeated for a maximum of 9 units, but the topic must not be repeated.

685. Internship (3) F,S

Prerequisites: All 500-level courses and consent of instructor. The purpose of the course is to provide candidates for the master's degree an opportunity to observe and participate in the operations of a health care institution. The student will also study in-depth the organizational structure, philosophy, problems, and personnel relationships of the institution, under the guidance of an approved on-site preceptor and a faculty advisor. Credit/No Credit grading only.

695. Integrative Seminar: Critical Analysis of the Health Care System (3) S

Prerequisites/Corequisites: HCA 685, 698. The health care system will be critically analyzed within its organizational, financial, and personnel components to include the socioeconomic and political forces which bind the system. A systematic, ecological approach will be employed with emphasis on an advanced and critical analysis of the U.S. system. Special consideration will be given to the public policy determinations which have influenced the development of the system and relevant problems and issues. Letter grade only (A-F).

698. Project (3) F,S

Prerequisites: All 500-level courses, and consent of instructor. The student will investigate what is considered a major problem to the health care institution identified in the student's residency, research it in accordance with an accepted methodology, consider the characteristics of the organization, and recommend potential courses of action for the organization to take. Course may be repeated for a maximum of 6 units. Letter grade only (A-F).

HUMAN DEVELOPMENT

College of Liberal Arts

Director

Keith Colman

Program Office

Psychology (PSY) 205

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Jeannette D. Santage

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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 Human Development Program offers a B.A. in Human Development and supervises the Human/Child Development concentrations in the Liberal Studies Program. The B.A. program is structured to provide students with: a broad knowledge of lifespan human development, specific expertise in processes and contexts that affect development, methods to evaluate research and theory within human development, and practice in the real-world application of knowledge gained in the program. Within these guidelines, the B.A. is flexible—students can choose courses that best fit their needs and goals.

Students choose from a wide variety of courses for their Foundation Area requirements. Foundation Area courses cover the components of Human Development—the biological, the psychological and the sociocultural. Students interested in gerontology, for example, may choose to take courses like the Biology of Aging, Introduction to Gerontology and Culture and Aging as their Foundation Area courses, while students interested in child development generally choose different courses for those requirements. Careful se-

lection of Foundation courses can allow students to complete certificate programs (for example, the Gerontology or Child Development Certificates), while completing their major.

In addition to their academic training, Human Development students are taught to apply their knowledge through a course in Interpersonal Skills and a semester Practicum. For the Practicum, students typically volunteer in settings pertaining to their career goals. Because the career goals of our students vary, individual students usually are in different practicum sites, including: elementary schools, human resource management offices, senior centers, physical therapy units and various social service agencies.

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 the graduate program of their choice.

Human Development graduates pursue a variety of careers. At the B.A. level, many take positions in the social services and business. A substantial number of students enroll in Teaching Credential Programs, while others have gone to graduate school in: Applied Anthropology, Counseling, Criminal Justice, Developmental Psychology, Gerontology, Occupational Therapy, Physical Therapy, School Psychology, Social Work and other fields.

Human Development has an active student club, the Human Development Student Association (HDSA). The HDSA is open to all students enrolled in Human Development courses and has regularly scheduled meetings. Activities sponsored by the HDSA are diverse and include community service projects, sponsoring speakers and films and hosting student-faculty parties. HDSA activities are posted outside the Program Office.

More information on the Human Development Program can be obtained at the Program Office (PSY 205) and the program web site. Students who wish to major in Human Development should seek early advising from the Undergraduate Advisor.

Bachelor of Arts in Human Development (code HDEVBA01) (120 units)

Requirements

Lower Division: ANTH 120, PSY 100, SOC 100.

Core Courses (27 units):

1. HDEV 250, 307I, 320, 357I, 360, 364, 402 or 403, 470;
2. Twelve units from the following list, including at least one course from each foundation area.

Biological: ANTH 318, 319, BIOL 309I, W/ST 440;

Psychological: C/D 361, ED P 302, 305, FCS 311, 314, 411, GERN 400I, HDEV 300I, PSY 331, 332, 333, 336, 341, 351, 356, 370;

Sociocultural: ANTH 454, ASAM 340, B/ST 410, CHLS 350, FCS 312I, 412, 413, GERN 400I, HDEV 300I, SOC 320, 345, 464.

Students must earn a grade of at least "C" in all upper division major courses.

Minor in Human Development (code HDEVUM01)

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 Program Advisor, which must include:

1. ANTH 120 or PSY 100 or SOC 100
2. HDEV 250, 3071, 320, 3571, 360
3. One additional Human Development course chosen from HDEV 300I, 340, 364, 402, 403, 470.

All students in this minor must take at least 6 courses in Human Development. 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 250) must substitute another HDEV course for that one.

Courses (HDEV)

Lower Division

180. Lifespan Human Development (3)

Prerequisite/Corequisite: ENGL 100 or equivalent. 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.

250. Elementary Statistics in Social and Behavioral Sciences (4)

Prerequisites: Knowledge of mathematical procedure usually covered in elementary high school algebra, eligibility for GE math. Not open to students with credit in ANTH 202, MATH 180, PSY 110, SOC 250 or C/LA 250. 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. (Lec 3 hrs, lab 2 hrs.) Same course as C/LA 250.

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.

300I. Death and Dying (3)

Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or PSY 100 or SOC 100. This course will explore the social, cultural and individual aspects of the death experience. Death will be examined from historical, biological, legal, religious and ethical perspectives. In addition, death work, aspects and meaning of the dying experience, survivorship, ritual and grief will be studied. All topics will be examined in light of life-span, cultural and gender diversity. Not open to students with credit in HDEV 400I.

3071. Human Development: Childhood Through Adolescence (3)

Prerequisites: Completion of G.E. Foundation, upper-division standing, ANTH 120 or PSY 100 or SOC 100. 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 to students with credit in NRSRG 307.

320. Research Methods in Human Development (4)

Prerequisites: ANTH 120, or PSY 100 or SOC 100, HDEV 250, completion of GE life science requirement. Research methods in human development. Includes methods and models from anthropology, biology, psychology and sociology as applied to research. (Lec 3 hrs, lab 2 hrs.) Letter grade only (A-F).

340. Families and Work: Life Course Processes (3)

Prerequisites: Completion of G.E. Foundation, upper division status, PSY 100 or ANTH 100 or SOC 100. This course provides a framework for understanding families, work, and their changing relationship. It examines the historical transformations over time in Western societies, but especially in the U.S., in the nature of work and how these changes have helped to reshape family forms, relationships and processes.

3571. Human Development: Adulthood Through Aging (3)

Prerequisites: Completion of G.E. Foundation, upper division standing, ANTH 120 or PSY 100 or SOC 100. Biological, psychological and sociocultural aspects in the development of the individual from late adolescence or youth until death will be considered. Relevant topics and theoretical issues will be treated in an interdisciplinary manner. Not open to students with credit in NRSRG 357 and PSY 365.

360. Cultural Influences on Human Development (3)

Prerequisites: HDEV 250, 3071, 3571. Prerequisite or Corequisite: HDEV 320. This course examines the human life cycle from a global and cross-cultural comparative perspective. The course materials, primarily ethnographic and anthropological in nature, are concerned with how the phases of human development (and the transitions between them) are conceptualized and dealt with in a variety of sociocultural settings worldwide. Primary goals are to develop skills in discerning and accounting for both the differences and the similarities in how the world's peoples experience and interpret the human life cycle, and to achieve an understanding of how culture shapes those experiences and interpretations at both individual and group levels. Not open to students with credit in HDEV 401.

364. Interpersonal Skills in Human Development (3)

Prerequisites: HDEV 3071 and 3571. Designed to develop interpersonal skills identified as necessary to have effective human relations. It includes a presentation of theory and research applicable to processes in interpersonal functioning and human relations. Didactic and experiential learning approaches. Not open to students with credit in HDEV 434B or ED P 434B.

402. Development of Thought: Structure, Process and Cultural Influences Across the Life Span (3)

Prerequisites: HDEV 320 plus 360 as prerequisite or corequisite. Readings and discussion focus on the examination of theories and current research on the development of thought focusing on biological underpinnings, psychological process and sociocultural constraints. Specific topics include memory, intelligence, cognition, problem solving, language and thought, literacy and educational implications. All issues will be examined from an interdisciplinary perspective across the life span.

403. The Acquisition of Culture: Socialization in Cross-cultural Perspective (3)

Prerequisites: HDEV 360, or an equivalent upper-level cultural anthropology course (e.g. ANTH 414, 415, 419, 420, 421) and permission of instructor. This course examines socialization as both a universal and culturally specific phenomenon. Topics explored include cross-cultural variations in ways of teaching and learning; socialization of children and of adult novices; socialization as a key aspect of social and cultural reproduction; and socialization as a source of innovation and change.

470. Seminar/Practicum (4)

Prerequisites: HDEV 250, 3071, 320, 3571, 364; and permission of instructor. The course 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. Special Topics in Human Development (3)

Prerequisites: HDEV 3071, consent of instructor. Topics of current interest in human development selected for intensive study. May be repeated with different topics for a maximum of six units. Topics for a given semester will be announced in the *Schedule of Classes*.

499. Independent Study (1-3)

Prerequisite: Consent of instructor and Program Director. Student will conduct independent laboratory, field, or library research and write a report of the research. May be repeated for a maximum of six units.

COLLEGE OF HEALTH AND HUMAN SERVICES

Dean

Ronald E. Vogel

Associate Dean

Dixie A. Grimmett

Associate Dean for Research

Paul Bott

Director of Development

Renee Oust

Administrative Services Manager

Linda McConnell

Administrative Operations Manager

Elizabeth Martin

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Denysia O'Connell

Information Technology Coordinator

Mike Nosow

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Website

www.csulb.edu/colleges/chhs/

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The College of Health and Human Services offers a wide range of programs at the undergraduate and graduate levels. Included within the College are eleven diverse departments, four programs, and eleven centers:

Departments

Communicative Disorders

Criminal Justice

Family and Consumer Sciences

Health Science

Kinesiology and Physical Education

Nursing

Occupational Studies

Physical Therapy

Graduate Center for Public Policy and Administration

Recreation and Leisure Studies

Social Work

Programs

Gerontology

Health Care Administration

Military Science (Army ROTC)

Radiation Therapy

Centers

Bureau of Governmental Research and Services

Center for Career Studies

Center for Criminal Justice Research and Training

Center for Disability Studies Scholarship

Center for Health Care Innovation

Center for Successful Aging

Child Welfare Training Center

Institute for CSULB/VA Joint Studies

Movement Science Laboratories

Physical Therapy Assessment Center

Senior University

Goals

The College of Health and Human Services, as a professional College, is united by the following purposes:

- The academic and professional preparation of students for careers in their chosen field of specialization;
 - The development and maintenance of high standards of academic achievement for students;
 - The encouragement of critical thinking through rigorous academic and professional preparation; and
 - The conduct of ongoing research, training, and community involvement by faculty and students.
- To achieve these goals, the College seeks to create an environment at both the undergraduate and graduate levels that encourages student growth by providing:
- A broad educational experience in the liberal arts;
 - Specialized instruction leading to professional development and competence; and
 - Integration of academic and professional course work to develop the whole person.

Degrees Offered

Bachelor of Arts:

- Communicative Disorders
- Family and Consumer Sciences
- Kinesiology
- Recreation
- Social Work

Bachelor of Science:

- Audiology
- Criminal Justice
- Dietetics and Food Administration
- Health Care Administration
- Health Science
- Kinesiology
- Nursing
- Occupational Studies

Master of Arts:

- Communicative Disorders
- Family and Consumer Sciences
- Kinesiology
- Occupational Studies

Master of Science:

- Criminal Justice
- Gerontology
- Health Care Administration
- Health Science
- Kinesiology
- Nursing
- Nutritional Science
- Recreation Administration

Master of Physical Therapy

Master of Public Administration

Master of Public Health: Community Health Education

Master of Social Work

Certificates Offered

- Administration of Outdoor Recreation Resources
- Administration of Travel and Tourism
- Administration of Volunteer Services
- Child Development
- Community Physical Fitness
- Corrective Therapy
- Food-Service Systems Administration
- Gerontology
- Health Care Administration
- Leisure Counseling (Graduate Certificate)
- Nurse Practitioner
- Pre-Athletic Training
- Public Management Analyst (Graduate Certificate)
- Public Sector Employer-Employee Relations and Personnel Management (Graduate Certificate)
- Public Sector Financial Management (Graduate Certificate)
- School Nursing Credential
- Therapeutic Recreation
- Transportation Policy and Planning (Graduate Certificate)
- Urban Executive Management (Graduate Certificate)
- Wilderness Studies

College Facilities

The College of Health and Human Services is characterized by perhaps the greatest diversity of programs in the University. The eleven departments, four programs, and eleven research centers are housed within twelve buildings on campus. During the period 1992-94, the primary facilities received \$21,000,000 worth of renovation, including the addition of new equipment in laboratories. As a result, students now have access to state-of-the-art classrooms, laboratories, and clinics with equipment matching that of business/industry. As a student, for example, you could visit our Communicative Disorders Speech and Hearing Clinic, Nursing Simulation Lab, or Physical Therapy Labs and Clinic. You could participate in a discussion on the importance of recreation in your life and the lives of others in a Recreation and Leisure Studies course; or a discussion of diet and nutritional needs in Family and Consumer Sciences; or a seminar on AIDS awareness in the Health Science Department; or a seminar on improvement of the quality of life for all people in the Social Work Department. You may choose to swim in our Olympic size pool or be tested in the underwater weight tank, while enrolled in a Physical Education class. The Department of Criminal Justice may walk you through the forensic investigation of a crime. Public Policy and Administration courses will offer you the opportunity to apply new knowledge, skills, and leadership techniques to the solution of public problems; while Occupational Studies could provide you with the competencies requisite for successful employment in secondary schools, community colleges, and adult programs.

As the second largest of the University's seven colleges, Health and Human Services is comprised of over two-thirds laboratory facilities which accommodate its many lab-intensive programs. These programs combine theory with exciting practical application in the campus laboratories, as well as many off-campus facilities through field work and internships.

Professional Accreditation

Programs in the College have been accredited by the following state and national accrediting agencies:

American Association of Colleges of Nursing, American Dietetic Association, American Public Works Association (APWA), American Speech Language and Hearing Association, Association of University Programs in Health Administration, Council on Education for Public Health, American Home Economics Association, American Physical Therapy Association, California State Board of Registered Nursing, National Association of Schools of Public Affairs and Administration (NASPAA), National League for Nursing, California Council on Parks and Recreation, National Recreation and Park Association Council on Accreditation, Western Institute of Nursing, California Teaching Commission, National Commission on Accreditation for Teacher Education, National Commission on Accrediting Teachers Education and California Teaching Commission (KPE, FCS, HS), Commission on Accreditation of Allied Health Education Programs (Kinesiotherapy).

The College maintains an active involvement in the following organizations:

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, Foodservice and Hotel Management Association, Health Care Administration Forum, Health Science Graduate Student Association, Health Science Student Association, Kinesiology and Physical Education Majors Club, National Student Speech and Hearing Association (Communicative Disorders), Pershing Rifles (AROTC), Peer Health Educators, Physical Therapy Student Association, Public Policy and Administration Student Association (PASA, Public Policy and Administration), Recreation and Leisure Studies Alumni Association (RALSAA), Recreation Society (Recreation and Leisure Studies), Social Dance Club, Society of Consumer Affairs Professionals (FCS), Sports Medicine Club (Kinesiology and Physical Education), Student Affiliates of the American Kinesiotherapy Association (Kinesiology and Physical Education), Student Association for Family and Consumer Sciences, Student Chapter of American Association of Family and Consumer Sciences, Student Dietetic Association (Family and Consumer Sciences), Student Food Science Society (Family and Consumer Sciences), Students Active in Community Health (FCS), Students in Fashion (Family and Consumer Sciences).

Professional and Honorary Organizations

Alpha Phi Sigma (Criminal Justice), American College of Healthcare Executives, California Association for Health, Epsilon Pi Tau (Occupational Studies), Eta Sigma Delta Hospitality Foodservice, Eta Sigma Gamma (Health Science), Kappa Omicron Nu (Family and Consumer Sciences), National League for Nursing, Omicron Tau Theta (Occupational Studies), Pi Alpha Alpha (Public Administration), Phi Epsilon Kappa (Kinesiology and Physical Education), Recreation and Dance (CAHPERD), Sigma Theta Tau (Iota Eta Chapter), Nursing Honorary Society (Nursing), Society of Consumer Affairs Professionals (Family and Consumer Sciences), Student Chapter of the American Association of Textile Chemists and Colorists (Family and Consumer Sciences).

College and Departmental Organizations

Army ROTC Association, California Nursing Students' Association, Child and Family Associated Students (CAFAS, Family and Consumer Sciences), College of Health and Human Services Student Council, Criminal Justice Student Association, Food Science Society (Family and Consumer Sciences), Health Care Administration Forum, Health Science Student Association, Health Science Graduate Student Association, Kappa Omicron Nu (Family and Consumer Sciences), Kinesiology and Physical Education Majors Club, National Student Speech and Hearing Association (Communicative Disorders), Physical Therapy Student Association, Public Administration Student Association (PASA, Public Policy and Administration), Recreation and Leisure Studies Alumni Association (RALSAA), Recreation Society (Recreation and Leisure Studies), Society of Consumer Affairs Professionals (Family and Consumer Sciences), Sports Medicine Club (Kinesiology and Physical Education), Student Association for Family and Consumer Sciences, Student Chapter of the American Association of Textile Chemists and Colorists (Family and Consumer Sciences), Student Dietetic Association (Family and Consumer Sciences), Students Active in Community Nutrition (FCS), Students in Fashion (Family and Consumer Sciences).

Professional and Honorary Organizations

Eta Sigma Delta (Hospitality Foodservice and Hotel Management Honors Society), Student Chapter of the American Association of Family and Consumer of Sciences, Student Dietetic association (FS).

Courses (HHS)

Lower Division

100. Skills for Living (3)

This course is designed to provide students with the skills necessary to survive as new members of CSULB communities as well as enhancing quality of life. Specific topics include, but are not limited to, personal security, the criminal and civil justice systems, aging, consumer affairs, financial management, personal and family relations, nutrition, health maintenance and care, disease prevention, fitness, and the roles of work and leisure in one's life. (Lecture-discussion, 3 hours.) Team taught by College of Health and Human Services Faculty.

Upper Division

374. Psychosocial Aspects of Disability (3)

Prerequisites: PSY 100 and consent of instructor. Survey of the psychosocial, emotional, and cultural reactions to disease and disability. Letter grade only (A-F). (Lecture/discussion 3 hours.)

401. Applied Anatomy I (3)

Prerequisites: BIOL 208, or equivalent, and consent of instructor. Advanced study of the structure and function of the neuromusculoskeletal systems with emphasis on the surface contour, myology and joint structure, and neurovascular supply. Includes dissection laboratory and provided materials. Letter grade only (A-F). (Lecture/discussion 2 hours, laboratory 3 hours.)

402. Applied Anatomy II (3)

Prerequisites: BIOL 208, or equivalent, HHS 401, consent of instructor. A continuation of HHS 401, with an emphasis on the normal anatomy of the lower extremities, pelvis, and abdominal region. Letter grade only (A-F). (Lecture/discussion 2 hour, laboratory 3 hours.)

460. Neuroanatomy (4)

Prerequisites: HHS 401, BIOL 341, 441 (concurrent) and consent of instructor. 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 human function and movement. Neuroanatomical and vascular lesions will be discussed and correlated to common clinical conditions. Laboratory experiences will integrate brain and spinal cord specimens and models, and imaging techniques to lecture material. Letter grade only (A-F). (Lecture/discussion 3 hours, laboratory 3 hours.)

471. Pathology (3)

Prerequisites: BIOL 208 and consent of instructor. Advanced study of abnormal function as a result of disease. Including general pathology and selected pathologies encompassing cardiovascular, pulmonary, musculoskeletal, peripheral and central nervous system, and integumentary. (Lecture/discussion 3 hours.)

492. Field Studies and Career Exploration (1-3)

Prerequisites: Consent of the instructor and a minimum GPA of 2.0. This course provides students with career-related experience by allowing them to participate in fieldwork assignments relating to their majors and intended professions. Students who qualify will participate in volunteer or paid assignments in private industries, non-profit organizations, or public agencies. In addition to this practical experience, students will attend a series of seminars designed to complement their field assignments by focusing on issues common to the work setting.

497. Independent Studies (1-3)

Prerequisites: Consent of instructor, and for human dissection, one general introductory anatomy course HHS 401, and HHS 402. Independent projects in any area of physical therapy. Human dissection is available as a special study. May be repeated to a maximum of six units. Letter grade only (A-F).

HISTORY

College of Liberal Arts

Department Chair

Sharon L. Sievers

Department Office

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Telephone

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Faculty

Professors

Dorothy Abrahamse

Xiaolan Bao

Stephen E. Berk

David A. Bernstein (Emeritus, 1999)

Paul V. Black

Albie D. Burke

Augustus Cerillo, Jr. (Emeritus, 2000)

Patricia A. Cleary

Keith E. Collins

Kenneth R. Curtis

Edward A. Gosselin

Albert F. Gunns

David C. Hood

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Associate Professors

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Troy R. Johnson

Nancy L. Quam-Wickham

Assistant Professors

Houri Berberian

Jane Dabel

Catherine Komisaruk

Brett Mizelle

Sarah Schrank

Omar Valerio-Jimenez

Undergraduate Advisors

Linda Alkana

Houri Berberian (and Portfolio Advisor)

Graduate Advisor

Nancy Quam-Wickham

Office Manager

Karen Huber

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Advising in the Department of History is available to all students interested in a major, minor, a teaching credential, or a special major combining History with another discipline. Students are strongly encouraged to see History Department advisors at an early stage in the develop-

ment of their programs. Undergraduate majors should see the Department Secretary to fill out a work sheet before meeting with the Undergraduate Advisor. Students interested in the M.A. program should contact the Department Secretary for application information. Graduate students should see the Graduate Advisor (Nancy Quam-Wickham). Applicants for the Social Science Credential Single Subject Program must see Credential Advisors (Jane Dabel or Patsy Lambert). All advisors maintain extended hours during the semester and are available at other times by appointment. The Department of History also hosts open advising days in the week prior to each new semester; call the Department for information.

History

History is a discipline at the core of the liberal arts tradition. It seeks to preserve, extend, and reevaluate our study of the past, and to connect it with the present. Students who specialize in History are typically those who plan to teach, practice law, or enter government service; but History students also go into business, librarianship, foundation work, management of local history projects, and fundraising. Some history alumni have become successful writers.

Students contemplating graduate work in History on this campus or elsewhere should get advice early in their undergraduate careers from faculty in their fields of interest, and should also give serious consideration to developing proficiency in a foreign language during their undergraduate tenure.

The History Department awards scholarships and prizes to outstanding undergraduate and graduate students, among which are:

- The Douglas McNeally Award
- The Stuart Bernath Award
- The Ebell-Heimberger Scholarship
- The Jack Chinski Award
- The Elizabeth Neilsen Award
- The Hardeman Graduate Student Award

For further information about these awards, given annually, students should 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 also 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 173. Students who have taken U.S. history at another institution should check with the History Department before enrolling.

Bachelor of Arts in History (code HISTBA01) (120 units)

Requirements

Majors must take 47 units of history: 9 lower-division and 38 upper-division.

1. Core: 12 units. All majors must take HIST 301, 302, 499, and one history course that fulfills the gender, race, and ethnicity requirement (from a list of approved courses available from the Undergraduate Advisor). HIST 301 must be taken in the first semester of course work in the major.

2. Fields of emphasis: 18 units. All majors have the option of specializing in two or three fields. Option one: two fields of nine units each. Option two: three fields of six units each. The fields are:

- A. Africa and the Middle East
- B. Ancient and Medieval Europe
- C. Asia
- D. Latin America
- E. Modern Europe (Including Britain)
- F. United States

3. Breadth: 6 units. Majors must take six units in a field (or fields) of history outside of their fields of emphasis.

4. All majors must develop a portfolio (beginning with HIST 301) reflecting their work in the History major. The portfolio will be evaluated as one of the requirements in the senior seminar, HIST 499, prerequisites for HIST 499, completion of HIST 301 and 18 units of 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.

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 3 units in HIST 501;

3. Complete 3 units in HIST 498H: Honors Research;
4. Complete 3 units of HIST 499H: Honors Thesis;
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. Complete UHP 499 Synthesis, as partial fulfillment of the University's requirement of 6 upper-division units;
7. 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 the one-unit workshop. Students in these workshops learn how to design an oral history project, and to conduct interviews. Workshops are especially helpful for students interested in local history, the history of the family, and communities whose written records have not been included in traditional historical materials.

Minor in History (code HISTUM01)

A minimum of 21 units which must include:

Lower Division: A minimum of six units, which must include a six-unit sequence from the following: HIST 211 and 212, 131 and 132.

Upper Division: 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 (code HISTUM02)

The Minor in Jewish Studies consists of a minimum of 19 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 courses: HEBW 101A, HIST 369, R/ST 314;
2. Three units from the following elective courses: C/LT 342, HIST 431, R/ST 311;
3. Six units from the following elective courses: GEOG 309I, HIST 304, 432, 389; POSC 367; R/ST 315I

Minor in Latin American Studies (code HISTUM03)

The Minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of Latin America. The minor's flexible program of study is ideal for students interested either in intellectual enrichment or professional development in their major. Courses used to meet this minor requirement may be counted

also, where applicable, toward the General Education requirements, and the major or minor requirements of the co-operating departments.

Requirements

1. The following are the requirements for the Latin American Studies minor:
 - A. 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.
 - B. 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) 6 units. Choose from two disciplines: ANTH 323, 324; GEOG 320I; HIST 362, 364; POSC 358, 359; SPAN 445.
 - B. Electives: 15 additional units from the following disciplines. Students cannot duplicate courses taken in the Core: ANTH 323, 324, 345, 490*, 495*, CHLS 352, 380, 395, 400, 420, 490*, 499*; C/LT 440, 499*, ECON 490*, 499*; FEA 392C; GEOG 320I; HIST 362, 364, 366, 461, 462, 463, 466A, 466B, 466C, 490*, 495*, 498*; POSC 358, 359, 497*, 499*; SOC 341, 490*, 499*; SPAN 341, 441, 445, 490* 492, 495* 550

* The Latin American Studies advisor must approve Special Topics and Directed Studies courses in the area of Latin American Studies.

Minor in Middle Eastern Studies (code HISTUM05)

The Middle Eastern Studies minor encourages undergraduate students to acquire a broad and interconnected understanding of the dynamics of Middle Eastern societies, cultures, and histories by taking courses in a variety of disciplines including History, Arabic language, Political Science, Geography, Art History, International Business, and Religious Studies. Students will expand their understanding of the major issues, themes, and concepts associated with a complex and diverse region as the Middle East.

Requirements

A minimum of 18 units.

Core Required Courses

Minimum twelve (12) units: At least three (3) units must be in History and four (4) units must be in Arabic.

HIST 431/531, 432/532; R/ST 331I; POSC 367; ARAB 101A, 101B.

Elective Requirements

Students must take a minimum of six (6) additional units, selected with an advisor, from the following disciplines without repeating courses from the core. ART 465/565; GEOG 309I; HIST 394, 431/531, 432/532, 490; POSC 367; R/ST 331I; ARAB 101A, 101B; C/LT 124, 402.

Three (3) of these units may be taken from the following courses, which have a global and comparative perspective without repeating courses from core:

CBA 300; W/ST 401I; FCS 410; R/ST 102; HIST 495.

Master of Arts in History (code HISTMA01)

Prerequisites

1. A bachelor's degree with an overall 3.0 GPA in history, or with an overall 3.0 GPA, 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 will be determined by the graduate advisor after consultation with the student and after study of transcript records.

Advancement to Candidacy is a statement of how the student plans to complete all courses and requirements for the degree, including setting a date and a committee for the thesis or comprehensive examination. It is best done as early as possible and it must take place before the end of the semester preceding the examination. Students writing a thesis are advanced to candidacy at the time that they begin their thesis work.

Requirements

1. A minimum of 30 units of upper division and graduate courses including at least 18 units from 500 and 600-level courses. Six units may come from other departments if they suit the student's program and are approved by the graduate advisor. All students must take HIST 501 and HIST 590. Twelve of the remaining units must come from among the following area offerings: 510A, 510B, 510C, 510D, 510E, 611, 631, 673, 682.
2. The student may select one or two fields of specialization distributed as follows:

Alternative I. Single-field option. Fifteen units, including at least one class in the 510 series, in one of the following fields: Africa and the Middle East, Ancient/Medieval Europe; Asia; Britain; Latin America; Modern Europe (including Russia); United States. Those who take the single-field option must also take at least one 500-level course in a second field.

Alternative II. Two-Field Option. A minimum of 9 units in each of two of the above geographical areas, including at least three units of 510 in each.

The courses for 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.

3. A reading knowledge of German, French, or other foreign language may be required, depending upon the candidate's program of study as recommended by her/his graduate committee.
4. A comprehensive written examination on two periods or a thesis.

Courses (HIST)

Lower Division

101. Facts, Evidence and Explanation (3)

Corequisite: ENGL 100. The course will address the following issues within historical or global contexts: distinguishing fact from judgement; understanding argument and inductive and deductive reasoning skills; investigating the relationship of language to logic and the problem of selecting evidence, including understanding points of view, bias and theoretical perspective; and differentiating belief from knowledge, by asking the question, "How do we know what we know?" We will investigate facts, evidence and explanation by analyzing the content, dissemination and absorption of information from a variety of printed and visual sources. (Not open to students with credit in HIST 201.)

131. Early Western Civilization (3)

Corequisite: ENGL 100. The 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. (CAN HIST 2)

132. Modern Western Civilization (3)

Corequisite: ENGL 100. European society from the 16th century to the present. Stresses events and phenomena which reshaped the political, economic and social structures of the West and their impact throughout the world. Emphasis on the intellectual, social and psychological transformation of modern life. (CAN HIST 4)

161. Introduction to Latin American Studies (3)

This course offers an interdisciplinary overview of history, society, and culture in Latin America-Mexico, Central America, the Caribbean, and South America. It will examine the political, economic, social, and cultural conditions that have produced conflict, change, and continuity in Latin America over the last five hundred years. Letter grade only (A-F). Same course as SOC 161.

172. Early United States History (3)

Prerequisite/Co-requisite: Completion of one G.E. Foundation course and English 100 or equivalent. Survey of the political, social, Economic and cultural development of the United States from discovery through reconstruction. Attention to the colonial era, establishment of the new nation, sectional problems, national growth, disunion and reconstruction. Material may be covered chronologically or topically. Fulfills the general education requirement for U.S. history. Not open to students with credit in HIST 162A. (CAN HIST 8)

173. Recent United States History (3)

Prerequisite/Co-requisite: Completion of one G.E. Foundation course and English 100 or equivalent. Survey of the political social, economic, intellectual, and cultural development of the United States from reconstruction to the present. Focuses on different social groups and examines the experiences of both the powerful and those who want power in American society. The course may be chronological or topical, and covers such themes as: immigration and movements of people; work and the economy; the emergence of women's and minority issues; politics, protest and war; and society and culture. (CAN HIST 10)

211. World History: Origins to 1500 (3)

Prerequisite: Completion of GE Foundation requirements. A survey of the development of world civilization and major cultures from the Neolithic Revolution until the eve of the European conquest of the Americas. The civilizations of the Ancient, Classical and Postclassical periods will be studied, emphasizing interaction between civilizations and major cultures. Topics will include: the origins and role of universal religions; the examination of political, social and gender structures in relation to economic and demographic development; and the diffusion of culture and technology via migration, commerce and the expansion of empire. (Not open to students with credit in HIST 111.)

212. World Since 1500 (3)

Prerequisite: Completion of GE Foundation requirements. A survey of the origin and development of the modern world, tracing both regional histories and global interactions. Major themes include: economic aspects of globalization; intellectual and cultural adjustments to modernity; modern imperialism, resistance to empire and the birth of nations; and the historical origins of the contemporary world. (Not open to students with credit in HIST 112.) (CAN 16)

250. Early World Historical Geography (4)

Prerequisites: Open only to Integrated Teacher Education Program (ITEP) students. This course uses the perspectives of history and geography to introduce students to the civilizations of Eurasia, Africa, and the Americas as they developed prior to European contact. To understand their origins and subsequent growth and development, special attention will be given to geographic and historical factors such as location and place, human/environment interactions, migrations, cultural and technological diffusion as well as the intensity of cross-cultural contact and exchange between cultures and civilizations over time. Same as GEOG 250.

290. Special Topics in History (1-3)

Prerequisites: Completion of GE Foundation requirements. Topics of current interest in history. May be repeated with different topics to a maximum of six units. Applicability to major requirements will be spec-

ified in description of individual topics, as announced in the *Schedule of Classes*.

A. World War II

Upper Division Areas

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.

Course titles listed with an asterisk (*) are available for graduate as well as undergraduate credit.

GENERAL

Course titles listed with an asterisk (*) are available for graduate as well as undergraduate credit.

*301. Methodology of History (4)

Prerequisites: Required of all History majors in their first semester of work in the major. Introduction to historiography and methodological issues; skills and competencies exercises; research methods; research presentations and peer review. Creation of student portfolio that will be used in remaining upper-division courses in the major, and will be assessed in HIST 499 (Senior Seminar). Letter grade only (A-F). Course may be repeated to a maximum of 8 units.

*302. Theory and History (3)

Examination of the ways in which theory shapes historical writing and research. Will focus upon case studies, significant historical works, major schools of historical interpretation and recent scholarly trends. Letter grade only (A-F).

309I. Men and Masculinity (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations 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).

349. The History of Food (3)

From the domestication of plants and animals in the Neolithic Revolution to the world-wide cultivation of new crops after 1500, securing reliable sources of sustenance has been central to political, economic, and military agendas. The meanings of food - its multiple roles in both religious rituals and secular festivals, its connection to issues of identity, its contested nature - all serve to underline the usefulness of studying food and human beings' complicated relationships with it throughout history.

490. Special Topics in History (1-3)

Prerequisite: Consent of instructor. Topics of current interest in history selected for intensive development. May be repeated with different topics to a maximum of six units, but no more than three units may be used to satisfy the requirements for the major. Topics will be announced in the *Schedule of Classes*.

F. Women and War

Same topic as SPAN 493A and W/ST 490K.

*494. Practicum in History (1-3)

Prerequisites: Consent of instructor and department chair. Field work in History, supplemented by reading and tutorials under the direction of a faculty member. Internships, small group discussion/teaching, and other assignments directed by a supervising faculty member. Course may be repeated for a maximum of 6 units. No more than three units may be applied to the major in History.

*495. Colloquium (3)

Prerequisites: HIST 301 and nine additional units of upper division History. Seminar level course exploring a specific historical field or issue chosen by the instructor; students will be expected to analyze and interpret primary and secondary sources in a paper that will be 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 History 499 as a core requirement, not 495.

A. Colloquium

O. U.S. in Vietnam

***498. Directed Studies (1-3)**

Prerequisite: consent of instructor. Independent study under the supervision of a faculty member. May be repeated up to six units.

498H. Honors Research (3)

Research for and writing of a senior thesis under the direction of a departmental advisor.

499. Senior Seminar (4)

Prerequisites: HIST 301 and 18 completed units of upper-division course work in History. Designed for graduating seniors, this course requires that students demonstrate baccalaureate-level master of historical processes and historical literature through 1) submission of a portfolio representing continuing work in the major; 2) research and writing of a major paper, and 3) oral presentations. Not open to History majors with fewer than 18 completed units of upper-division work in the major.

499H. Honors Thesis (3)

Prerequisite: HIST 498H. Research, writing, and presentation of a senior honors thesis under the direction of departmental faculty advisor.

INTERDISCIPLINARY COURSES

303I. Rebels and Renegades (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. The 1930s and 1960s were decades noted for their political, social and cultural creativity and turmoil. This course investigates youth involvement in social change, and focuses on the following topics in US history: labor activity, civil rights, student action, issues of war and peace, the evolution of the women's movement and the emergence of minority voices. The course looks at culture (particularly music, literature, and movies) in defining and reflecting these issues, and addresses the question of why some decades are filled with social protest while other periods appear to be more politically passive. The class addresses the importance of these questions for the 1990s. Not available for credit in the minor.

308I. Law and Civilization (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations 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/bureaucratic settings. Not available for credit in the minor.

309I. Men and Masculinity (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations 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).

310I. The Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major events and ideas in society and culture of ancient Greece with an emphasis on literature, the arts, and the historical forces at work. Topics include foundations of Greek culture, Minoan civilization, Homer and the Trojan War, mythology and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponnesian War, Hellenistic culture and contributions of the Greeks to the modern world. Same course as C/LT 310I.

312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An inter-

disciplinary examination of major events and ideas in the society and culture of ancient Rome with an emphasis on literature, the arts, and the historical forces at work. 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 C/LT 312I.

400I. History of Western Scientific Thought (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary introduction to the history of science for both scientists and non-scientists. Evolution of the scientists' views of the means and ends of their own activities; the ways in which science is affected by and affects contemporary cultures.

404I. Social History of Musical Life (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Social history of musical life, music publics, institutions, professions, and taste in Europe and the U.S. Not available for credit in the major.

407I. Japan and the United States in the 20th Century (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Examination of relationships between Japan and the United States, emphasizing cultural, economic and political conflict and cooperation.

414I. Medieval World (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major themes in medieval society and culture with emphasis on literature, the arts, and the historical forces at work. Topics will include the Roman heritage of the Middle Ages, pre/non-Christian culture, the so-called "dark ages," Romanesque and Gothic worlds, crusades and pilgrimages, commerce and cathedrals, and late medieval problems. Same course as C/LT 414I.

474I. The Urbanization of Modern America (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Survey of urban America from the colonial period to the present. Emphasis on the process of urbanization, urban problems and politics.

AFRICA AND THE MIDDLE EAST

***391. The Making of Modern Africa, 1800-1939 (3)**

This course surveys the history of sub-Saharan Africa from the early 19th through the mid-20th centuries. We will study the rapid changes which destabilized many 19th century societies, the European conquest which followed, and the entrenchment of a colonial situation which robbed generations of Africans of their ability to control their own political and economic destinies. Our emphasis will be on how Africans themselves perceived these processes, how they adjusted to them, and the continuing relevance of these experiences today.

***392. Contemporary Africa, 1940-Present (3)**

The challenges facing Africa today can seem bewildering in their variety and complexity. In this course we will examine the political, economic, social, and ecological conditions of the African continent by studying their historical genesis in the second half of the twentieth century. The main focus will be the difficulties that have been encountered in overcoming the legacies of colonialism in Africa.

***394. Middle Eastern Women (3)**

Prerequisites: Upper division status. In this course we will explore a wide range of roles played by Middle Eastern women throughout history and seek to understand the multi-faceted thoughts and activities of women. By studying many different kinds of sources, both secondary and primary, including memoirs, biographies, traveler accounts, poetry, and film, we will look at women from different geographical and class backgrounds and discuss the most important issues related to women and gender in Middle Eastern history. This course will proceed in chronological order but will also have a strong thematic approach. While the focus of this course is on Muslim women, who are the majority in the region, the experience of minority women will also be addressed. Same as W/ST 394.

431./531. The Middle East (Southwest Asia), 600-1700 (3)

This course surveys the history of the Middle East (Southwest Asia) from 600-1700: from the rise of Islam to the eighteenth century, with an emphasis on the background and circumstances of the rise of Islam, the creation and development of the Islamic Empire, the rise of dynastic successor states and "gunpowder" empires, European encroachment, and integration of the Middle East into the emerging world system. The course will focus on cultural, intellectual, social, economic, and political development and will situate the history of the region within its global context.

432./532. The Middle East (Southwest Asia), 1700-Present (3)

This course surveys the history of the Middle East (Southwest Asia) from 1700 to the present. The course will focus on modernization and reform, problems and impact of modernity and imperialism in social, political, and economic spheres, state building, nationalism, and Islamic revivalism and will situate the history of the region within its global context.

***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.

ANCIENT AND MEDIEVAL

310I. The Greek World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major events and ideas in society and culture of ancient Greece with an emphasis on literature, the arts, and the historical forces at work. Topics include foundations of Greek culture, Minoan civilization, Homer and the Trojan War, mythology and religion, lyric poetry, the Persian Wars, the "Golden Age" of Athens, the Peloponnesian War, Hellenistic culture and contributions of the Greeks to the modern world. Same course as C/LT 310I.

312I. Roman World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major events and ideas in the society and culture of ancient Rome with an emphasis on literature, the arts, and the historical forces at work. 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 C/LT 312I.

***313. Ancient Greece (3)**

Prerequisite: Completion of GE Foundation requirements. History of the Greeks and the Greek world from the earliest times to the Roman conquest.

***314. Roman History (3)**

Prerequisite: Completion of 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)**

Political and social development of the Byzantine Empire from the 4th century A.D. to the fall of Constantinople in 1453; the cultural heritage of the Roman Empire in the eastern Mediterranean; religious controversies and the development of eastern Christianity; relations with Islam and medieval Europe.

***351. Medieval England (3)**

Analysis of English political institutions, society, religion and economy in the Anglo-Saxon, Norman, Plantagenet and late medieval eras.

414I. Medieval World (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary examination of major themes in medieval society and culture with emphasis on literature, the arts, and the historical forces at work. Topics will include the Roman heritage of the middle ages, barbarian culture, Romanesque and Gothic worlds, crusades and pilgrimages, commerce and cathedrals, and late medieval problems. Not available for credit in the major. Same course as C/LT 414I.

ASIAN

382A. Imperial China (3)

Prerequisite: Completion of the GE foundation. Introduction to the classical civilization stressing the evolution of imperial institutions, the Chinese world order and China's traditional cultural heritage. Same course as CHIN 382A

382B. Modern China (3)

Prerequisite: Completion of the GE foundation. Chinese society from the 17th century to 1949. Impact of imperialism, reform and revolutionary movements, the background of Chinese communism. Not open to students with credit in HIST 482B. Same Course as CHIN 382B.

383A. Japan to 1850 (3)

Prerequisite: Completion of 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: Completion of 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. 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. History of India (3)**

This is a survey of the history of the South Asian subcontinent 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)**

This is a survey course in the political and cultural history of the peoples of modern Southeast Asia. After an overview of traditional civilizations, the history of modern Southeast Asia (from roughly 1815) will emphasize expansion of European influence in the political and economic spheres, the growth of nationalism and the process of decolonization in Southeast Asia, and the post-WWII configuration of the area. Both mainland Southeast Asia (Vietnam, Cambodia/ Kampuchea, Laos, Burma, Malaysia) and insular Southeast Asia (Indonesia, Philippines) 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.

405./505. Classical Japan (3)

Japan from prehistory to the fifteenth century. Connections to other Asian cultures, the influence of Buddhism, and development of Japanese esthetics exemplified in literature and art; dynamics of centralized vs. regional power; civil vs. military authority.

***406A. Asian Women: East and Northeast Asia (3)**

Prerequisite: Upper division status. In this course, we will explore the diverse experiences of women in China, Japan, and Korea. By studying different kinds of sources, including memoirs, biographies, literature, film, as well as scholarly works by or about North and Northeast Asian women, we will examine how gender was historically constructed and discuss about women's various forms of resistance in this

area. This course will proceed both chronologically and thematically. Major issues to be addressed include the discrepancy between gender norms and reality, women's agency in social change, women and the state, and the complex relationship between feminism and nationalism. Asian American women's experiences will also be discussed at relevant places throughout the course. At the end of the course, students are encouraged to critically reflect on some theoretical issues that have been discussed in the scholarship on women's history in general and North and Northeast Asian women's history in particular. Same courses as A/ST 406A and W/ST 406A.

***406B. Asian Women: South and Southeast Asia (3)**

This is an introductory course on the experiences of women in South and Southeast Asia. By studying kinds of sources, including memoirs, biographies, literature, film, as well as scholarly works by or about South and Southeast Asian women, we will examine how gender was historically constructed and how women's resistance took various forms of resistance in these areas. This course will proceed both chronologically and thematically. Major issues to be addressed include women's agency in social change, gender as a contentious site of nationalist discourse, the impact of colonization on women, and women's various forms of resistance. Same course as A/ST 406B and W/ST 406B.

4071. Japan and the United States in the 20th Century (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Examination of relationships between Japan and the United States, emphasizing cultural, economic and political conflict and cooperation.

409./509. Early Modern Japan (3)

Japan from the mid-16th century to the end of the Tokugawa period in 1868; reunification, the growth of urban centers and transportation, economic growth; blossoming of political theory, and of popular culture.

***410. Chinese Emigration/Migration in Modern Period (3)**

The history of Chinese emigration/migration in the world with an emphasis on Chinese experiences in Southeast Asia, the Americas, and Western Europe. Examines major factors that have shaped Chinese emigration/migration in the modern period, as well as its impact on world history. By studying the interactions of people and social networks that operate within and across the boundaries of nations, it explores the implications of human migration for the development of the world, the fluidity and contested nature of "nation-states," "national identities," and "nationalism," as well as the political and economic interests invested in these concepts by their subscribers, who have either participated in migration or endeavored to curb it. Will proceed both chronologically and thematically.

***487. Film and Chinese History (3)**

Examines the complex relations between history and film. The questions to be asked include: How have films made in China been informed by changes in the country? In what ways can film constitute history and contribute to historical debates? What are the advantages and disadvantages of film in representing history? What are the complex issues related to the historical representation in a transnational film? It discusses both feature and documentary films, as well as films made in Hong Kong and Taiwan. Upon successful completion of this course, students will enhance their ability to read film texts critically and will appreciate the importance of studying history in this visually oriented era.

***488. The Chinese Revolution (3)**

Prerequisite: HIST 382B or consent of instructor. Theory and practice of revolutionary socialism in the People's Republic of China, historical and ideological background of the Chinese revolution, Mao and Maoism, politics, culture and society in China. Same course as CHIN 488.

BRITISH

***353. 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.

***356. 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.

LATIN AMERICAN

362. Colonial Latin America (3)

Prerequisite: Completion of 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. The Latin American Nations (3)

Prerequisite: Completion of GE Foundation requirements. Political, economic, social and intellectual evolution of Latin America in the 19th and 20th Centuries.

***366. Latin American History and Literature (3)**

Latin American history through the novel and film; will integrate literature and the cinema with traditional historical materials in order to provide the student with a deeper understanding of the development of Hispanic America.

***461. History of Precolumbian Mexico (3)**

History of Meso-America from prehistoric times to the Spanish conquest, emphasizing the study of the societies and the religious and intellectual life of people of ancient middle America.

***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. The Caribbean and Central America (3)**

History of the Caribbean Islands and Central America from European colonization to the present, with emphasis on Cuba and Central America. Economic, political and cultural development and relations with the United States.

***466. Topics in Latin American History (3)**

Selected topics in Latin American History, including: (a) Revolutionary Latin America analyzing various 20th-century revolutionary movements, their social, political and cultural causes, and their international impact; (b) Slavery, Peasantry and Aristocracy analyzing examples of black slavery, peasant societies, and elites from the 16th century to the present; (c) Comparative History: Argentina and Brazil, or other pairs of states; colonial beginnings, with emphasis on geographical, economic, social, ethnic, and vital institutional elements. May be repeated, with different topics, for a maximum of nine units.

MODERN EUROPEAN

***304. The Holocaust (3)**

This course examines the attempted destruction of European Jews by Nazi Germany during the Second World War. Students will trace the roots of anti-Semitism in European history, the origins of Hitler's anti-Jewish assault, and the process from ghettoization to extermination. Other topics include the Jewish resistance inside Europe, the Western response during the war, and the world reaction fifty years after the Holocaust. Students will also explore how the Jewish tragedy is related to other crimes against humanity, including the massacre of Armenians, mass killing in Cambodia and Indonesia, and the issue of ethnic cleansing in Bosnia.

***332. The Italian Renaissance (3)**

Examination and analysis of intellectual, cultural, political and economic features of 14th, 15th, and 16th-century Italian civilization. Particular emphasis on interplay between new configurations and notions of power and their unique Italian cultural manifestations.

***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 reign of Henri IV through the commencement of the French Revolution, this course will explore the following themes: the expansion of royal authority and the challenges it faced during the 18th century; the functioning of the French economy and its growth through increased production, trade and colonization; geographic expansion; the impact of religion; development in the literary and visual arts as well as popular culture; the increasing social, political, cultural and intellectual importance of Paris; the French Enlightenment; demographic changes, social class dynamics and the rhythms of daily life; gender constructs and patriarchy; marriage, family life, birth and childhood.

***335. The Shaping of Modern Europe (3)**

European political, social, economic and intellectual life from the Treaty of Westphalia (1648) to the French Revolution (1789). Emphasis on the rise of statism, the triumph of science and mechanistic philosophy, absolutist monarchs (e.g., Louis XIV), enlightened despots (e.g., Frederick the Great), and philosophers (e.g., Voltaire), and the crisis of traditional society.

***336. 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.

337. Europe in the Nineteenth Century (3)

This course focuses on a tumultuous century of revolution and reaction from the French Revolution to the outbreak of World War I. Topics included are: industrialization and its repercussions; popular protest and mid-century revolutions; the rise of the bourgeois and liberal world and the political and social opposition to it; nationalism, including the unification of Germany and Italy; feminism, imperialism and daily life.

338. European Women's History (3)

European Women's History is an upper division course which investigates how European history has impacted on women and how women and women's issues have shaped historical events. Issues that the course will address include: the nature, methodology and approaches of women's history; the significance of the Enlightenment and French Revolution for women and the role women played in these events; the work women of all classes did, and how industrialization affected the position of women; women's role in and their relationship to 19th and 20th century wars and revolutions; women's health and sexuality; the role of the women in the family; women's socialization and education; the "Women Question" and attempts to remedy women's position; recent feminist theory; and a speculative look at the future of European women. Same course as W/ST 384.

339. Europe, 1890-1945 (3)

This course will explore the period in European history between the late nineteenth century (fin de siècle) and 1945 (the end of the Second World War). Amongst the themes that will be covered are: political, social, economic, international, and cultural crises prior to 1914; the development of modern artistic trends; the First World War and its impact; challenges to democracy; economic collapse; the rise of the Fascists in Italy and Nazis in Germany; the Spanish Civil War; the Second World War, and the Holocaust.

***340. Europe Since 1945 (3)**

This course examines the political, social, economic, and cultural development of Europe since the end of World War II. Themes will include the development of the Cold War, economic recovery, the rise of the welfare state, Eurocommunism, Gaullism, student unrest, national security and arms control, terrorism, the fall of communism and the transformation of East and Central Europe.

400I. History of Western Scientific Thought (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An interdisciplinary introduction to the history of science for both scientists

and non-scientists. Evolution of the scientists' views of the means and ends of their own activities; the ways in which science is affected by and affects contemporary cultures.

435. History of the Francophone World (3)

Commencing with a study of the evolution of the French language, this course explores the manner by which and the impact of the expansion of French influence and dissemination of French culture to the Francophone world. The themes to be covered include: the process of French colonial expansion; the relationship between French colonialism and circumstances and events in France; justifications for, and resistance to French overseas expansion; the impact of the colonial world on French culture; gender and colonialism; and, French conceptions of 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.

***483. Women in Eighteenth-Century England and America (3)**

Prerequisites: ENGL 100 and upper/division status. Study of representations and realities of women's lives, 1688-1800, from an international and interdisciplinary perspective. Critical methodology of history and literature; analysis of literary and historical texts to explore women's experiences of law and economics; religion; education and culture; marriage, sex, and health; politics and revolution.

ORAL HISTORY PROGRAM

402. Oral History Methods (1)

Through a series of workshops and through field experience, 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. Credit/No Credit grading only. Same course as C/LA 485.

4980. Directed Studies in Oral History (1-6)

Permission of faculty required. Directed study on a research topic using the methodology of oral history. May be repeated for a maximum of 6 units. Same course as C/LA 498.

RUSSIAN

341A. Foundations of Russia (3)

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)

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.

UNITED STATES

300. The United States Past and Present (3)

Concentrating on the rise of the U.S. to its present position as a world power, this course will explore the contributions of various racial and ethnic groups and of both men and women to that process, as well as the effects of developing political, economic, and social institutions and values upon that process. (This course is an upper-division survey and may not be taken for credit in the United States field. It is for upper-division transfer students in lieu of HIST 172 and 173.)

***369. American Jewish History (3)**

Both a chronological and a thematic approach to American Jewish History. Chronologically, covers the first Sephardic settlers, German Jews, Eastern European Jews, and recent migrants. Emphasis placed on the experiences these immigrants brought with them. Examples of major themes examined critically: assimilation, the transformation of traditions, American anti-Semitism, the branches of Judaism, mobility, Jewish women, American Jewish leadership of the Jewish Diaspora, Jewish/Christian relations, and the relationship of Jews with other minority groups. Letter grade only (A-F).

370. Chicano History (3)

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.

371. Religion in American History (3)

A survey of the main currents of religion in the development of American civilization from the beginning of the colonial period to the present. Themes of Judeo-Christian heritage, proliferation of denominations and new religions in an open environment. Awakenings and revivals, sectarian, communal, ecumenical and social action movements are among the topics explored.

***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.

377. The United States at War (3)

Since the discovery of "the new world," until the present time the United States has been engaged in a sequence of conflicts, wars, and military police actions. This course is designed to address and answer a variety of questions regarding how and why the United States goes to war. Topics for exploration include: Who were the Presidents going into and during each war? What were their political parties? What was the economic impact or impetus? What part did manifest destiny, the Monroe doctrine, and the cold war (the domino theory) of communism play? What about the issue of American nationalism? Do we go to war to protect ourselves, our image as a world power, as the result of an insult to our "national image," or for economic reasons? Is it the responsibility of the U.S. to be the watchdog for the world?

***378. United States History: 1877-1920 (3)**

The 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: Twenties, Depression, and World War II (3)**

The conflict-ridden 1920s; the Depression years, and the beginnings of welfare democracy; the United States in World War II.

***380. United States Since 1945 (3)**

The United States in the nuclear age: the development of the Cold War and its domestic ramifications, the "post-industrial" economy, the civil rights revolution, the rise of political dissent, the Watergate affair, the Reagan revolution, and after.

381. Asian American Women (3)

This course will explore the largely unwritten history of Asian American women. Using an inter-disciplinary perspective, we will look at not only secondary sources but also autobiographical, literary, and journalistic writings; oral histories, diaries, anthropological studies, psychological/clinical reports, and film to reconstruct the lives of Asian American women. We will examine how having been burdened by the triple oppression of gender, race, and class, Asian American women have been actively pursuing equality and dignity. Same course as ASAM 381 and W/ST 381.

***467. Long Beach History (3)**

Survey of the history of Long Beach, California, 1890 to the present. Emphasis on local and regional politics, economic development, international trade, and the complicated roles of ethnic and racial diversity in a city with both an urban, and suburban, history.

***469. Ethnic Groups in Urban America: An Historical Examination (3)**

An examination of the origin, migration, settlement and the assimilation problems of the various ethnic groups in major American cities since the late 19th century. Emphasis will be upon the economic, social, political and educational problems encountered by different groups attempting to adjust to urban life.

***471. History of the Westward Movement (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)**

The first half of the course offers a general examination of the Antebellum culture, traditions, and societal crisis. The second half offers an analysis of the modern South (post World War II) from the standpoint of political, economic and social change. Definite emphasis on roles and interactions of racial minority groups and women; insights into solidarity and conflict, and possible resolution of conflict.

***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.

474I. The Urbanization of Modern America (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Survey of urban America from the colonial period to the present. Emphasis on the process of urbanization, urban problems and politics.

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)**

The course 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.

***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 under the Marshall and Taney Courts. Emphasis throughout is on the evolution of constitutionalism as a working ideal 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.

***481. The Environmental History of Early America: 1500-1860 (3)**

Prerequisites: ENGL 100 and upper division status. This course will explore the economic, social, and cultural developments of early America, from the eve of colonial settlement through 1860, from the perspective of environmental history. It will examine how different groups of people occupying the North American continent - Native Americans, Europeans, Africans (and the descendants of these groups) - defined their relationship with the natural world and how they attempted to manipulate it according to their economic needs and cultural values.

***482. Recent American Environmental History (3)**

This course examines the interaction between humans and the natural world in the United States from the late nineteenth century to the present. It considers such diverse topics as 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.

485A. History of Women in the U.S. Early Period (3)
Provides a survey of the roles and activities of American women from colonial period to 1850; variety of female life experiences; slavery, immigration; relationships to the family, economy and political movements. Only 3 units of 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as W/ST 485A.

485B. History of Women in the U.S. Since 1850 (3)
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. Only 3 units of 485A,B may be applied to a field of concentration in U.S. history for the major. Same course as W/ST 485B.

***486. History of Afro-Americans in the United States (3)**
Course offers the students a historical examination of the roots and culture of Afro-Americans from the Colonial era to the present. This upper division course is designed to study the transformation from slavery to freedom; segregation and racial conflict; emigration patterns, societal interactions, and participation of other ethnic groups and women.

***489. 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 with different topics to a maximum of six units.

WORLD HISTORY

***396. Contemporary World History (3)**
A global approach to the study of the twentieth century, with an emphasis on the historical origins of the contemporary world. Key themes include the changing nature of the global economy; the advance and retreat of empires; contending ideologies: liberalism, fascism, communism and nationalism; the role of the United States in world history; colonialism and post-colonialism; and the legacies bequeathed to a new millennium.

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.

Graduate Level

501. Theories and Methodologies of History (3)
The development of history as a discipline, major schools of historical interpretation, and recent developments in analysis and theory. Emphasis will be placed on the interrelationships of history with other disciplines in the social sciences and humanities. Required of all graduate students.

505./405. Classical Japan (3)
Japan from prehistory to the fifteenth century. Connections to other Asian cultures, the influence of Buddhism, and development of Japanese esthetics exemplified in literature and art; dynamics of centralized vs. regional power; civil vs. military authority.

509./409. Early Modern Japan (3)
Japan from the mid-16th century to the end of the Tokugawa period in 1868; reunification, the growth of urban centers and transportation, economic growth; blossoming of political theory, and of popular culture.

510. 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). Course may be repeated to a maximum of 6 units in the same semester.

- A. Ancient and Medieval
- B. Modern European
- C. Literature of the Modern Middle East (Southwest Asia)
- D. Latin America
- F. United States
- G. Asia

531./431. The Middle East (Southwest Asia), 600-1700 (3)
This course surveys the history of the Middle East (Southwest Asia) from 600-1700: from the rise of Islam to the eighteenth century, with an emphasis on the background and circumstances of the rise of Islam, the creation and development of the Islamic Empire, the rise of dynastic successor states and "gunpowder" empires, European encroachment, and integration of the Middle East into the emerging world system. The course will focus on cultural, intellectual, social, economic, and political development and will situate the history of the region within its global context.

532./432. The Middle East (Southwest Asia), 1700-Present (3)
This course surveys the history of the Middle East (Southwest Asia) from 1700 to the present. The course will focus on modernization and reform, problems and impact of modernity and imperialism in social, political, and economic spheres, state building, nationalism, and Islamic revivalism and will situate the history of the region within its global context.

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.

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.

590. Topics in Comparative History (3)
Prerequisite: Consent of instructor. Selected themes in history involving cross-cultural and comparative approaches. May be repeated for a maximum of six units.

592./492. 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 six units.

595. Special Preparation (3)
Prerequisite: Graduate standing. Special preparation for the M.A. examinations under faculty direction. May be repeated for a maximum of 6 units. Permission of Graduate Advisor required.

611. Seminars in Ancient and Medieval History (3)
Prerequisites: Six units of upper division ancient or medieval history or consent of instructor. Selected topics in ancient or medieval history. May be repeated for a maximum of six units.

631. Seminars in European History (including Britain and Russia) (3)
Prerequisite: Consent of instructor. Directed reading and research in the political, economic, social and cultural history of Europe. May be repeated for a maximum of six units.

673. Seminars in United States History (3)
Prerequisite: Six units of upper division United States history. Selected topics in domestic or international affairs from colonial times to the present. May be repeated for a maximum of six units.

682. Seminars in East Asian History (3)
Prerequisites: Six units of upper division Asian history or consent of instructor. Selected topics in East Asian history. May be repeated for a maximum of six units.

695. Directed Readings (1-3)
Prerequisites: Consent of instructor. Readings on an individual basis. May be repeated for a maximum of six units.

697. Directed Research (1-3)
Prerequisite: Consent of instructor. Research on an individual basis.

698. Thesis (1-4)
Planning, preparation and completion of non-curricular work in history for the master's degree.

HEALTH SCIENCE

College of Health and Human Services

Department Chair

Robert H. Friis

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department offers undergraduate and graduate study in Health Education, and an undergraduate option in Radiation Therapy. For program information, students should contact the department office for referral to one of the faculty advisors: Director of Undergraduate Studies, Director of Radiation Therapy, Director of Graduate Studies or Single Subject Credential Advisor.

All Health Science majors and minors are responsible for requirements specified in the *University Catalog*. Students should meet periodically with either the Director of Undergraduate Studies, the Director of Radiation Therapy, or the

Director of Graduate Studies. Faculty advisors will discuss and review the student's academic program, program requirements and monitor academic progress. Students also have responsibility for keeping track of unit totals required for graduation and insuring that these requirements are met.

Program in Health Education

Health education programs help participants enhance health, prevent disease and disability, as well as help improve the well-being of people in organizations, schools, businesses, and communities. The program focuses on environmental influences, which include the cultural and societal context in which health behavior occurs; it also emphasizes processes for developing and changing individual attitudes and behaviors toward health.

The focus of health education is on planned change. Individuals are encouraged to take responsibility for their own health and to assume responsibility for the health of their families and communities.

As our society continues to change, health problems are re-defined. Future health advances will not only come from new technology, but also as the result of community, group, and individual actions. These factors will impact education, lifestyle, environment, and the organization and delivery of health services.

Brochures that describe each of the programs are available at the Health Science Department office.

Courses are designed to satisfy Health Science requirements for:

1. general education,
2. the baccalaureate degree major,
3. Single Subject Credential in Health Science,
4. Master of Science Degree with a Major in Health Science,
5. Master of Public Health Degree in Community Health Education.
6. Master of Science in Nursing/Master in Public Health

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 124 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 Radiation Therapy (code HSC_BS01) (124 units)

Admission Under Impaction

The number of applicants to the Radiation Therapy Option exceeds the number that can be accepted. For this reason, the Radiation Therapy Option has been designated as impacted by the California State University. Applicants are subject to supplemental criteria in addition to the requirements for admission to the University. Admission is on a competitive basis and is determined on the basis of meeting all of the following supplemental criteria.

1. Completion of a minimum of 56 semester units of college-level coursework, including all 12 units in the General Education foundation and at least 18 additional units of General Education courses.
2. Complete the following prerequisite courses with a grade of "C" or better: BIOL 200, 207, 208; IS 240; ENGL 102; MATH 119A; MICR 101; PHYS 100A, 100B.
3. Complete a minimum 40 hour observation in a Radiation Therapy Department and completion of the observation packet.
4. Submit an Option Application to include:
 - A. Three letters of recommendation (at least one from the radiation therapists at the observation site, the other two from employers and/or instructors)
 - B. Written personal statement
 - C. Academic and work history
5. Complete an interview with the Radiation Therapy Career Advisement Committee
6. Document transportation availability for travel to clinical sites for internship.

To apply to the Radiation Therapy Option, students must meet all of the requirements listed above.

Admission Under Impaction for Continuing Students

Students who indicate a Radiation Therapy Option major when they enter as freshmen will be assigned a pre-Radiation Therapy major code. Acceptance into the pre-major by the university does not imply or assure subsequent acceptance into the Option by the Department. Students who are not accepted into the Option cannot continue as pre-Radiation Therapy majors.

Prior to admission to the Radiation Therapy Option, continuing students must

1. Complete all of the basic criteria listed above
2. Complete HSC 200 Orientation to Radiation Therapy with a grade of "C" or better.
3. Submit Option Application by February 1.

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 Option will not be admitted to the university unless they have listed a second choice of major on the application form.

Prior to admission to the Radiation Therapy Option, transfer students must:

1. Complete all of the basic criteria listed above
2. Schedule an appointment with the Radiation Therapy Program Director or Clinical Coordinator

3. Attend a group Radiation Therapy Orientation session

4. Submit by February 1 the Option application

The Radiation Therapy Option is designed for individuals who wish to pursue a professional preparation program leading to membership in the health care team using ionizing radiation in the treatment of malignant and some benign diseases. The Option is competency-based and integrates didactic courses and clinical experience to prepare entry level radiation therapists to become integral partners in the health care team and contributing members of the profession. On a daily basis, the registered radiation therapist is involved in:

1. Operation of sophisticated radiotherapeutic equipment to deliver prescribed doses of ionizing radiation for the treatment of malignant and some benign diseases.
2. Providing psychological and emotional support to patients who are dealing with the stress of their illness.
3. Providing education to the patient and their family about their disease and all aspects of treatment.
4. Observing patient progress and recognizing medical problems that require a physician's attention.
5. Constructing devices to aid in treatment positioning, beam modification, and treatment planning.
6. Calculation of doses and use of treatment planning computers to determine dose distributions.

Successful completion of the Option requirements allows the student eligibility to apply for licensure examinations at the state and national levels to practice as a registered radiation therapist.

This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901, phone 312-704-5300) and the State of California, Department of Health Services, Radiologic Health Branch.

Required Radiation Therapy Option Courses

Students will take the following courses in sequence: HSC 150, 320, 310, 340, 341, 315, 392A, 492A summer, 470A, 445A, 341, 330, 311, 403, 470B, 445B, 342, 415, 435, 492B summer, 492B, 316, 451, 455, 475, 475L, 480 and 465.

All Radiation Therapy courses must be completed with a grade no lower than a "C". If a student earns a lower grade, the student must repeat the course and earn an acceptable grade before advancing to the next level of courses.

Option in Community Health Education (code HSC_BS02) (124 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: BIOL 200, 205, and either CHEM 100 or 111A; MICR 101; an additional anatomy and physiology, BIOL or MICR course approved by department advisor; Spanish (3 units) or language approved by Department Advisor.

Upper Division: H SC 301, 400, 401, 402, 403, 405, 421, 430, 435, 440, 485; Three courses selected from the following: H SC 420I, 422, 423, 425I, 427, 429, 490, 499; one course selected from the following: FCS 132 or 430; one course selected from the following: PSY 351 or SOC 335I; one course selected from the following: SOC 320, 336, 462, 464; and one course selected from the following: COMM 334, 335.

Option in School Health Education (code HSC_BS03) (124 units)

The School Health Option is designed for persons who desire to pursue a professional preparation program leading to a teaching credential as a health science teacher in California middle/high schools. The Program is approved by the California Commission on Teacher Credentialing.

A teaching credential requires completion of the School Health Option or a passing score on the SSAT, a BS/BA degree, GPA of 2.75 on the last 60 semester units and additional courses in the College of Education and Single Subject Teacher Education Program. After a student has completed 80% of the required lower division, upper division and subject matter courses, enroll in EDSS 300D: Introduction to Teaching Health Science, the prerequisite to begin the Single Subject Credential sequence.

As of July 1, 2002, all candidates for the Single Subject Level I Credential are required to demonstrate Level I computer proficiency by successful completion of ETEC 444 or by passing a California Commission on Teacher Credentialing approved examination.

Lower Division: BIOL 200, BIOL 205, MICRO 101, CHEM 100 or 111A, approved A/P, BIOL or MICRO course. PSY 100, Spanish (3 unit minimum) or language equivalent approved by HSC department advisor.

Upper Division: COMM 335 or approved upper division COMM course, EDP 302 or HDEV 307 or PSY 361, ETEC 444, FCS 132 or 430. Select one course from: ANTH 329, FCS 319, HSC 420, I/ST 491, PSY 378, SOC 320, 423.

Subject Matter Courses: HSC 210, 301, 401, 403, 421, 422, 423, 425, 427, 430, 435, 440

Option in Health Care (code HSC_BS04) (124 units)

The Option in Health Care is designed for those individuals who have received certification and/or license from an approved allied health/health care program and desire a Bachelor of Science degree. The focus of this option is the development of professional skills for people whose goal is: (a) providing service, or (b) instructing in the health care setting.

Admission Requirements

Once admitted to the University, students are required to complete the following prior to acceptance into the Health Care Option.

1. Obtain certification and/or license from an allied health/health care program from an institution that has been accredited by either a Committee on Post-secondary Accreditation (COPA) approved accreditation agency or the Committee on Allied Health Education and Accreditation (CAHEA). Those individuals who do not have appropriate certification will be counseled by the Department of Health Science regarding where to obtain an appropriate accredited program, and, when possible, concurrent enrollment may be utilized;
2. Earn a minimum GPA of 2.0.

Lower Division: Completion of general education requirements to include: ENGL 100; one of the following: ANTH 120, SOC 100 or PSY 100; and minimum of 12 units in Natural Sciences, approved by department advisor equivalent to: BIOL 200, 205, MICR 101 and an additional anatomy and physiology, BIOL or MICR course approved by faculty advisor; either CHEM 100 or 111A, .

Upper Division: (39 units): Required Core: 15 units (three units from each area); courses must be selected in consultation with an option advisor:

- A. Statistics: H SC 403 or ED P 419;
- B. Program Development: H SC 430, H CA 320, or H SC 455 and H SC 316;
- C. Professionalism: H SC 451 or HCA 340;
- D. Health Organization: H SC 401 or 420I;
- E. Health Promotion: H SC 435 or HCA 402;

Additional coursework: H SC 400 and one of the following: HDEV 320 or H SC 405; one of the following: ANTH 353, FCS 430, H SC 424, or SOC 462; one of the following: POSC 329, or ECON 300; an emphasis in either (a) Providing Services (12 units): HCA 410, 465; one of the following: ED P 434B, H SC 421 or 492A/B and one of the following: ANTH 319, GERN 400I, 482, or NRSRG 482; or (b) Instructing in the Health Care Setting (12 units): HCA 410, 465 and one of the following: H SC 492AB (3 units), ED P 432, or I/ST 491; and one of the following ED P 305, 434B or HSC 421.

Minor in Health Science (code HSC_UM01)

Twenty-four units as follows: H SC 301, 401, 430, 435, 440, and three courses from: H SC 400, 420I, 421, 422, 423, 425I, 427.

Single Subject Credential in Health Science Education (code 130)

The Single Subject Teaching Credential in Health Science prepares one to teach health science in California middle/high schools. Requirements include: a) Bachelor of Science Degree in Health Science with a completion of the school health option from a program approved by the California Commission on Teacher Credentialing or BS/BA and a passing score on the SSAT in Health Science b) GPA of 2.75 on the last 60 semester units c) Professional education courses beyond the B.S. which begin with EDSS 300D: Introduction to Teaching Health Science d) student teaching in health science. See the Health Science Single Subject Advisor.

As of July 1, 2002, all candidates for the Single Subject Level I Credential are required to demonstrate Level I computer proficiency by successful completion of ETEC 444 or by passing a California Commission on Teacher Credentialing approved examination. This requirement must be met prior to advancement to student teaching.

Graduate Program in Health Education

Accredited by the Council on Education for Public Health (Council on Education for Public Health, 1015 Fifteenth Street, NW, Washington, DC 20005, phone: 202-789-1050).

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.

Master of Science in Health Science (code HSC_MS01)

The Master of Science program is designed to provide students with:

1. intensive study of health education concepts, theories, and processes;
2. introduction to public health concepts and issues;
3. research methodology appropriate to the in-depth examination a health topic.

The graduate student is also prepared for a leadership role in a school or community setting and for admission to doctoral programs at other colleges and universities. 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.

Admission Requirements

Applicants must apply both to the Department and the University. Applications are available from the Department office.

1. Each applicant must request a copy of official transcript(s) of all work be sent to the Graduate Director in the Health Science Department in addition to the transcripts required by the 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 that 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. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit 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 approved 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 the analytic, quantitative and verbal scores from the Graduate Record Examination (GRE) and a copy of the CSU graduate application to the Department.
7. Three letters of recommendation from persons with whom the candidate has worked and who have direct knowledge of the applicant's qualifications and potential as a community health educator.
8. 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 work experience.

Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy:
 - A. pass the Writing Proficiency Exam;
 - B. maintain at least a 3.0 average for all course work attempted as a graduate student;
 - C. complete H SC 500, 503, and 570;
2. Approval by the Director of Graduate Studies and the Associate Dean of Academic Programs of the College of Health and Human Services.

Requirements for Completion of the Master of Science

1. A minimum of 43 units of approved upper division and graduate courses including:
 - A. 21 units of Health Science courses, which include HCA 502, H SC 500, 503, 570, 581, 696;
 - B. 18 units of electives in a specialty field;
 - C. 4 units of H SC 698;
2. A thesis with an oral exam.

Master of Public Health

Option in Community Health Education (code HSC_MH01)

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 in program planning 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 from the Department office.

1. Each applicant must request that a copy of official transcript(s) of all work be sent to the Director of Graduate Studies (in addition to the copies required by the 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. Prerequisites for all courses carrying graduate credit must have been completed within seven years of taking the graduate courses. If any prerequisite is outdated, it may be repeated or credit 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 a copy of the CSU graduate application and quantitative and verbal scores from the Graduate Record Examination (GRE) to the Department.
7. Three letters of recommendation from persons with whom the applicant has worked who have direct knowledge of the applicant's professional and academic potential as a health educator.

8. 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.
9. 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. pass the Writing Proficiency Examination;
 - B. maintain at least a 3.0 average for all course work attempted as a graduate student;
 - C. complete H SC 500, 503, and 570;
2. Approval by the Director of Graduate Studies and Associate Dean for Academic Programs of the College of Health and Human Services.

Requirements

1. A minimum of 42 units of approved upper division and graduate-level courses including:
 - A. core: HCA 502, H SC 500 -or- MICR 429, H SC 503 -or- BIOL 565 (4), 508, 528, 570, 581, 624, 625, 626, 696;
 - B. Electives at the 500/600 level;
 - C. H SC 585, a supervised internship experience (6 units)
2. A comprehensive written examination (see Department for guidelines).

Master of Science in Nursing/Master of Public Health (code NRSGMN01)

The Departments of Nursing and Health Science offer a concurrent Master of Science and Master of Public Health degree available to qualified students who desire advanced preparation in the area of public health nursing with a practice focus on primary prevention, illness prevention, and health promotion. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two Departments in each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines and community services to promote health. The Master of Science and Master of Public Health (Health Education Option) provides the opportunity for students to specialize in advanced practice public health nursing within the general context of the Masters of Public Health, to increase competence in designing, implementing, and evaluating behavior change programs in preparation for serving in various health agencies. The focal point in this curriculum is the Nursing Process, Epidemiological Process Model, and Population Based Theory complemented by behavioral science concepts. Courses are interdependent and have been structured to provide clinical depth in the area of advanced practice public health nursing.

Each applicant should request a copy of official transcript of all college course work be sent to the Department Graduate

Advisor of Nursing in addition to the copies required by the Office of Admissions and Records.

Admission Requirements

1. Bachelors degree in nursing or currently enrolled in accelerated RN to Masters program. Those nurses with Baccalaureate degrees in health related fields may be conditionally admitted.
2. Current license to practice as a registered nurse in California.
3. Admission to graduate standing at the University.
4. An upper division or graduate course in biostatistics (HSC 403 or Ed. Stat 419) and an ethics course (HSC 451).
5. Public Health Nurse Certificate, or eligibility for certificate in California.
6. An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis.
7. Submission of quantitative and verbal scores from the Graduate Record Examination (GRE).
8. Three letters of recommendation from persons with whom the applicant has worked and who has direct knowledge of the applicant's qualifications.
9. A separate personal statement of applicant's reasons for pursuing this field of study and comments about interests and experiences, which are germane to career objectives.
10. Current professional resume describing the applicant's relevant experience.

Advancement to Candidacy

A joint committee, consisting of Nursing and Health Science faculty involved in the program, will review files and make determination to advance a candidate to graduate status.

Student Criteria for Advancement

1. Satisfy the general University requirements for advancement to candidacy in Nursing and Health Science.
 - A. pass Writing Proficiency Examination
 - B. have at least a 3.0 grade point average for all course work attempted as a graduate student
2. Joint approval by the Department of Nursing and Health Science, and the Associate Dean for Academic Programs of the College of Health and Human Services.

Requirements

1. A minimum of 57 units of approved Nursing and Health Science upper division and graduate level courses including: HSC 500 or MICR 429; HSC 503 or BIOL 565; HSC 508, 528, 535, 570, 581, 624, 625; NRSB 660B, 680A, 680B, 680C; NRSB 680AL, 680BL, 680CL or HSC 626 (in lieu of one 3 unit 680L); NURS 696 or HSC 696; NURS 695 or HSC 697 or NURS 698
2. An overall GPA of 3.0 or better in all courses
3. Comprehensive written examination or directed project or a thesis
4. Graduate degrees obtained previously will be accepted toward meeting the unit requirements of the concurrent MSN/MPH degree program
5. If a student after entering the concurrent MSN/MPH program returns to a single degree program, all requirements for the single degree program must be met
6. Transfer units will not be accepted toward the concurrent MSN/MPH program.

Courses (H SC)

Lower Division

150. Medical Terminology (1)

Development of a medical vocabulary emphasizing the building of terms utilizing prefixes, combining forms and suffixes. Includes symptomatic, therapeutic, diagnostic and operative terms for application in the interpretation of medical records as needed in Radiation Therapy. (Lecture-discussion 1 hour.) Letter grade only (A-F).

200. Orientation to Radiation Therapy (3)

Orientation to the Option in Radiation Therapy, professional organizations, career opportunities, department structure, patient management, record keeping, and professional ethics. An overview of the role of radiation therapy in the treatment of cancer and the Radiation Therapist in the field of Radiology. 40 hours of clinical fieldwork required. Letter grade only (A-F).

210. Contemporary Health Problems (3)

Prerequisite: Completion of the 13 unit GE foundation requirements. Development of modern health knowledge, attitudes and behavior: includes family life-sex education, drug use and abuse, mental health, medical quackery and health frauds, common diseases such as sexually transmitted diseases, heart disease and cancer.

Upper Division

301. Orientation to Health Science (3)

Overview of the philosophy of the Health Science Dept. Orientation to the degree requirements, career opportunities, and the theoretical and practical issues of health education as a profession. Must be taken prior to H SC 401 and 430.

310. Radiation Therapy Patient Care I (2)

Prerequisite: Admission to the Radiation Therapy Option Professional Preparation or consent of instructor. This course focuses on the role of the radiation therapist, communication, self care, basic patient care, patient assessments and examinations. Emphasis is on infection control, medical emergencies, care of patients with tubes, basic pharmacology and medication administration. Letter grade only (A-F).

311. Radiation Therapy Patient Care II (2)

Prerequisites: Admission to the Radiation Therapy Option Professional Preparation or consent of instructor, HSC 310. Continuing study of patient care in radiation therapy. This course focuses on the psychosocial aspects of cancer diagnosis, death and dying, patient education and intervention for treatment related sequelae. Includes an examination of local, state and national cancer resources. Letter grade only (A-F).

315. Seminar in Radiation Therapy I (2)

Prerequisites: Concurrent enrollment in HSC 492A, admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Introduction to the clinical radiation therapy arena which includes: patient population and statistics, patient flow in the department, various components of a department, interdepartmental interactions and interactions with other departments, and the exploration and discussion of the various treatment modalities available. Letter grade only (A-F). (Lecture discussion, 2 hrs)

316. Seminar in Radiation Therapy II (2)

Prerequisites: Concurrent enrollment in HSC 492B, admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Comprehensive analysis of case studies in the clinical setting. This will include a thorough review of a patient's history and treatment rationale. Letter grade only (A-F). (Lecture discussion, 2 hours)

320. Radiologic Techniques and Imaging Modalities (3)

Prerequisites: Admission to Radiation Therapy Option Professional Preparation or consent of instructor. Introduction to radiographic procedures, equipment, technique development, equipment maintenance as well as darkroom equipment, operation and film processing. An examination of the various modalities of radiologic diagnostic imaging. (Lecture-discussion 2 hrs, Lab 1 hr.) Letter grade only (A-F).

330. Topographic Anatomy (2)

Prerequisites: BIOL 207, 208, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. Examination of external anatomic landmarks in relation to internal anatomy with emphasis

on the effects of positioning on external landmarks, internal anatomic critical structures, and methods of avoiding or lowering radiation dose to these structures. Interpretation of port films and other diagnostic films is included. (Lecture-discussion 2 hr). Letter grade only (A-F).

340. Clinical Radiation Therapy (3)

Prerequisites: H SC 200, 320, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. Rationale of radiation therapy treatments; construction of immobilization devices, contours, bolus, and positioning aids. Examination of simulation procedures, contrast media, film, treatment positioning, beam modifiers, patient monitoring, and radiotherapeutic machine operation. (Lec-discussion 2 hrs, Lab 2 hrs.) Letter grade only (A-F).

341. Clinical Radiation Therapy II (1)

Prerequisites: HSC 340, concurrent enrollment in HSC 445A, admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Examination of site specific techniques used in radiation therapy. Focus will be on techniques used to treat cancers of the skin, head and neck, lung, esophagus, breast, gastrointestinal, kidney and bladder. Letter grade only (A-F). (Lecture discussion, 1 hour)

342. Clinical Radiation Therapy III (1)

Prerequisites: Concurrent enrollment in HSC 445B, admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Examination of site specific techniques used in radiation therapy. Focus will be on techniques used to treat cancers of the reproductive system, central nervous system, eye, endocrine and major digestive glands, bone, soft tissues, blood, lymphatics and pediatric solid tumors. Letter grade only (A-F). (Lecture discussion, 1 hour)

400./500. Principles of Epidemiology (3)

Prerequisites: H SC 301 and 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. (Lecture 3 hours)

*401. Community Health Education (3)

Prerequisite: H SC 301 and H SC 430. 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.

*402. Applied Concepts of Community Health Education (3)

Prerequisites: H SC 301, 430, 435. 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.

*403. Community Health Statistics (3)

Prerequisites: G.E. math and SOC 250 or PSY 110 or equivalent. Representative topics are descriptive statistics, sample designs, central tendency, and variability. Statistical tools for inferential analyses include hypothesis testing, statistical power, and parameter estimation. An introduction to bivariate analyses is provided. (Lecture 2 hours, Laboratory 2 hours)

405. Health Education Program Evaluation and Measurement (3)

Prerequisite: H SC 403 or equivalent. Design, use of standardized measurements, data collection, analysis, and reporting are used to develop evaluation skills to facilitate program management. Impact of activities aimed at producing behavior change in communities, organizations, groups and individuals will be examined. (Discussion 3 hrs)

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 drug use and abuse, human sexuality, community and human ecology (meets state credential requirement for health education). Not open 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 drug use and abuse, human sexu-

ality, community and human ecology (meets state credential requirement for health education). Not open to Health Science majors or minors.

415. Radiation Biology (2)

Prerequisites: BIOL 207, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. An examination of: the effects of radiation at the cellular, tissue and organ levels; the cell survival curve, Linear Energy Transfer, (LET), Radiobiological Effectiveness, (RBE), radiation sensitizers and protectors; the effects of whole body acute radiation as well as the developing embryo; the radiobiological basis for radiation therapy treatments and fractionation. (Lecture-discussion 2 hours) Letter grade only (A-F).

420I. International Health (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations 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.

421. Health Behavior (3)

A 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).

422. Environmental Health (3)

An examination of the reciprocal relationship existing between man and his environment, with the emphasis directed toward the health related consequences of man's actions in the environment.

423. Consumer Health (3)

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.

424./524. Alternate/Complementary Health (3)

Prerequisites: Upper division standing. This course presents the philosophical, historical, clinical and scholarly aspects of complementary/alternative health (CAH) to promote health, prevent disease and treat illness. Emphasis will be placed on the efficacy of CAH in the U.S. A minimum of twelve modalities will be analyzed. (Lecture/demonstration/discussion 3 hours).

425I. Human Sexuality and Sex Education (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations 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 to students with credit in H SC 327.

429. Stress Reduction (3)

Recognition of stress and its causes. Physical and mental symptoms of stress. Influences which reduce or create stress; methods of coping.

***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.

435./535. Health Promotion and Risk Reduction (3)

Prerequisites: 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. (Discussion 3 hours)

***440. Applied Concepts of Health Science (4)**

Prerequisite: H SC 430. 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. (Lecture 3 hours; laboratory 3 hours) Letter grade only (A-F).

445A. Oncologic Pathology I (3)

Prerequisites: BIOL 207, 208, H SC 150, Admission to Radiation Therapy Professional Preparation or consent of instructor. Examination of oncologic pathology with emphasis on malignant neoplasia; specific attention is given to epidemiology, etiology, detection, diagnosis, staging, histopathology, metastatic pattern, treatment options and principles of radiation therapy treatments. Examines cancers of the head and neck, lung, breast, gastrointestinal tract, kidney, and bladder. (Lecture-discussion 3 hours) Letter grade only (A-F).

445B. Oncologic Pathology II (3)

Prerequisites: H SC 445A, Admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Continuation of 445A with specific attention given to cancers of the reproductive system, central nervous system, eye, skin, endocrine and major digestive glands, bone, soft tissue, blood, lymphatic system and pediatric solid tumors. (Lecture-discussion 3 hours) Letter grade only (A-F).

***450. The Health Care Professional in the United States (3)**

Identification of the role and function of the health care professional; legal aspects of health care delivery; factors influencing the quality of health care, problems from consumers' viewpoints; cultural influences; governmental involvement and current issues in health care; examination of health care in the United States.

***451. Ethics Professionalism in Health Care (3)**

Examination of professionalism and bioethics, and the process of making moral decisions; ethical issues; professional oaths and codes of ethics; health care ethics and the law.

455. Quality Management in Radiation Therapy (1)

Prerequisites: HSC 470B, admission to the Radiation Therapy Option Professional Preparation or consent of instructor. A review of the principles of quality management with an emphasis on specific quality assurance tests in radiation therapy. Students will be given the opportunity to either perform or observe a demonstration of each quality assurance test. Letter grade only (A-F).

***460. Health Care Program Development (3)**

Examination of the process of health care, program development, identification of contemporary health care philosophy, needs, legal aspects, objectives and community involvement as related to program development; process of conducting a needs assessment; factors affecting development; regionalization; grantsmanship.

465. Radiation Therapy in the Health Care Industry (3)

Prerequisite: Admission to the Radiation Therapy Option Professional Preparation or consent of instructor. Examination of the health care market with emphasis on current radiation therapy trends in the health care environment. This class will focus on various radiation therapy operational and budgetary issues, hospital and governmental accreditation, types of insurance and reimbursements. Letter grade only (A-F). (Lecture discussion, 3 hours)

470A. Clinical Radiation Physics I (3)

Prerequisites: PHYS 100A,B; admission to Radiation Therapy Option Professional Preparation or consent of instructor. Nature and description of the structure of matter and energy; interactions of photons and gamma radiation; instrumentation and measurement of ionizing radiation, beam quality, and dose; percentage depth dose, tissue air ratios, treatment dose calculations. (Lecture-discussion 2 hours, Laboratory 2 hours) Letter grade only (A-F).

470B. Clinical Radiation Physics II (3)

Prerequisites: H SC 470A, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. A continuation of H SC 470A with emphasis on electron beam characteristics and use in radiation therapy, brachytherapy, radioactive sources, implantation methods and dosimetry. An overview of hyperthermia, particle radiation and radiation protection. (Lecture-discussion 2 hours, Laboratory 2 hours) Letter grade only (A-F).

475. Treatment Planning – Dosimetry (2)

Prerequisites: H SC 470A,B, Concurrent enrollment in H SC 475L, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. Examines the effects of treatment distance, field weighting, beam modifiers, irregular fields, tissue inhomogeneities and tissue compensation on dose. Dose calculations for external photon and electron beams. (Lecture-discussion 2 hours) Letter grade only (A-F).

475L. Treatment Planning – Dosimetry Laboratory (1)

Prerequisites: Concurrent enrollment in H SC 475, Admission to Radiation Therapy Option Professional Preparation or consent of instructor. Practical experience with clinical situations in regards to calculation of treatment time/monitor units, gapping, irregular fields, rotational and arc treatments. Use of isodose curves for hand dose summations and treatment planning computer for complex field arrangements. (Laboratory 3 hours) Letter grade only (A-F).

480. Advanced Radiation Therapy (2)

Prerequisites: Must be in final semester of Radiation Therapy Option Professional Preparation. Synthesis of previous didactic and clinical information; an in depth examination of current and future professional issues, technological advances and ethics; a look at professional preparation, organizations and continuing education. (Lecture-discussion 2 hours) Letter grade only (A-F).

*485. Internship in Health Education (3)

Prerequisites: H SC 401 and consent of instructor. Supervised observation and field experience in community health education as conducted by official, voluntary and professional health organizations.

490. Independent Studies in Health Science (1-3)

Prerequisite: Consent of instructor. Students will conduct independent library or laboratory research under the supervision of a faculty member and write a report of the investigation. May be repeated for a maximum of six units.

492A. Internship in Health Care (1-7)

Prerequisite: Consent of instructor. Supervised observation and field experience in community health and medical facilities. Student responsible for successful completion of clinical objectives applicable to area of observation. Letter grade only (A-F). Course may be repeated for a maximum of seven units.

492B. Internship in Health Care (1-9)

Prerequisites: Consent of instructor. Supervised observation and field experience in community health and medical facilities. Student responsible for successful completion of clinical objectives applicable to area of observation. Letter grade only (A-F). Course may be repeated for a maximum of nine units.

*499. Special Studies (1-3)

Group investigation of selected topics. Topics to be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of 9 units with change of topic.

Graduate Level

500./400. Principles of Epidemiology (3)

Prerequisites: H SC 301 and 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. (Lecture 3 hours.)

503. Advanced Community Health Statistics (3)

Prerequisite H SC 403 or equivalent. Analysis and interpretation of quantitative health education/public health data. Topics include expanded discussion of parametric techniques (e.g., hypothesis testing, confidence interval estimation, power functions, small sample sizes). Other topics include multivariate analyses, non-parametric tests, regression analysis. Use of computers required. Letter grade only (A-F). (Discussion, 3 hours)

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.

516. Health Promotion in Organizational Settings (3)

Prerequisite: H SC 570. Exploration of health promotion programs in worksite settings, health services, business and industry. Assessment of the organizational climate for health promotion and principles for maintaining program viability and vitality. Strategies for developing and conducting health promotion programs in these settings. Letter grade only (A-F). (Discussion, 3 hours)

524./424. Alternate/Complementary Health (3)

Prerequisites: Upper division standing. This course presents the philosophical, historical, clinical and scholarly aspects of complementary/alternative health (CAH) to promote health, prevent disease and treat illness. Emphasis will be placed on the efficacy of CAH in the U.S. A minimum of twelve modalities will be analyzed. (Lecture/demonstration/discussion 3 hours).

528. Advanced Environmental Health (3)

Prerequisite: H SC 422 or consent of instructor. Organization and methods for promoting human health by controlling environmental factors.

535./435. Health Promotion and Risk Reduction (3)

Prerequisites: 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. (Discussion 3 hours)

570. Theoretical Concepts and Issues in Health Science (3)

Identification and analysis of current trends, philosophies and issues in health science.

581. Curriculum Development in Health Education (3)

Prerequisites: H SC 430, 440. Principles of curriculum development; selection and evaluation of resource materials; theory and practice in measurement in health education.

585. Health Education Internship (1-6)

Prerequisite: Consent of the instructor. 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). Repeatable to a maximum of 6 units with different topics.

624. Seminar in Community Analysis and Program Planning (3)

Prerequisites: H SC 625 or consent of instructor. Process and techniques of community analysis and program planning.

625. Advanced Community Health Education (3)

Prerequisites: H SC 401 and 485; or consent of instructor. 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.

626. Integrative Seminar in Public Health (3)

Prerequisites: H SC 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)

Prerequisites: Undergraduate major in Health Science or related field; undergraduate course in statistics. Introduction to research methodology in the area of Health Science.

697. Directed Studies (1-3)

Prerequisite: Advancement to candidacy. Independent investigation of research problems in health education.

698. Thesis (1-3)

Prerequisites: H SC 696, advancement to candidacy. Planning, preparation and completion of an approved thesis.

INFORMATION SYSTEMS

College of Business Administration

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Richard D. Wollmer

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For all degree requirements see Business Administration.

Courses (I S)

Lower Division

233. Introduction to Computer Systems and Applications (3)
An introduction to the use of the Internet and e-mail, Windows, word processing, spreadsheet, and database applications; basic computer literacy. Credit/No Credit grading only.

240. Management Information Systems (3)
An introductory course in management information systems (MIS). MIS concepts and overview of computer technology. Development of information systems and its use in organizations. "Hands-on" experience with PC-based operating systems, Word processing, Spreadsheet, and Database management software packages.

Upper Division

300. Management Information Systems (3)
Prerequisites: Computer Proficiency Examination or I S 240 or 233 or equivalent. Information systems concepts and components, contemporary organizational applications, development and management of information systems, and future trends in information systems and technologies. Computer-based team

projects requiring the integration and application of conceptual and skills-oriented information systems knowledge in a business environment. Letter grade only (A-F).

301. Business Communications (3)
Analysis of the 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).

308. Knowledge Management (3)
Prerequisites: Completion of GE Foundation requirements. A broad introduction to the concepts, methods and practices of knowledge management. Information systems and management concepts are used to create workplace environments that encourage learning, innovation and positive change. Hands-on project requiring teamwork and community service. Letter grade only (A-F).

310. Business Statistics (3)
Prerequisites: MATH 114 and 115. Application of statistics to business problems. Topics include 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. Quantitative Analysis for Business Decisions (3)
Prerequisite: IS 310. Application of quantitative analysis and computer software for solving business problems. Topics include linear programming, integer programming, PERT and CPM, inventory control, queuing models, quality control, number basis, transportation and assignment models, and simulation. Use of computer software. Letter grade only (A-F).

340. Business Application Programming (3)
Prerequisites: I S 300 or 240. Visual programming systems. Object-oriented programming (OOP). Simple concepts to advanced topics, including labels, buttons and text boxes, menus, dialog boxes and multiple forms, arrays, and drag-and-drop functions. Letter grade only (A-F).

343. Business Programming (3)
Prerequisites: I S 300 or 240. This course introduces students to business computer programming. The C++ programming language will be used to familiarize the student with proper programming style and practice. Letter grade only (A-F).

355. Introduction to Business Telecommunications (3)
Prerequisites: I S 300 or 240. Introduction to concepts and technology of telecommunications and networking in business and organizations. Basics of voice, data, image, and video transmission; fundamental of networking; use of Internet technology; telecommunication regulation and standards. Letter grade only (A-F).

380. Database I (3)
Prerequisites: I S 300 or 240. 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)
Prerequisites: I S 300 or 240. Broad introduction to the concepts, methods, current and emerging practices of systems analysis and design. Topics include development process models, requirements analysis and system modeling, conceptual and physical design, systems implementation and maintenance, project management and teamwork, and the roles and responsibilities of systems analysts. Letter grade only (A-F).

445. Internet Applications in Business (3)
Prerequisites: IS 343. Design, management, and applications of Internet-based electronic business transaction systems. Special emphasis on Web home page design. Internet applications in functional areas including accounting, finance, marketing, and management. Intranet and groupware. Lecture, hands-on, software project, and case studies. Letter grade only (A-F).

446. Web Development and User Interface Design (3)

Prerequisites: I S 343. Theory and applications of Web page and user interface design using development tools such as Adobe Photoshop/Illustrator and FRONT PAGE HTML editor. Other issues such as Internet business opportunities, network security, home page maintenance, and cooperative computing will also be covered. Letter grade only (A-F).

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. Internetworking and Systems Integration (3)

Prerequisites: IS 355. Technology, application, operating system, infrastructure, and systems integration in internetworking and enterprise networking. Topics include interoperability, mobile system, multimedia, distributed and collaborative system, network management, fault tolerance, security and middleware, etc. Case studies and hands-on are employed. Letter grade only (A-F).

464./564. Network Modeling and Simulation (3)

Prerequisites: IS 310 and 355. Fundamentals of simulation methodology and its use in performance measurement and feasibility study of business models of real systems. Topics include: basic probability distributions, random number generation, model formulation, evaluating results, validations, waiting-line simulation, network fundamental, and computer network performance measurement via simulation, and use of computer software simulation packages. Letter grade only (A-F).

470. Decision Support Systems (3)

Prerequisites: IS 310, 380. Use of information systems technologies to support decision making by managers. Emphasis is given to individual and group decision support systems, expert systems, and executive information systems.

480. Advanced Database Concepts (3)

Prerequisite: 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).

483. Business Applications Using Java (3)

Prerequisites: I S 300 or 240. This course is designed to deal with opportunities and challenges in developing the information superhighway. The features, tools and languages of the Web will be learned and its services assessed. The course will discuss how an organization develops new functions, new ways of reaching customers, and their impacts to the society. The focus will include: 1) getting students familiar with the tools and technologies underpinning networking; and 2) identifying and evaluating opportunities emerging in electronic business. Letter grade only (A-F).

484. Electronic Commerce (3)

Prerequisites: I S 300 or 240. Although in its early infancy, Electronic Commerce is widely expected to bring comprehensive changes to life style and business transactions in the forthcoming decade with continuing technological breakthroughs. This course is to introduce some emerging concepts and practices in the field of on-line commerce via the Internet, which are shaping both consumer behaviors and business systems. Letter grade only (A-F).

485. Information Systems Project (3)

Prerequisite: 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 (1-3)

Prerequisites: Consent of instructor and GPA of 3.0 or higher in major. Topics of current interest in the field as announced in the *Schedule of Classes*. In the absence of significant duplication, may be repeated for a maximum of six units.

*497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair; student must be on Dean's List and have a GPA of 3.0 or higher in Management Information Systems. Individual projects, research, or study in the option.

Graduate Level

550. Business Telecommunications Management (3)

Prerequisite: 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).

564./464. Network Modeling and Simulation (3)

Prerequisites: IS 601 and 550. Fundamentals of simulation methodology and its use in performance measurement and feasibility study of business models of real systems. Topics include basic probability distributions, random number generation, model formulation, evaluating results, validations, waiting-line simulation, network fundamental, and computer network performance measurement via simulation, and use of computer software simulation packages. Letter grade only (A-F).

580. Management Support Systems and Database Management Systems (3)

Prerequisite: IS 602 or equivalent. Management Support Systems (MSS) with special emphasis on database management techniques. Use of information and database techniques to support management decision making. Topics include individual and group 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. Hands-on projects on both MSS and DBMS. Letter grade only (A-F).

584. Electronic Commerce (3)

Prerequisite: IS 602 or equivalent. A comprehensive managerial-oriented examination of the development of various electronic commerce applications on the internet. Major applications include advertisement and marketing, customer service, stocks and commodities, trading, market and product research and standard business-to-business transactions. EDI implementation issues such as security and payment methods. Letter grade only (A-F).

601. Quantitative Methods for Managerial Decision Making (3)

Prerequisite: MBA standing required. 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. Computer software packages will be used as analytical tools. Course may be repeated to a maximum of 3 units. Letter grade only (A-F). Not open to students with credit in I S 501.

602. Management Information Systems (3)

Prerequisite: MBA standing required. This course covers topics of management information systems including: foundation and infrastructure of information technology applied to strengthen competitiveness; effective utilization of strategic information systems, telecommunications, system development process, database concepts, electronic commerce, etc. to enhance organizations' operations. Letter grade only (A-F). Not open to students with credit in IS 502.

685. Internet/Intranet Application Development (3)

Prerequisites: IS 602 or equivalent and permission of the 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).

695. Selected Topics (3)

Prerequisites: Graduate standing and consent of instructor. Topics to be announced in the *Schedule of Classes*.

697. Directed Studies (1-3)

Prerequisites: Graduate standing and consent of instructor. Individual study under the direction of the faculty.

INTERDISCIPLINARY STUDIES

University Academic Programs

Dean of Undergraduate Studies

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Dean of Graduate Studies

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View the CSULB *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

University Academic Programs is the administrative designation for a group of University-wide academic programs that are interdisciplinary in nature. The Interdisciplinary Studies program offers students the opportunity to develop individualized cross-disciplinary majors utilizing courses from appropriate departments at California State University, Long Beach. Each student, with the help of department faculty advisors, must select courses and focus his/her major on the basis of a unifying issue, theme or topic called an area of concentration. The area of concentration must meet three criteria to be acceptable:

- First, the area of concentration must be interdisciplinary. This means the area of concentration must integrate and focus approaches and knowledge from at least two fields or disciplines. The principle of integration can be historical, regional, thematic or problem-focused.
- Second, the area of concentration must not replicate any existing major. The purpose of the Interdisciplinary Studies major is to create an individualized curriculum where no structure or formal program exists.
- Third, the area of concentration must be feasible. Each student's proposed program must be discussed with faculty advisors to ensure that the range and number of courses required will be available.

The student's role in the selection of the area of concentration is active not passive. The student must actively plan his/her program and cultivate relationships with assigned or chosen faculty. Furthermore, the student has the initial responsibility in shaping his/her program, with the guidance of the department advisors.

Bachelor of Arts in Interdisciplinary Studies (code IDSCBA01) (120 units)

The Interdisciplinary Studies major for the Bachelor of Arts degree allows selected students to engage in an individualized baccalaureate program when legitimate academic and/or professional goals cannot be accommodated by existing academic programs or combinations of such programs (i.e., majors, minors, certificates). Acceptance into the ISP program is a privilege and not a right of CSULB students. Interdisciplinary Studies consist of a closely correlated program of study in two or more departments developed in conference with faculty members from the respective departments who have the academic and professional expertise necessary to support the individualized course of study.

The Interdisciplinary Studies Program is not a means of bypassing normal graduation requirements nor a means by which students may seek to graduate who have failed to gain admission to impacted programs nor to complete a degree major in which they are currently enrolled. Consequently, a candidate must apply for approval of an interdisciplinary Studies Program when:

1. At least one full year of academic work (30 units) remains to be completed to meet minimum graduation requirements;
2. At least 2/3 of the upper-division (300-400) units in the proposed course of study remain to be completed at the time the application is submitted for approval; and
3. The GPA in the current major is 2.0 or better. A higher grade-point average may be required if the major department in the Interdisciplinary Studies program of study is impacted or requires a higher GPA for transfer students.
4. An Interdisciplinary Studies program must be justified by legitimate career, academic, and/or professional goals commensurate with the broader mission of the University in baccalaureate education. Interdisciplinary Studies majors are considered on a case-by-case basis. Approval is determined on the basis of the academic merit of the proposed course of study, the proposal rationale, the applicant's potential for successful completion of the program, the potential application of the resulting degree, and the ability of the University to support the proposed program. It is the student's responsibility to provide a clear written statement of the goals for his or her program of study, and the reasons these goals cannot be accomplished using and existing major, or combination of major and other available programs, and or concentrations of course work.

Procedures

1. To prepare for the initial interview:
 - A. Review the CSULB Catalog Interdisciplinary Studies Program requirements.

- B. Meet with the ISP Director and consider your reasons for deciding on an Interdisciplinary Studies Program major; including why a traditional major, double major, major and a minor, or other conventional educational pathway will not suffice. Discuss with the ISP Director what Disciplines/Departments you are interested in combining, and explain how this combination will:
- 1) Enhance your goals and objectives during your college education;
 - 2) Impact your career goals and objectives;
 - 3) Provide you with an opportunity to obtain skills and knowledge not otherwise available at CSULB through conventional programs and degree options.
2. Meet with the Department's Undergraduate Advisor, or in the absence of a Department Undergraduate advisor meet with the department chair from each prospective department to be included in the ISP special major. With the guidance of these individuals, create a tentative program of study, subject to the Director of ISP's approval.
 3. Draft a program of study with the assistance of the undergraduate advisors and/or chairs of the various departments you wish to combine. Arrange a meeting with the Department Undergraduate Advisor and the Department Chair of each of the departments you will be including in your program of study. With their guidance develop a list of courses (a program of study) that will constitute your special studies degree program. Once approved and signed by both the Department Undergraduate Advisors and Department Chairpersons, any subsequent change in this program of study will require the approval of the Department Undergraduate Advisors and the Director of ISP. Changes must be made using the official Program Addendum forms.
 4. Draft a three-to-four page proposal essay outlining the program of study you have created. State what you foresee will be the length of time you will need to complete your degree. Explain why no existing degree will assist you in terms of achieving your intended goals or propelling your future career.
 5. Return your program of study with all signatures to the Interdisciplinary Studies Director, along with your typed interdisciplinary studies proposal. Completed programs must be approved by the Interdisciplinary Studies Director and will be filed in the Interdisciplinary Studies Office and the Records Office. Be advised that pending final approval of your interdisciplinary studies program, you should proceed with the course work for your previously declared major or with General Education and elective courses. You should delay taking courses that will count only toward the fulfillment of your Interdisciplinary Studies Program until the semester following formal admission into the major. Thus, in the event you are not accepted into the Interdisciplinary Studies program, you will not have impeded your academic progress.

Requirements

1. An interdisciplinary studies major consists of a maximum of four lower-division courses (100-200) and a minimum of 28 units of upper-division courses (300-400) totaling a minimum of 40 units in the program.
2. An Interdisciplinary Studies Program is based on a thematically cohesive core of classes involving significant work in two or more disciplines. A proposal must accompany the program and be signed by the faculty advisors when the program is submitted to the Interdisciplinary Studies Program Director for approval.
3. Interdisciplinary courses (1) taken to satisfy General Education requirements may be double-counted to meet Interdisciplinary Studies Program unit requirements, if the program consists of more than 48 units of credit.
4. The maximum amount of course work that may be taken in one department is 60% of the total course work designated for the program.
5. Students may need more than four lower-division courses to prepare for the upper-division courses in their major. However, no more than four of these lower-division courses will be counted in the official program.
6. Students must maintain a 2.0 or better GPA in their program course work in order to remain in the major.
7. Each Program course and prerequisite course must be completed with a grade of 'C' or better.

Bachelor of Science in Interdisciplinary Studies (code IDSCBS01) (124 units)

The Interdisciplinary Studies major for the bachelor of science degree allows selected students to engage in an individualized baccalaureate program when legitimate academic and/or professional goals cannot be accommodated by existing academic programs or combinations of such programs (i.e., majors, minors, certificates). Acceptance into the ISP program is a privilege and not a right of CSULB students. Interdisciplinary Studies consists of a closely correlated program of study in two or more departments developed in conference with faculty members from the respective departments who have the academic and professional expertise necessary to support the individualized course of study.

The Interdisciplinary Studies Program major is not a means of bypassing normal graduation requirements nor a means by which students may seek to graduate who have failed to gain admission to impacted programs or to complete a degree major in which they are currently enrolled. Consequently, a candidate must apply for approval of an Interdisciplinary Studies Program major when:

1. At least one full year of academic work (30 units) remains to be completed to meet minimum graduation requirements.
2. At least 2/3 of the upper-division (300-400) units in the proposed course of study remain to be completed at the time the application is submitted for approval.
3. The GPA in the current major is 2.0 or better. A higher grade-point average may be required if the major department in the Interdisciplinary Studies program of study is impacted or requires a higher GPA for transfer students.
4. The GPA in the current major is 2.0 or better. A higher grade-point average may be required if the major department in the Interdisciplinary Studies program of study is impacted or requires a higher GPA for transfer students.

5. An Interdisciplinary Studies program must be justified by legitimate career, academic, and/or professional goals commensurate with the broader mission of the University in baccalaureate education. Interdisciplinary Studies majors are considered on a case-by-case basis. Approval is determined on the basis of the academic merit of the proposed course of study, the proposal rationale, the applicant's potential for successful completion of the program, the potential application of the resulting degree, and the ability of the University to support the proposed program. It is the student's responsibility to provide a clear written statement of the goals for his or her program of study, and the reasons these goals cannot be accomplished using an existing major, or combination of major and other available programs, and or concentrations of course work.

Procedures

1. To prepare for the initial interview:
 - A. Review the CSULB *Catalog* Interdisciplinary Studies Program requirements.
 - B. Meet with the ISP Director and discuss your reasons for deciding on an Interdisciplinary Studies Program major; including why a traditional major double major, major and a minor, or other conventional educational pathway will not suffice. Discuss with the ISP Director what Disciplines/Departments you are interested in combining, and explain how his combination will:
 - 1) Enhance goals and objectives during your college education;
 - 2) Impact your career goals and objectives;
 - 3) Provide you with an opportunity to obtain skills and knowledge not otherwise available at CSULB through conventional programs and degree options.
2. Meet with the Department's Undergraduate Advisor, or in the absence of a Department Undergraduate Advisor meet with the department chair from each prospective department to be included in the ISP special major. With the guidance of these individuals, create a tentative program of study, subject to the Director of ISP's approval.
3. Draft a program of study with the assistance of the department Undergraduate Advisors and/or chairs of the various departments you wish to combine. Arrange a meeting with the Department Undergraduate Advisor and the Department Chair of each of the departments you will be including in your program of study. With their guidance develop a list of courses (a program of study) that will constitute your special studies degree program. Once approved and signed by both the Department Undergraduate Advisors and Department Chairpersons, any subsequent change in this program of study will require the approval of the Department Undergraduate Advisors and the Director of ISP. Changes must be made using the official Program Addendum forms.
4. Draft a three-to-four page proposal essay outlining the program of study you have created. State what you foresee will be the length of time you will need to complete your degree. Explain why no existing degree will assist you in terms of achieving your intended goals or propelling your future career.

5. Return your program of study with all signatures to the Interdisciplinary Studies Director, along with your typed interdisciplinary studies proposal. Completed programs must be approved by the Interdisciplinary Studies Director and will be filed in the Interdisciplinary Studies Office and the Records Office. Be advised that pending final approval of your interdisciplinary studies program, you should proceed with the course work for your previously declared major or with General Education and elective courses. You should delay taking courses that will count only toward the fulfillment of your Interdisciplinary Studies Program until the semester following formal admission into the major. Thus, in the event you are not accepted into the Interdisciplinary Studies program, you will not have impeded your academic progress.

Requirements

1. An Interdisciplinary Studies Program consists of a maximum of four lower-division courses (100-200) and a minimum of 36 units of upper-division courses (300-400) totaling a minimum of 48 units in the program.
2. An Interdisciplinary Studies Program is based on a thematically cohesive core of classes involving significant work in two or more disciplines. A rationale must accompany the program and be signed by the faculty advisors when the program is submitted to the Interdisciplinary Studies Program Director for approval.
3. Interdisciplinary courses (1) taken to satisfy General Education requirements may be double-counted to meet Interdisciplinary Studies Program unit requirements, if the program consists of more than 48 units of credit.
4. The maximum amount of course work that may be taken in one department is 60% of the total course work designated for the program.
5. Students may need more than four lower division courses to prepare for the upper division courses in their major. However, no more than four of these lower division courses will be counted in the official program.
6. Students must maintain a 2.0 or better GPA in their program course work in order to remain in the major.
7. Each Program course and prerequisite course must be completed with a grade of 'C' or better.

Master of Arts (code IDSCMA01) and Master of Science (code IDSCMS01) in Interdisciplinary Studies

The Master of Arts or Master of Science degree in Interdisciplinary Studies permits students to earn an interdisciplinary master's degree when their special needs or interests cannot be met by any existing CSULB graduate degree program. The Interdisciplinary Studies master's degree is not a degree divided between or among disciplines, but is a cohesive program of study, which integrates the methodologies, perspectives, and content of two or more disciplines. A master's degree in Interdisciplinary Studies must be justified by legitimate academic goals.

Acceptance of an applicant to an Interdisciplinary Studies master's program is based on such considerations as the academic merit and rationale of the proposed course of study, the applicant's potential for successful completion of a master's program, the potential application of the degree towards the

applicant's career and educational goals, and the ability of the University to support the proposed study with faculty, curricula, and facilities. Candidates should carefully assess goals before proceeding with this degree. The degree program is administered by the Dean of Graduate Studies through the office of the Interdisciplinary Studies Director, Library East 125.

Prerequisites

1. A bachelor's degree from an accredited college or university
2. Submission of any standardized test scores (e.g., GRE, GMAT, etc.) or screening activities required by the identified major discipline, or primary department (Usually the department issuing the Master's).
3. An interdisciplinary master's program requires demonstration of potential for success in each of the disciplines relevant to the proposed degree work. The relevant Department Graduate Advisors, in consultation with the student will determine the appropriate prerequisite courses for each program; these are listed on the Prerequisite Sheet that accompanies the Application for a Master's Degree in Interdisciplinary Studies.
4. Students must meet the required GPA of their identified major discipline in the last 60 units of work completed at an accredited college or university and a 3.0 GPA in all prerequisite course work listed on the Prerequisite Sheet.
5. No more than 9 units of previously completed course work can be included in the program.
6. Students must maintain a 3.0 or better GPA in their program course work in order to remain in the major.

Acceptance to the Program

Those students who meet all program and University prerequisites for graduate study and whose Interdisciplinary Studies master's programs have been approved by the Interdisciplinary Studies Director will be admitted as Classified graduate students in the Interdisciplinary Studies program. Students who have not met all program and University prerequisites but who demonstrate potential for their successful completion will be encouraged to complete their materials and resubmit during the immediately following full semester.

Procedures

1. Check our Website: www.csulb.edu/programs/iisp to see if you might qualify for an Interdisciplinary Studies Program of study.
2. Make a formal application to the university for admission, and a separate application to the ISP Director.
3. Make an appointment for a preliminary interview with the Director of ISP in room 125 East Library. For this interview, prepare a written proposal three to four pages in length:
 - A. Identifying by title the interdisciplinary program of study in which you wish to engage (i.e., Interdisciplinary Studies Master's Degree in (30-space limit) and description;
 - B. Explaining why this course of study cannot be pursued within one department with electives from other departments;
 - C. Explaining how this program relates to your educational and career goals;
 - D. Indicating your background, both academic and experiential, for undertaking this study; and

E. After meeting with the Department Graduate Advisor from each of the relevant departments, develop a program of study of CSULB courses appropriate to your goals.

4. Make a second appointment to meet with the Interdisciplinary Studies Director. Bring your proposal for review and approval. If the proposal is found promising and University facilities can support the proposed program of study, the Interdisciplinary Studies Director will provide you with the forms and guidelines necessary to proceed with application to the program as outlined in item 5 below.
5. Complete the Student Program form for the Masters' Degree in Interdisciplinary Studies provided by the ISP Director, or downloaded from the web site. Have each of the Department Graduate Advisors from the relevant departments sign this form indicating their approval of your program of study. Submit the proposal, the Prerequisite Check Sheet for the Master's Degree in Interdisciplinary Studies, the Student Program for the Master's Degree in Interdisciplinary Studies, to the Interdisciplinary Studies Director. These materials constitute the Application for a Master's Degree in Interdisciplinary Studies. These materials are reviewed by the Interdisciplinary Studies Director whose signature on the Student Program for the Master's Degree in Interdisciplinary Studies signals acceptance of an applicant to the program. Subsequent modification of an approved Student Program requires approval of the relevant department graduate advisors, and the Interdisciplinary Studies Director, on an official Change of Program form to be obtained from the Interdisciplinary Studies Director.

Advancement to Candidacy

Advancement to candidacy is formally approved by the Assistant Vice President for Academic Affairs-Curriculum and Advising, of the Student Program for the Master's Degree in Interdisciplinary Studies. Graduate students are apprised of their advancement or failure to be advanced by the Dean of Graduate Studies. Any modifications to the Student Program after advancement to candidacy require the approval of the Interdisciplinary Studies Graduate Committee, the Interdisciplinary Studies Director, and the Dean of Graduate Studies on an official Addendum to Program form to be obtained from the Interdisciplinary Studies Director. Students must have advanced to candidacy at least one full semester prior to graduation, but should do so sooner.

In addition to university requirements, the student must have completed all program courses with no grade less than "C". Students must have passed the Writing Proficiency Examination (WPE) and should make an appointment with the Interdisciplinary Studies Director for Advancement upon completion of at least six units of 500 or 600 level courses.

The Interdisciplinary Studies Director will submit an Interdisciplinary Studies graduate student's program for advancement to candidacy when the following conditions apply:

1. Satisfactory completion of all prerequisite course work with a minimum 3.0 GPA (see item 3 in Prerequisites above) as well as any additional prerequisites (i.e., departmental qualifying exams);
2. Completion of a minimum of six units of graduate-level (500-600) program work with a 3.0 GPA;
3. Successful completion of the University Writing Proficiency Exam (WPE);

4. Approval by the Interdisciplinary Studies Director of the completed Application for Thesis and Committee Form for thesis option programs;
5. Resolution of all incomplete grades (I) on the record;
6. A cumulative 3.0 GPA in all completed program work;
7. Current enrollment in University course work.

Requirements for the Master of Arts Degree

1. A minimum of 60% of the units required for the degree shall be in the 500 and 600 level series. The number of units required for the degree shall be the number of units approved on the individual student's program (minimum 30 units).
 - A. No fewer than 18 units shall be at the 500-600 level. These must be completed in residence at CSULB. Extension 500-600 level courses are not acceptable on the Interdisciplinary Studies graduate program towards residency;
 - B. No more than 60% of total course work may be taken in any one department;
 - C. Where appropriate, a research methodology course taken in the area of focus must be included in the graduate Student Program;
 - D. No less than 15 units shall be completed within a primary department (The primary department is normally the degree-issuing department);
 - E. Up to six units of approved extension or transfer units may be used in fulfillment of the student's program of study. Nine units of extension credit may be used if all nine have been taken at CSULB. These limits may be increased further for degrees requiring more than 30 units that:
 - 1) at least 24 units have been taken in residence at CSULB; and
 - 2) no graduate student program may use extension or transfer credit to satisfy the requirement that at least 60% of the total units be taken at the 500 and 600 levels.
 - F. No more than three units of independent study in addition to Thesis on a minimum 30-unit program.
 - 1) Exceptions to this regulation are as follows:
 - a) Up to six units of independent study in addition to Thesis may be permitted in a minimum 30-unit program when the projected studies are not to be taken in the same department and when the focus of each projected independent study is clearly distinct from the other (as evidenced on the Independent Study Agreement); forms should be submitted with all other materials constituting the Application for a Master's Degree in Interdisciplinary Studies (see item 3, under Acceptance Procedures above), and when each independent study is justified by the student's graduate committee as programmatically essential;
 - b) In excess of six units of independent study in addition to Thesis may be permitted only in cases when an Interdisciplinary Studies graduate program exceeds the minimum 30 units; when the focus of each projected study is clearly distinct from any others; and when each study is justified by the student's graduate advisors as programmatically essential. Programs with more than six units of independent study will be referred to the Interdisciplinary Studies Advisory Board for final approval.

2. Successful completion of a Thesis or Comprehensive Exam. The selection of the Thesis or Comprehensive examination option will be made by the student, if such an option is available in the primary department identified in the Graduate Student Program of study. If no option is available, the student will comply with the culminating requirements of the major department.
3. Students electing to write a thesis must enroll for thesis credit in their major department (the primary department identified in their Graduate Student program of study);
4. Students opting to write a thesis must identify a thesis committee by the beginning of their second full semester of graduate study, complete a thesis proposal form, and submit it to the ISP director. The Thesis Committee must include a chair (from the primary department) and at least one representative faculty member from each of the disciplines included in the student's Graduate Program of Study. A thesis committee shall contain no fewer than three members, at least two of which must be tenure-track CSULB faculty. The chair of the committee must be a tenured, or tenure-track faculty member.
5. All requirements of the degree program must be completed within seven years of the date when the program was initiated (i.e., no course on the program at the time of graduation may be more than seven years old); Requirements for the Master of Science Degree The basic requirements and application procedures for the Master of Science in Interdisciplinary Studies shall be the same as the Master of Arts degree in Interdisciplinary Studies, however it is frequently a requirement in programs that issue a Masters of Science degree to require a thesis. Students will follow the exit requirements of their major department (their primary department).

Requirements for the Master of Science Degree

The basic requirements and application procedures for the Master of Science in Interdisciplinary Studies shall be the same as the Master of Arts degree in Interdisciplinary Studies, however, it is frequently a requirement in programs that issue a Masters of Science degree to require a thesis. Students will follow the exit requirements of their major department (their primary department).

INTERNATIONAL BUSINESS

College of Business Administration

Director

Paul L. Frantz

Phone

(562) 985-5072

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For core requirements please see the College of Business Administration section in this catalog.

Bachelor of Science in Business Administration

Option in International Business (code FIN_BS02) (124 units)

The objective of the international business option is to prepare students for the increasingly competitive and interdependent international business world with which they must cope. There is great and growing need for American business school graduates to be better informed about how to compete and do business outside the U. S. as well as in the U. S. market where much of their competition is from foreign firms. Students need to understand how international business practices and customs differ from those in the U. S. They need some familiarity with a language other than English as well as knowledge of culture and world geography.

Requirements

1. ACCT 465
2. FIN 490
3. MGMT 405 or 406
4. MKTG 480
5. Any one of the following four courses: FIN 424, HRM 458, MGMT 405 or 406 (whichever was not taken in satisfaction of requirement 3), or MKTG 481.
6. Two years in high school or one year (2 semesters or 3 quarters) at the baccalaureate level of one of the following languages: Chinese, French, German, Italian, Japanese, Russian, or Spanish. Under individual, special circumstances, the Director of the International Business Option may approve a language other than those listed above to satisfy the language requirement for a degree in the option.
7. Choice of the language will determine the country or geographic area of the world about which the student must study a minimum of 2 courses (6 units).

These will be in lieu of 6 other elective units, and can be double counted as part of the student's general education requirement, if approved to meet GE requirements.

G.E. or Elective Courses

Select two courses (6 units), appropriate for your choice of language:

All Languages: ANTH 412I, ECON 368, POSC 371, 485, I/ST 317I, 318I, 319I, 355, LING 413, 425, 470, COMM 330, 452, W/ST 401I.

Chinese: ANTH 332, A/ST 301I, 310, 495I, CHIN 370, 301, ECON 365, 370, HIST 382B, 406B, 488, POSC 362, R/ST 101B, 331I, 341I, 343, C/LT 403.

French: C/LT 330A,B, ECON 361I, GEOG 316, HIST 335, 339, POSC 353, FREN 335, 336 or courses taken at a specified French university with which CSULB has an exchange agreement and taught by instructors from CSULB may be approved by the Director of the International Business Program in partial or full satisfaction of this requirement.

German: C/LT 330A,B, ECON 361I, GEOG 316, HIST 335, 339, 437, POSC 353, GERM 309, 315, 316, 380I.

Italian: C/LT 330A,B, ECON 361I, GEOG 316, HIST 332, 335, 339, POSC 353.

Japanese: ANTH 335, A/ST 301I, 310, ECON 370, HIST 383B, 384, 406B, 407I, JAPN 350, 451, 471, R/ST 103, 341I, 344, C/LT 403.

Russian: ECON 361I, GEOG 318, GERM 410, HIST 341B, 441, POSC 356, RUSS 310, 410I.

Spanish: ANTH 323, 324, ECON 361I, 363, GEOG 320I, HIST 364, 433, 462, 463, POSC 358, 359, 459, SPAN 330, 341, 430, 445, C/LT 440.

Undergraduate Certificate in International Business (code FIN_CT01)

Phenomenal growth of multi-national companies has been apparent in recent years, with increasing internationalization of the business world. Multi-national firms, governmental agencies, and varied international organizations express heightened demand for management personnel with a broad, global perspective. The Certificate in International Business, Undergraduate Program, combines an undergraduate degree in business with additional training in the area of international business beyond that normally included in a traditional business program. The objective of the program is to enhance the scope and perception of the business student to include the international business environment. Courses used to meet requirements for the Certificate in International Business may also apply toward College of Business Administration degree requirements.

Requirements

1. A bachelor of Science degree in Business Administration.
This requirement may be completed concurrently with certificate requirements;
2. Six of the following nine courses: CBA 300; ACCT 465; FIN 424, 490; HRM 458; MGMT 405, 406; MKTG 480 or 481.
3. A grade of "C" or higher will be required in each course completed;
4. The Certificate Program does not permit use of the Credit/No Credit option. Students with specific geographic areas of interest should consider development of language competence and cultural understanding relative to their area of interest concurrent with their Certificate Program. For additional information or for application to the program, interested persons may contact the Director of International Business Program.

CENTER FOR INTERNATIONAL EDUCATION

University Academic Programs

Dean, Undergraduate Studies

Dorothy M. Goldish

Office

Academic Affairs

Director, International Programs

Paul Lewis

Assistant to the Director

Shirley Dellett

Associate Director, International Admissions

Donald Delgado

International Admissions Specialist

Merry Glumm

International Credential Specialist

Linda Loudon

International Data Entry Processor

Lynn Christopher

Associate Director, International Student Services

John Moutou

Immigration Specialist

Yvonne Correia

International Student Advisors

Joanna Itoh

Hillary Onyeche

Study Abroad

Cecilia Fidora

Daniel Yoder

Special Programs Coordinator

Linda Olson-Levy

Center Office

Brotman Hall (BH) 201

Telephone

(562) 985-4106

International Admissions

(562) 985-5476

FAX

(562) 985-1725

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Center for International Education is under the division of Academic Affairs. Its mission is to stimulate, develop and administer programs and services in the international area.

The program priorities of the Center for International Education are as follows:

to strengthen the internationalization of the curriculum, involving the participation of all the University's colleges. Interdisciplinary courses have been developed to further this goal. The infusion of existing courses with comparative approaches and non-western materials is being encouraged as well as the introduction of a number of issue-oriented international courses and several international studies emphases;

to render all services relating to the admission, counseling, academic life and success of international students attending CSULB;

to develop selective international educational linkages with institutions in other countries;

to assist CSULB students and faculty in participating in overseas opportunities;

International Admissions

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 Admissions 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. The International Admissions staff coordinates closely with the American Language Institute, International Student Services, Study Abroad Office, administrators, and faculty to support students in pursuing their educational objectives.

International Student Services

Some 1,600 non-immigrant students, representing almost 90 countries, attend CSULB. The primary mission of International Student Services, a component of the Center for International Education, is to assist these students with their academic, personal, and cultural growth and development during their years at CSULB. This mission is accomplished through professional counseling and advising; assistance with Immigration and Naturalization Service (INS) 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.

In addition, the ISS staff works with international students, faculty, and members of the community to encourage and support international programs. International students are encouraged to participate in University and community programs. During the academic year, ISS staff works with the

International Student Association, the International Peer Advisors, and the International Community Council of Long Beach to plan and organize cross-cultural events such as the Annual International Dinner and Culture Show, International Faire, and other major events. These groups add a special dimension to student life on campus by hosting various cultural events and providing leadership training opportunities for their members.

English Proficiency Requirements for Admission

Undergraduate Applicants

Each undergraduate applicant, regardless of citizenship, whose prior education was in a country where English was not the primary language of social, educational, and business interaction, must demonstrate English competency by receiving a minimum score of 500 on the Test of English as a Foreign Language (TOEFL), 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 56 transferable units from accredited U.S. community colleges and/or universities and a grade of "A", "B", or "C" in ENGL 100 or its equivalent*, or
3. successfully completed CSULB's American Language Institute's Intensive English Program.

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.

Graduate Applicants

Each applicant for graduate or post-baccalaureate studies, regardless of citizenship, whose prior education was in a country where English was not the primary language of social, educational, and business interaction, must demonstrate English competency by receiving a minimum score of 550 on the Test of English as a Foreign Language (TOEFL), 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 the American Language Institute's Bridge to the University Program.

EXCEPTION: Applicants applying for Public Policy and Administration, which requires a 600 TOEFL, 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.

International Student Admission Requirements

The CSU must assess the academic preparation of foreign students. For this purpose, "foreign students" include those who hold U.S. visas as students, exchange visitors, or in other nonimmigrant classifications.

The CSU uses separate requirements and application filing dates in the admission of foreign students. Verification of English proficiency (see the section on TOEFL Requirement for undergraduate applicants), financial resources, and academic performance are all important considerations for admission. Academic records from foreign institutions must be on file at least [insert campus deadline for document submission] for the first term and, if not in English, must be accompanied by certified English translations.

Priority in admission is given to residents of California. There is little likelihood of nonresident applicants, including international students, being admitted either to impacted majors or to those majors or programs with limited openings.

CSULB encourages eligible international students to apply for undergraduate and graduate level studies. International students are defined as those who hold non-immigrant (student or exchange) visas. Application requests and questions should be directed to International Admissions, which is located in the Center for International Education (BH 201).

International students need to complete a different application process than U.S. students, and there are different application deadlines. 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 (usually met by the Test of English as a Foreign Language);
6. Official academic documents and certified English translations;
7. ACT or SAT (required for student athletes and graduates of U.S. high schools);
8. GMAT (required for graduate business majors only);
9. Letters of recommendation (graduate level applicants).

Application deadlines vary. Applicants should check with the International Admissions office for deadline dates. Graduate applicants must check with their department for earlier deadlines.

Once all the documents are submitted to the International Admissions Office, eligibility for admission will be determined based on English proficiency and academic history, as well

as other considerations. Graduate applications will be forwarded to the graduate departments for review by the graduate coordinators. 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 Immigration and Naturalization Service (INS) requires that international students be aware of and follow INS 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 University College and Extension Services at CSULB or courses taken concurrently at other colleges nearby may only count toward full time status when approved in advance of course registration by the Center for International Education. Questions about INS policies may be directed to the Center for International Education.

Graduate students for whom English is a second language may be required upon arrival to take the Examination in English as a Second Language (EESL) and enroll in any necessary class(es) in English as a second language. Please check with International Admissions for more information on EESL requirements and exemptions. In some cases this may mean that students will be required to take reduced course loads in their major field until English proficiency can be demonstrated. This requirement cannot be postponed.

Study Abroad Office

The Study Abroad Office is located in the Center for International Education. Its mission is to assist CSULB students and faculty select and prepare for an educational experience in another country. This office administers exchange programs throughout the world, provides advising services, maintains an overseas opportunities resource library, and sponsors special programs such as pre-departure workshops, information seminars, and speakers from off-campus.

CSU International Programs (IP) System-wide

Developing intercultural communication skills and international understanding among its students is a vital mission of The California State University (CSU). 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 15,000 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 70 recognized universities and institutions of higher education in 18 countries, the International Programs also offers a wide selection of study locales and learning environments.

The affiliated institutions are:

Australia Griffith University
 University of Western Sydney
 Macquarie University
 Queensland University of Technology
 University of Queensland
 Victoria University of Technology
 Canada The universities of the Province of Quebec including:
 Université de Montréal

..... Concordia University
 Université Laval
 McGill University
 Université du Québec System
 Bishop's University
 Chile Pontificia Universidad Católica de Chile (Santiago)
 China Peking University (Beijing)
 Denmark Denmark's International Study Program
 (the international education affiliate of the University of Copenhagen)
 France Institut des Etudes Françaises pour Étudiants Étrangers
 L Academie d'Aix-Marseille: (Aix-en Provence)
 Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII
 the Institute of Oriental Languages and Civilizations,
 Universit Evry
 Germany Heidelberg and Universität Tübingen
 and a number of institutions of higher education
 in the federal state of Baden-Württemberg
 Israel Tel Aviv University
 The Hebrew University of Jerusalem
 University of Haifa
 Italy CSU Study Center (Florence)
 Università degli Studi di Firenze
 La Accademia di Belle Arti Firenze
 Japan Waseda University (Tokyo)
 Korea Yonsei University (Seoul)
 Mexico Instituto Tecnológico y de Estudios
 Superiores de Monterrey, Campus Querétaro
 New Zealand Lincoln University (Christchurch)
 Massey University (Palmerston North)
 Spain Universidad Complutense de Madrid
 Universidad de Granada
 Sweden Uppsala Universitet
 Taiwan National Taiwan University (Taipei)
 National Tsing Hua University
 United Kingdom Bradford University
 Bristol University
 Hull University
 Kingston University
 Sheffield University
 University of Wales, Swansea
 Zimbabwe University of Zimbabwe (Harare)

Information on academic course offerings available at these locations is in the International Programs Catalog which may be obtained from the Study Abroad Office in the Center for International Education (BH 201) or by writing to The California State University International Programs, 401 Golden Shore, Long Beach, CA 90802-4210 (562) 951-4790.

International Programs pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Participants remain eligible to receive any form of financial aid (except work-study) for which they can individually qualify.

To qualify for admission to the International Programs, students must have upper division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may, however, participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community colleges. Students must also possess a current cumulative GPA of 2.75 or 3.00, depending on the program for which they apply, for all college level work com-

pleted at the time of application, and have completed required language or other preparatory study where applicable. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection is made by the Office of International Programs in consultation with a statewide selection committee.

Additional information and application materials may be obtained from the CSULB Center for International Education by calling (562) 985-4106 or by writing to The California State University International Programs, 401 Golden Shore, Sixth Floor, Long Beach, California 90802-4210. Visit us on the World Wide Web at: www.gateway.calstate.edu/csuienet/.

Applications for the 2002-2003 academic year overseas must be submitted by February 1, 2002 (May 1 for Australia and New Zealand).

CSULB Exchange Programs

In addition to the CSU International Programs, CSULB has developed exchange programs with outstanding universities in many parts of the world through cooperative linkage agreements. These agreements allow CSULB students to study for a semester or an academic year in a foreign institution while remaining enrolled at CSULB. A wide range of major fields of study may be accommodated in this program. So far, agreements have been signed with institutions in the following countries:

Argentina	University of Belgrano
Australia	University of Wollongong
.....	Deakin University
Austria	University of Salzburg
Chile	Universidad del Desarrollo
Cambodia	University of Phnom Penh
China	Qingdao University
.....	China Criminal Police College
.....	Liaonig University
France	MICEFA (Consortium of Universities in Paris)
.....	Sup de Co de Montpellier
Germany	Fachhochschule Wiesbaden
.....	Hamburg Fachhochschule
.....	Otto-von-Guericke University, Magdeburg
.....	University of Bielefeld
.....	University of Oldenburg
.....	University of Essen
Japan	Osaka Gakuin
.....	Goto College of Medical Arts
.....	Waseda College of Medical Arts and Sciences
.....	Yokkaichi University
Korea	Yonsei University
Mexico	Universidad Autonoma de Guadalajara
Netherlands	Hes Amsterdam School of Business
.....	Hogeschool Haarlem Business School
Philippines	University of Santo Tomas
Switzerland	University of Fribourg
.....	University of Lausanne
.....	University of Neuchatel
Taiwan	Tamkang University
.....	Tunghai University
Turkey	Marmara University
U.K./England	The Nottingham-Trent University
U.K./Wales	Cardiff Institute of Higher Education
Vietnam	Vietnam National University
West Bank	Birzeit University

For more information and eligibility qualifications, please see the staff in the Study Abroad Office or call them in the Center for International Education at (562) 985-8429.

Courses (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. Course content is planned in cooperation with CSULB faculty.

English Proficiency Requirements

For students who need English language training prior to enrolling at CSULB, the American Language Institute provides professional instruction in all four language skills: reading, writing, listening and speaking. Conditional admission to CSULB is available for qualified students. PLEASE NOTE: International students are subject to the same EPT/ELM and WPE requirements as are all CSULB students.

Courses (ALI)

American Language Institute (ALI) courses are for non-native speakers of English. ALI courses are recommended for international students (students on F1 visas). ALP courses are recommended for all other non-native speakers of English.

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 in this course. Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates. A basic course in writing, offering intensive practice in every stage of the 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 II (3)

Prerequisite: Non-native speakers who score between 138 through 150 on the English Placement Test, between 501 through 550 on the Exam in English as a Second Language, or successful completion of ALI/ALP 145 with a grade of "C" or better. Counts toward elective credit for undergraduates. Does not count toward graduation but does count toward course load credit for graduates. Includes critical/analytical reading and expository writing with emphasis on longer essays. Analysis and practice of standard rhetorical modes of essay development.

INTERNATIONAL STUDIES

College of Liberal Arts

Acting Director

Charles Noble

Program Office

Social Sciences and Public Affairs (SPA) 257

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Program Secretary

Nancy St. Martin

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Website

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Faculty

Professors

Xiaolan Bao (History)

Jutta Birmele (German)

Norma Chinchilla (Sociology)

Kenneth R. Curtis (History)

Clorinda Donato (French and Italian)

Larry N. George (Political Science)

Lisa Grobar (Economics)

Elaine Haglund (Educational Psychology)

Jack Hou (Economics)

Arnold Kaminsky (Asian and Asian-American Studies)

Claire Martin (Spanish)

Yoko S. Pusavat (Asian and Asian-American Studies) (Emeritus 2002)

Harold K. Schefski (Russian)

Donald Schwartz (EDSS)

Christian Soe (Political Science) (Emeritus 2001)

Joel Splansky (Geography) (Emeritus 2002)

Barry H. Steiner (Political Science)

Associate Professors

James Curtis (Geography)

Larry Martinez (Political Science)

George M. Scott (Anthropology)

Teresa Wright (Political Science)

Assistant Professor

Houri Berberian (History)

James G. Ellison (Anthropology)

Richard Haesly (Political Science)

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Bachelor of Arts in International Studies (code I/STBA01) (120 units)

The Bachelor of Arts in International Studies is an interdisciplinary degree program designed to provide a rigorous introduction to the complex interrelationships that exist among societies in the modern world. It combines the study of international relations, global and development issues and contemporary belief systems with a concentration on a major

world area. In addition, the degree aims to equip students with the skills in language, analytical thinking, research, and economic literacy that are necessary for graduate study and careers in international fields. Further, students in the International Studies program receive direct exposure to an international environment by participating in a foreign study program or an internationally related internship in this country. Because it is interdisciplinary, this program emphasizes the ways in which the expertise and methodologies of various disciplines contribute to the understanding and resolution of international issues.

The program provides a broad understanding of international issues and world cultures through exposure to the various methodologies of the social sciences and liberal arts. It offers pre-professional study for careers in government, communications, business, law, journalism, and international non-profit organizations. Students are encouraged to combine a major in International Studies with a second major or minor in a field appropriate to their career plans.

All International Studies majors are required to develop a program of study in consultation with the program advisor. This program should be balanced among the participating disciplines in order to help the student develop a coherent emphasis in a world region and/or a topical area. Majors should choose their foreign language, foreign study or internship experience, and senior seminar research project to reflect this emphasis. The program director also advises about post-graduate study.

Requirements

A minimum of 45 units in a program approved by the International Studies advisor.

Requirements not included in major

Economic Literacy: (Units not included in total for major; may be fulfilled as part of General Education): ECON 100, 101; or, with prior permission of the International Studies Advisor, ECON 300.

Foreign Language: Three years of college level study or equivalent proficiency in a language appropriate to the program of study and geographic area concentration selected.

Major Requirements

Lower Division: (12 units): ANTH 120; HIST 212; GEOG 100 or 160; POSC 215 or 220.

Upper Division: A minimum of 33 units including:

Cross-Cultural Communication: 3 units, chosen from: ANTH 412I, 413; COMM 350.

Basics of International Relations: Select 6 units from the following: ECON 370, 372; GEOG 470; HIST/I/ST 478; POSC 371, 378, 485.

Development Studies: 6 units, selected from: ANTH/GEOG 307I; ECON 465; GEOG 460; H/SC 420I; JOUR 312I; POSC 461I; I/ST 317I, 318I, 319I, 355; SOC 350; W/ST 401I.

Contemporary Belief Systems: 3 units selected from: ANTH 305I; ECON 313; POSC 306; R/ST 383I; SOC 356.

Area Concentration

Choose 9 units from one of the following six areas:

Asia: A/ST 300I, 301I, 310, 495I; ANTH 332, 333, 335; GEOG 314I; HIST 382B, 383B, 384, 385, 386, 407I, 488; POSC 362, 363, 366.

Latin America: ANTH 323, 324; GEOG 320I; HIST 364, 462, 463, 466; CHLS 310; POSC 358, 359, 481.

Africa: B/ST 337, 380, 430, 460; GEOG 308I; HIST 391, 392.

North Africa and the Middle East: GEOG 309I; HIST 431; POSC 367; R/ST 331I, 315I.

Eastern Europe/Former Soviet Union: GEOG 318; HIST 341B; POSC 356, 357.

Western Europe: ECON 361I; FREN 440; GEOG 316; GERM 316, 380I, 410; HIST 337, 339, 357, 437; POSC 353; SPAN 430.

Internship or Foreign Study: (I/ST 492, 3 units) An internship or foreign study program related to the course of study selected, as approved by major advisor.

Senior Research Seminar: (I/ST 490, 3 units) As approved by the director of the International Studies program.

Minor in International Studies (code I/STUM01)

The Minor in International Studies consists of a minimum of 21 units at least 15 of which must be upper division courses, together with at least two years of college level of study (or equivalent proficiency) in a language (other than English) to the student's program of study in International Studies. No course in the department of a student's major may be used in satisfaction of the unit requirements for this minor except for ECON 100, 101, 300.

Requirements

Economic Literacy: Three units selected from ECON 100, 101 or, with the consent of the International Studies advisor, upper division students may take ECON 300. (Units earned in satisfaction of this requirement may not be counted as part of the unit requirement in the minor.)

Lower Division: Six units selected from ANTH 120, HIST 212, GEOG 100 or 160, POSC 215 or 220.

Upper Division: Three units selected from the courses grouped under Cross Cultural Communication or from the courses grouped under Contemporary Belief Systems as those groups are defined for the Bachelor of Arts degree in International Studies.

Either six units selected from the courses grouped under Development Studies or six units selected from the courses grouped under Basics of International Relations as those groups are defined for the Bachelor of Arts degree in International Studies.

Six units selected from one of the geographic Area Concentrations defined for the Bachelor of Arts degree in 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.

317I. Problems in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing. An interdisciplinary, social-scientific analysis of the causes, human costs, and possible remedies of social conflict in the world today. Topics may include ethnocentrism, nationalism, globalization, trade and aid, economic development, poverty and inequality, the environment, war and civil unrest, and ideological, ethnic, gender, and religious conflict. Special attention to the spread of democracy, the emergence of global social movements, and new forms of civil society and social solidarity. Letter grade only (A-F). Same course as SOC 317.

318I. Cases in International Social Conflict (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, and upper division standing. An interdisciplinary, social-scientific analysis of the causes, human costs, and possible remedies of social conflict in the world today. Case studies will consider factors such as globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest. Special attention to human rights,

democratization, global citizenship, and environmental sustainability. Letter grade only (A-F). Same course as SOC 318.

319I. International Development (3)

Prerequisites: Completion of the G.E. Foundation, one Explorations course, upper-division standing. Explores the nature of social, political, and economic development, as well as alternative developmental models. Assesses theories of development, including modernization, diffusion, dependency, and world systems. Compares and contrasts the historical and contemporary experiences of Europe, the U.S., and other "developed" areas of the world with the economic, social, and political challenges facing the governments and peoples of Asia, Africa, Latin America, and other "developing" regions. Same course as GEOG 319.

355. International Environmental Issues (3)

Prerequisites: Completion of the GE Foundation, one Explorations course, and upper division standing. 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.

451. International Women's Movements (3)

Prerequisite: Consent of instructor. This course provides discussion of global women's movements and the issues they address. Issues include women and violence, war and militarism, economic and political inequalities, environment and development, labor issues, international tourism, global sex work and trafficking of women (Thailand). Case studies include Gabriela (Philippines) and Global Alliance Against Trafficking of Women (Thailand). The seminar format course will examine movements and issues through the reading of recent literature, and the writing of short essays based on readings. Requirements include in-class preparations, a course portfolio of short essays, and a term paper.

478. Foreign Relations of the U.S. (3)

The course 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.

490. Senior Research Seminar in International Studies (3)

Prerequisites: Senior status; consent of the International Studies advisor and instructor. Capstone research seminar primarily for senior-year International Studies majors. Classroom preparation for directed research by students on a topic of their choice integrating international economics, international politics, cross-cultural communication, development studies, contemporary belief systems, language skills, and a geographic area. Letter grade only (A-F).

491. Non-Violent Conflict Resolution: In Your Life and On the Job and Around the Planet (3)

Designed to help the student examine conflict and violence, their own and others' responses to different situations, and to learn to utilize a set of tools to deal with conflict in a productive, non-violent manner. Same course as S W 491.

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. Internship with private organizations and governmental agencies with an international focus, international companies located in the US or abroad. A Study Abroad program with CSULB or other reputable university also meets this requirement. Work done under the joint supervision of the program sponsor and CSULB International Studies faculty. A final report is required.

493. Special Topics (1-6)

Prerequisite: Consent of instructor. Analysis of contemporary issues and problems in International Studies. Topics to be announced in the *Schedule of Classes*. Both grading options.

499. Directed Studies (1-3)

Prerequisite: Consent of instructor. Individually directed studies of special problems in International Studies. May be repeated for a maximum of six units with consent of program director. May not be credited toward the major in International Studies without written department consent in advance of enrollment. Supervised. course. Letter grade only (A-F).

JOURNALISM

College of Liberal Arts

Department Chair

William Babcock

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Whitney Mandel

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Assistant Professors

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Mathew Cabot

Jennifer Fleming

Raul Reis

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The Department of Journalism offers undergraduate curricula in journalism and public relations. Journalism courses include study in broadcast, photo and print journalism areas. Public relations courses include study in ethics, writing, communication techniques and theory, issues management, and strategic planning. These programs are intended to educate for beginning competency and continued individual professional growth and achievement.

Each program in the department is offered in a context of a broad liberal education that emphasizes liberal arts and sciences. These traditional areas remain the solid basis of professional education in journalism and mass communication here and elsewhere.

The Department of Journalism is an institutional member of the Association of Schools of Journalism and Mass Communication.

Courses in the department prepare students to be newspaper or magazine writers, reporters and editors; internet, radio or television reporters and editors; and public relations practitioners in corporate, agency and public sectors of the economy.

In cooperation with the Department of English, the department offers course work leading to the single-subject teaching credential in English-journalism for prospective high school teachers.

Students should contact the Department of Journalism office for referral to an appropriate faculty adviser for development of a study plan.

Of the 120 semester hours required for graduation, students are expected to take a minimum of 80 semester hours outside the major area of journalism and mass communications and, of these, at least 65 semester hours in the traditional liberal arts and sciences. Students should limit their journalism and mass communication course work to a maximum of 40 semester hours to comply with university requirements and national standards for journalism and mass communication education.

The Department of Journalism houses the student newspaper, the *Daily Forty-Niner*, which serves a campus community of more than 30,000 students and the university faculty and staff. Journalism students also help write, edit and produce the full-color *University Magazine*, the *On-Line Forty-Niner*, a daily electronic newspaper, *University Magazine Online* and the *Summer Forty-Niner*, a weekly newspaper.

Broadcast journalism students work at KLON-FM 88, which produces daily news heard throughout southern Los Angeles County and northern Orange County. Students also work with Advanced Media Productions to produce a weekly cable television program.

Advanced students are strongly encouraged to participate in the Department of Journalism internship program. Within the limits of its resources, the department helps graduating seniors and alumni find professional positions.

Requirements for the Bachelor of Arts in Journalism

Students may obtain a bachelor's degree emphasizing journalism or public relations.

Prerequisites to Entering Journalism Classes

Computer skills: All students entering journalism production classes must know be familiar with at least one established word-processing program, and be able to word-process at a rate of at least 40 words a minute.

Writing Skills

JOUR 120 is the basic writing and reporting course for journalism, and is a prerequisite to most courses in the department. Students must pass English 100 with at least a "C" before entering JOUR 120. Students who took an ENGL 100-equivalent course at another campus must pass the university's English Placement Test (EPT) to enter JOUR 120 or courses for which it is a prerequisite.

Course Prerequisites

Journalism majors must have passed both the WPE and passed JOUR 120 with at least a "C" to enter any course for which JOUR 120 is listed as a prerequisite. Students emphasizing broadcast journalism, print journalism and public relations must take ENGL 320, English Grammar.

Grade Requirements

Journalism majors must have a "C" average in the major. Journalism students must achieve a grade of "C" or better in each required course for the major.

Residency Requirements

Transfer students must complete at least 50 percent of their upper-division journalism units at CSULB. Journalism (Comm-

nication) courses transferable from other campuses are limited. No more than 12 (usually nine or fewer) units of community college communication units may be transferred to CSULB as journalism courses. (Included in the 12 units will be any professional communication courses, whether listed as journalism or under any other category.) Journalism courses taken on another campus may not be substituted for a CSULB journalism course without the approval of the CSULB Department of Journalism.

Transfer students should bring complete transcripts of all units taken at other colleges or universities to their first meeting with a Department of Journalism adviser. Students must provide the department with a separate copy because transcripts that have been sent to the university admissions offices are not available to the department.

Distribution of Units

Journalism majors must take a minimum of 80 semester hours in courses that are not professional journalism, technical communication or communication career or skills courses. Besides all journalism courses, this exclusion extends to all Film and Electronic Arts (FEA) courses as well as, for example, courses in graphic design or photography offered by the Department of Art.

The requirement that 65 of these 80 units must be in areas of traditional liberal arts and sciences should not be confused with the university's general education requirement. While many general education courses are acceptable for the 65-unit departmental requirement, not all general education units can be accepted for it by the Department of Journalism.

Courses that may be counted in the 65 units include all courses offered through the College of Liberal Arts except for technical writing courses. All courses offered by the College of Natural Science and Mathematics also may be counted. While performance courses such as drawing or painting must be excluded, courses involving art history or art appreciation may be included. To avoid the potential loss of units, students are advised to consult a journalism adviser before entering the department and before enrolling each subsequent semester.

After 65 units in liberal arts and sciences, and 40 units in journalism, 15 units remain to complete the 120 units required for graduation. Although it generally is recommended that these units be devoted to more liberal arts and science study, up to all 15 of these units may be taken in areas such as business, engineering, industrial arts, physical education, and recreation.

Journalism majors may not include more than 40 journalism/communication courses in the 120 units required for graduation, and most of these 40 units are required in the respective options of student emphasis. To avoid disappointment, majors are strongly advised to consult a journalism faculty adviser in order to plan and maintain a course of study.

Mandatory Advising

All students must meet with a journalism adviser before declaring the major, and entering students should make arrangements for advising before the start of their first CSULB semester. Students must minor in or have an area of concentration of at least 15 units of study outside of journalism or communication.

Bachelor of Arts in Journalism

Requirements

Please note requirements differ for each option.

Option in Broadcast Journalism (code JOURBA01) (120 units)

A minimum of 33 units and a maximum of 40 Journalism units including those specified below. Students must minor in or have an area of concentration of at least 15 units of study outside of journalism or communication.

All option majors must take ENGL 320 preferably before taking upper division journalism. A foreign language also is recommended.

Students must have a minimum of 80 non-communication units with at least 65 of the 80 in the traditional liberal arts and sciences areas. No more than 15 units can be in areas outside the liberal arts and sciences and communication categories.

Lower Division: JOUR 110, 120, COMM 171.

Upper Division: ENGL 320, JOUR 316 or 319A, 321, 325, 382, 482, and 430, and one of the following: JOUR 312I, 315, 412, 420, 431, 490, 494, 498, 499.

Option in Journalism Education (code JOURBA04) (120 units)

A minimum of 24 journalism units of which 15 must be upper division, selected in consultation with an advisor.

Lower Division: JOUR 110 and 120

Upper Division: JOUR 319A, 319B, 320, 331 and 430.

Recommended additional courses: JOUR 280, 312I, 370, 422, 431, 490, and 499.

To qualify for a credential that will authorize the teaching of journalism in California Public schools, a student must complete the journalism requirements specified above and core English courses.

Option in Print Journalism (code JOURBA02) (120 units)

A minimum of 30 journalism and a maximum of 40 communication units of which at least 24 must be upper division. Students must minor in or have an area of concentration of at least 15 units of study outside of journalism or communication. The department requires Print Option majors take ENGL 320, English Grammar, prior to taking JOUR 331, Publication Editing and Makeup. A foreign language is also recommended for majors in the option. Students must have a minimum of 80 non-communication units with at least 65 of the 80 units in the traditional Liberal Arts and Science areas. No more than 15 units can be in areas that do not fall into the Liberal Arts and Science or Communication categories.

Lower Division: JOUR 110, 120.

Upper Division: ENGL 320, JOUR 316, 319A, 319B, 320, 331, 420, 430, and JOUR 305 or 480, and at least one of the following JOUR 312I, 315, 412, 422, 431, 490, 498, or 499.

Recommended additional courses are: JOUR 380, 494.

Option in Public Relations (code JOURBA03) (120 units)

A minimum of 30 journalism and a maximum of 40 journalism/communication units of which at least 24 must be upper division units. Students must minor in or have an area of concentration of at least 15 units of study outside of journalism or communication. Students must take one research methods class before they graduate. A research course other than JOUR 494 requires the consent of the option advisor. It is strongly recommended that students in this option take as many English writing courses as possible; and transfer in or take at least a year of foreign language; and take advantage of the ethnicity classes offered at CSULB. Students must have a minimum of 80 non-communication units with at least 65 of the 80 units in the traditional Liberal Arts and Science areas. No more than 15 units can be in areas that do not fall into the Liberal Arts and Science or Journalism/Communication categories. The Public Relations option requires JOUR 498, Internship.

Lower Division: JOUR 110, 120.

Upper Division: ENGL 320, JOUR 370, 374, 375, 376, 430, 471, 478, 494 or a department approved research methods course, and 498.

Minor in Journalism (code JOURUM01)

A minimum of 21 units including:

Choose one area of concentration:

Broadcast: JOUR 110, 120, 319A, 321, 325, 430, and 431.

Print: JOUR 110, 120, 316, 319A, 331, and six units from JOUR 305, 312I, 320, 319B, 412, 422, 430, or 431.

Public Relations: JOUR 110, 120, 370, 374, 375, 376, and 471 or 478.

Courses (JOUR)

Lower Division

110. Introduction to Mass Communications (3)

Prerequisites/Corequisites: One GE Foundation Course. Origins, development and contemporary role of newspapers, magazines, radio, television, books, and films, and such related fields as advertising and public relations. (Lec, discussion 3 hrs.) (CAN JOUR 4)

120. News Writing (3)

Prerequisites: Ability to word process 40 wpm. A "C" or better in ENGL 100. Course focuses on news writing, newspaper style, writing leads, developing the story, and importance of deadlines. It includes study of news sources, reporting and interviewing methods, law, ethics and responsibilities of the reporter. Practical exercises in reporting and writing news and features for publication (CAN JOUR2)

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. Intermediate Photojournalism (3)

Prerequisites: JOUR 120 with a grade of "C" or better, ART 141 or consent of instructor. Techniques of photojournalism for newspapers, magazines, corporate communications and Public Relations. Student work is regularly critiqued and published in departmental publications. 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. Hands on projects give

students an opportunity to develop skills. \$30.00 materials fee for those using university supplies. (Lectures, demonstrations and practical assignments). Letter grade only (A-F).

305. Editorial Graphics (3)

Designed to give students experience in the design of printed materials. Examines theories, principles, and techniques of contemporary page design, especially of newspapers and Sunday magazines. Covers the historical roots of publication design and acquaints students with the use of photographs, illustrations, graphs, type and color in visual communication. Students gain hands-on experience with Macintosh computers and produce prototype-newspaper and magazine pages. Letter grade only (A-F).

312I. Global News Media (3)

Prerequisites: Completion of the GE Foundation, one or more Explorations courses, and upper-division standing. An analysis of the world's news media with an emphasis on their structure, ownership, social and political roles, and the degree of government pressure and control. Particular attention is paid to economic, political and mass media globalization, and its effects on developing countries.

315. Journalism as Literature (3)

Prerequisites: Completion of the G.E. Foundation, one or more Explorations courses, and upper-division standing. Set criteria for defining journalism and literature. Examines great journalistic work of the last 2,000 years, from Plato and Julius Caesar to Addison, Steele and Swift, through Twain, Stephen Crane, Mencken and Camus, to E. B. White, Updike, Didion and Tom Wolfe which have earned a place in literature.

316. Feature Writing (3)

Prerequisite: JOUR 120 with a grade of "C" or better or consent of instructor. Feature Writing covers the feature article for both newspapers and magazines. Discusses style, organization, human interest, use of quotes, leads and article ideas. Emphasis is on clear readable prose. Publishable articles are submitted to the Daily Forty-Niner or University Magazine. Letter grade only (A-F).

319A. News Reporting (3)

Course focuses on news reporting and writing, including study of different types of stories. Students work as staff writers on Daily Forty-Niner or University Magazine. Course may not be taken concurrently with JOUR 319B or JOUR 422. Letter grade only (A-F).

319B. Advanced Publication Writing and Reporting (3)

Course focuses on news reporting and writing, including study of different types of stories. Students work as staff writers on Daily Forty-Niner or University Magazine. Course may not be taken concurrently with JOUR 319A or JOUR 422. (Activity/Laboratory 9 hours.) Letter grade only (A-F).

320. Reporting Public Affairs (3)

Prerequisite: JOUR 120 or consent of instructor. News coverage of police, courts and city, county, state and Federal government. Study and practice in methods of investigative reporting. (Reporting and writing practice 3 hours.)

321. TV News Writing (3)

Prerequisites: JOUR 120 with a grade of "C" or better or consent of instructor. Techniques for information gathering, scripting, selecting video and choosing sound bites for news and feature stories. Emphasis is on television news writing.

324A,B. Photography for Publication (3,3)

Prerequisites: JOUR 120 and 300 (with a grade of "B" or better), or consent of instructor. Students with qualifying photo skills will comprise staff of the *Daily Forty-Niner* newspaper and *University Magazine*. Staffers will be responsible for photographic coverage of campus news and feature events for daily and special edition use. Photographers will practice techniques of newspaper photography through assigned stories as well as personally developed enterprise stories. Individual approach and skills are assessed daily, with staff efforts analyzed at weekly photo conference. Students must provide own camera. Course fee required. (Laboratory 6 hours)

325. Radio News Writing and Reporting (3)

Prerequisites: JOUR120 with a grade of "C" or better or consent of instructor. Techniques for information gathering, scripting, and selecting actualities for news and feature stories. Emphasis is on radio news writing.

331. Publication Editing and Makeup (3)

Prerequisites: ENGL 320 and JOUR 319A with a grade of "C" or better or with consent of instructor. JOUR 319B and 331 cannot be taken concurrently except by permission of instructor. Study of methods in newspaper and magazine production and practice in preparing copy for periodical publication, including editing, proof-reading, headline writing, using photographs and other display materials, handling news service copy, legal problems, and page design. Letter grade only (A-F). (Lecture, 2 hrs, activity with the Daily Forty-Niner or University Magazine, 3 hrs.)

370. Principles of Public Relations (3)

Prerequisite: ENGL 100 with a grade of "C" or better. Public relations fundamentals: research, planning, communication, and evaluation. Study of targeting special publics, the use of public relations tools, developing public relations programs, and the importance of social responsibility.

374. Internal Communication for Public Relations (3)

Prerequisites: JOUR 120 and 370. Students learn to write a wide variety of internal public relations materials, including backgrounders, position papers, proposals, letters, memos, speeches, and crisis communication plans. Students develop a crisis communication plan for a nonprofit organization as a service-learning project.

375. External Communication for Public Relations (3)

Prerequisites: JOUR 120 and 370. Students are exposed to the various techniques used in media relations and learn to write news releases, feature stories, media alerts, pitch letters, biographies, op-ed pieces, captions, and public service announcements. Students develop a comprehensive press kit for a nonprofit organization as a service-learning project.

376. Publications for Public Relations (3)

Prerequisites: JOUR 120 and 370. Students learn the theories and principles of layout and design and the most effective writing techniques for an array of publications. Students develop newsletters, brochures, corporate identification systems, advertisements, fliers, and online materials. All publications are created electronically, using various desktop-publishing programs. Students develop a brochure and newsletter for a nonprofit organization as service-learning projects. Letter grade only (A-F).

380. Advanced Photojournalism (3)

Prerequisite: JOUR 300 or consent of instructor. Photographic reporting with a camera. In-depth study of photojournalism with emphasis on creation of photo story ideas, photo essays and feature photos: photo editing and layout as applied to newspapers and magazines. Course fee required for those using university supplies.

382. Radio News Production (3)

Prerequisites: JOUR 325 with a grade of "C" or better or consent of instructor. Reporting, writing and editing news and feature stories for radio news program. Special emphasis is on radio production techniques. (Lab 6 hrs.)

412. Theories of Mass Communication (3)

Prerequisites: JOUR 110 or consent of instructor. Contemporary theories of mass communication. An overview of the development of communication theory as it relates to the mass media. Evaluation of theories of the communication process through analysis of the original research upon which the theories were founded. Source, message and audience effects of the communication process.

420. Investigative Reporting (3)

Prerequisite: JOUR 120 and 320 or consent of instructor. Advanced course in investigative and interpretive reporting. Students will work in an editor-reporter relationship with instructor in researching and writing in-depth pieces on such complex issues as mass transit, air pollution, city government, poverty, crime, housing and drug abuse. Computer-assisted research and investigative and interviewing techniques will be stressed. Letter grade only (A-F).

422. Senior Media Production (3)

Prerequisite: Consent of instructor. Advanced work on Journalism Department publications as editors, writers, photographers, designers, or news broadcasters. Required course for *Daily Forty-Niner* and *University Magazine* editors. A student may not take course concurrently with JOUR 319A or JOUR319B. Letter grade

only (A-F). May be repeated for a maximum of 9 units with consent of instructor.

430. Law of Mass Communications (3)

Principles and case studies of the law of the press, radio and television with emphasis on constitutional guarantees, prior restraints, libel, contempt, privacy, taxation, licensing, shield laws, free press vs. fair trial, and other laws affecting the news media.

431. Ethical Problems of the News Media (3)

Prerequisites: JOUR 120 with a grade of "C" or better or consent of instructor. The study of ethical codes and value systems used in writing, producing and presenting news in the United States. Philosophical foundations of moral theory and various approaches to ethical decision making for journalists and other media practitioners.

471. Agency Public Relations (3)

Prerequisites: JOUR 120, 370, and two of the following: JOUR 374, 375, and 376. This course is designed to acquaint students with the operation of a public relations agency. Students will work with others in an agency situation to develop a business proposal for an actual client involving a formal written plan and oral presentation. Students also serve as a public relations consultant and develop a public relations program for a nonprofit organization as a service-learning project. All assignments are designed to expand the student's skills in public relations problem-solving and critical thinking.

478. Public Relations Case Studies (3)

Prerequisites: JOUR 120, 370, and two of the following: JOUR 374, 375, and 376. Case studies are used to acquaint students with the types of problems they will encounter when working in the profit and nonprofit sectors. Strong emphasis is placed on analytic planning, critical thinking, and programmatic skills. Students will develop a research study examining a public relations issue in-depth.

480. Picture Editing (3)

Prerequisites: JOUR 120 and 331. Principles of picture selection for newspaper and magazine publication. Emphasis on preparing material — written and visual — for use as single picture or layout presentation. Course fee required.

482. Television News Production (3)

Prerequisites: JOUR321 or consent of instructor. Scripting, voicing, shooting and editing news and feature stories for cablecast student program. Special emphasis on videography and editing. (Lab 6 hrs.)

490. Special Topics in Mass Communications (1-3)

Topics of special interest in mass communications selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated for a total of 6 units.

494. Research Methods in Mass Communications (3)

Prerequisite: Consent of instructor. Basic techniques of research in mass communication and mass media. Overview of theory building and hypothesis testing procedures as applicable to current problems in the mass communication field. Scientific methods, survey and experimental design, field studies, analysis of data.

498. Internship (3)

Prerequisites: For seniors only, by faculty recommendation, with consent of department chair. Work of an editorial or writing nature at least one full day a week with cooperating organization in the Los Angeles-Orange County area. Work at a TV, radio, or production facility. Work edited and evaluated by supervisors of the participating public relations and media firms. Regular reports to faculty supervisor and regular scheduled meetings with supervisor on-campus to discuss progress and problems. Students should submit internship package, available from Department Office, then gain approvals above. Credit/No Credit grading only.

499. Special Projects (1-3)

Prerequisite: Open to journalism major only. Advance approval of instructor; (permit required to enroll). Research in the field of journalism in broadcast, newspaper, magazine, public relations, advertising or other related fields. Students must meet once a week with instructor. May be repeated for a maximum of 6 units with different topics.

KINESIOLOGY AND PHYSICAL EDUCATION

College of Health and Human Services

Department Chair
Michael G. Lacourse

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Health and Human Services (HHS) 2, Room 105

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Professors

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James A. Davis
Janet M. Fisher
John J. Garhammer
John F. Gonsalves (Emeritus, 2003)
Dixie A. Grimmett (Emeritus, 2000)
Sharon R. Guthrie
Karen L. Hakim-Butt
Michael G. Lacourse
Barry W. Lavay
Clayre K. Petray
Ralph Rozenek
William A. Sinclair (Emeritus, 2002)
Dale P. Toohey (Emeritus, 2001)
David J. Wurzer (Emeritus, 2001)
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Jan M. Schroeder
Alison M. Wrynn

Department Secretary
Dee Sundry

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students may contact the Department Office for information and referral to the appropriate Faculty Advisor, Undergraduate Coordinator, Graduate Coordinator, or Credential Coordinator.

The Department of Kinesiology and Physical Education's mission is accomplished by providing excellence in instruction, scholarship and service through a multidisciplinary approach that will foster the development and maintenance of behavior that is essential for a healthy lifestyle in ever changing demographics. The Department's programs offer a course of study for students wishing to prepare for professional careers or related disciplines in physical education teaching (Adapted, Elementary, and Secondary), athletic training, fitness-wellness, exercise science, kinesiotherapy, sport psychology and coaching. The programs have been developed from physiological, psychological, biomechanical, and sociological principles. The Department also serves the needs of students completing majors in other fields who find that certain aspects of Kinesiology and Physical Education are important to their professional objectives and personal interests. In meeting the educational needs of these students, the Degrees, Certificates, and Minor available in the Department of Kinesiology and Physical Education include:

- Bachelor of Arts in Kinesiology in four options.
- Bachelor of Science in Kinesiology in four options.
- Master of Arts in Kinesiology in seven options.
- Master of Science in Kinesiology in three options.
- California Single Subject Clear Credential Programs in Physical Education (K-12)
- Adapted Physical Education Specialist Credential (K-12)
- Minor in Physical Education: Single Subject Credential Add-on
- Community Physical Fitness Certificate
- Wilderness Studies Certificate
- Kinesiotherapy Certificate

The Department of Kinesiology and Physical Education, in addition to its Degrees, Certificates, and Minor, assumes the responsibility for the psychological, physiological, and sociological needs and interest of the college student through general education, interdisciplinary, and physical activity course offerings. Students enrolling in physical education activity courses assume responsibility for satisfactory health status appropriate to the class activity.

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 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. Current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent);
4. Department approval.
5. Bachelor degree Majors must also have Department clearance of lower division courses/activities and skill proficiencies.

Bachelor of Arts in Kinesiology

Students pursuing a Bachelor of Arts degree in Kinesiology must complete lower division and upper division core courses and skill proficiency requirements plus courses in a specific area (Option). Students may select their area of specialization from one of the four Options described below. In meeting the requirements of this degree, the Department offers four specialized Options for study which permit students to develop a conceptual understanding related to human movement and to focus on preparation for one or more specific occupations. The student must demonstrate 1) physical skill proficiency, 2) knowledge of physical fitness, and 3) knowledge in the personal performance activity courses completed according to the lower division core requirements for specific Options prior to graduation. A minimum of 120 units are required for graduation.

Physical Skill Proficiency

Each Bachelor of Arts Major is required to demonstrate physical skill proficiency at a 3.5 (1-5 scale) overall average level in fitness (KPE 263 or 343) and the personal performance activity courses required in each Option prior to graduation. Physical skill proficiency examinations are administered in the appropriate personal performance activity courses. Only physical skill proficiency scores in the range of a 2.0-5.0 are recorded and computed to determine a student's physical skill proficiency average.

Option in Athletic Training (code KPE_BA01) (120 units)

This Option is designed for students interested in careers in the prevention/care of athletic injuries and the administration of athletic training programs in public and private schools, colleges, universities, and with professional teams. Students interested in pursuing certification by the National Athletic Trainers Association, Inc. must complete additional requirements which are available from the Department Office.

Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filing period is greater than the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Athletic Training is an impact-

ed program and has the following supplementary admission criteria:

- Freshman applicants to the Bachelor of Arts in Kinesiology Option in Athletic Training will be placed in the pre-major code.
- Transfer applicants must apply to the University during the initial filing period of October and November for the following Fall semester. They must indicate their choice of major on the application.
- Continuing students and transfer applicants seeking admission to the upper-division major in Athletic Training must submit a supplemental application to the department by February 1 for the Fall semester or by October 1 for the Spring semester. The supplemental application must be accompanied by 3 letters of recommendation, one of which must be from the athletic training observation or participation site noted below.
- Applicants to the upper division major must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:
 1. Completion of a minimum of 56 semester units of degree credit, including all lower division General Education requirements, with a minimum cumulative GPA of 2.75.
 2. Completion of the following prerequisite courses with a grade of "C" or better: BIOL 207 and 208; and PSY 100.
 3. Completion of the following prerequisite course with a minimum grade of "B": KPE 207 (Prevention and Care of Athletic Injuries).
 4. Completion of a minimum of 150 hours of observation or student athletic trainer participation in a traditional athletic training setting (interscholastic or intercollegiate) under the supervision of a NATABOC certified athletic trainer.

Requirements

Lower Division: BIOL 207, 208; PSY 100; KPE 215, 263, and eight physical activity units distributed over a minimum of four activity categories:

Aquatics: KPE 125A, 125B, 237, 238;

Combative: KPE 106A, 149A;

Dance: KPE 185, 260;

Individual/Dual Sports: KPE 100A, 112A, 112B, 171A, 264, 265, 266, 267;

Wilderness Studies: KPE 242, 244, 246A;

Team Sports: KPE 250, 253, 255, 257.

Upper Division: KPE 300, 301, 307, 308, 309, 310, 312, 315, 332I, 335, 363, 407; H SC 427; EDP 434B; Select one course from FCS 430 or H SC 210.

Option in Adapted Physical Education (code KPE_BA02) (120 units)

This Option is designed for the preparation of students seeking a California Single Subject Clear Credential in Physical Education (K-12) with a specialist credential in adapted physical education. The emphasis is placed upon teaching public school physical education to students with disabilities in preschool through grade 12. The academic and professional course work is designed to provide students with philosophical, theoretical and applied concepts of teaching adapted physical education.

Lower Division: BIOL 207, 208; PSY 100; KPE 149A, 171A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 270; Select one course from 237, 238.

Upper Division: KPE 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 387, 388, 427, 460.

A fieldwork, field experience or internship course requires current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent) prior to enrollment.

Option in Elementary School Physical Education (code KPE_BA03) (120 units)

This Option is designed for the preparation of students seeking a California Single Subject Clear Credential in Physical Education (K-12). The emphasis is placed upon teaching public school physical education to students in grades K through 6. The academic and professional course work is designed to provide students with philosophical, theoretical and applied concepts of teaching elementary school physical education.

Lower Division: BIOL 207, 208; PSY 100; KPE 149A, 171A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 270; Select one course from 237, 238.

Upper Division: KPE 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 460, 477, 483, FCS 430.

A fieldwork, field experience or internship course requires current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent) prior to enrollment.

Option in Secondary School Physical Education (code KPE_BA04) (120 units)

This Option is designed for the preparation of students seeking a California Single Subject Clear Credential in Physical Education (K-12). The emphasis is placed upon teaching public school physical education to students in grades 6 through 12. The academic and professional course work is designed to provide students with philosophical, theoretical and applied concepts of teaching secondary school physical education.

Lower Division: BIOL 207, 208; PSY 100; KPE 149A, 171A, 250, 253, 255, 257, 261, 264, 265, 266, 267, 270; Select one course from 237, 238.

Upper Division: KPE 300, 301, 312, 315, 320, 332I, 335, 343, 370, 380, 457, 460, 461, 483.

A fieldwork, field experience or internship course requires current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent) prior to enrollment.

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 described below. These Options develop a student who has an integrated conceptual understanding of the discipline and its relationship to

human movement. Each Option focuses on foundation preparation for a specific occupation or graduate work. A minimum of 132 units is required for graduation.

Physical Fitness Proficiency

Each Bachelor of Science Major is required to demonstrate a physical fitness proficiency at the minimum level of a 3.0 before graduation. The physical fitness proficiency examination is administered in KPE 263 Techniques of Fitness.

Option in Exercise Science (code KPE_BS01) (132 units)

This Option is designed primarily for those students interested in careers in exercise physiology, biomechanics, or motor control/learning as well as those students contemplating graduate work in these areas or one of the health professions, e.g., physical therapy.

Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filing period is greater than the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Exercise Science is an impacted program and has the following supplementary admission criteria:

- Freshman applicants to the Bachelor of Science in Kinesiology Option in Exercise Science will be placed in the pre-major code.
- Transfer applicants must apply to the University during the initial filing period of October and November for the following fall semester. They must indicate their choice of major on the application.
- Continuing students and transfer applicants seeking admission to the upper-division major in Exercise Science must submit a supplemental application to the department by February 1 for the fall semester or by October 1 for the spring semester.
- Applicants to the upper-division major must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:
 1. Completion of a minimum of 56 semester units of degree credit, including all lower-division General Education requirements, with a minimum cumulative GPA of 2.75.
 2. Completion of the following prerequisite courses, each with a grade of "C" or better: BIOL 207 and 208; CHEM 111A; ENGL 100; MATH 112; PHYS 100A; and PSY 100.
 3. Show proof of current First Aid (Community) certification or CPR (Community) certification.
 4. Submit two letters of recommendation. A minimum of one letter must be from a natural sciences faculty member who can comment on your academic capabilities in the sciences.

Requirements

Core Courses: BIOL 207, 208; KPE 300, 301, 312.

Lower Division: CHEM 111A, 111B; KPE 263; PHYS 100A, 100B, PSY 100.

Upper Division: KPE 405, 441, KPE 430 or 431; KPE 483 or BIOL 260; Select three courses from KPE 339I, 462, 465, 466.

Elective Courses: select 18 units (minimum 6 units from KPE) from the following courses: BIOL 200, 211A, 211B, 340, 341, 342 and 342L, 345, 401, 441, 442, 443, 445, 446; CHEM 327, 448; FCS 132, 331A, 331B; HHS 374, 401, 460, 471; H SC 150; KPE 315, 320, 363, 339I*, 430*, 431*, 462*, 465*, 466*, 471, 494, 495, 497.

* If not taken as one of the major required upper division courses.

A fieldwork, field experience or internship course requires current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent) prior to enrollment.

Option in Kinesiotherapy (code KPE_BS03) (132 units)

This Option is designed primarily for those students interested in careers which provide therapeutic physical activities in rehabilitation settings including clinics, hospitals, schools, universities, convalescent homes and other private and public institutions. Students interested in certification by the American Kinesiotherapy Association must complete additional requirements. Please consult the Department Coordinator and the Kinesiotherapy Certificate Program for additional information.

Supplementary Criteria for Admission

In the California State University, an undergraduate major is designated as impacted when the number of applications received the first month of the filing period is greater than the available spaces. Such degree majors are authorized to use a pre-major code and supplementary admission criteria to screen applicants. The Option in Kinesiotherapy is an impacted program and has the following supplementary admission criteria:

- Freshman applicants to the Bachelor of Science in Kinesiology, Option in Kinesiotherapy will be placed in the pre-major code.
- Transfer applicants must apply to the University during the initial filing period of October and November for the following Fall semester. They must indicate their choice of major on the application.
- Continuing students and transfer applicants seeking admission to the upper-division major in Kinesiotherapy must submit a supplemental application to the department by February 1 for the fall semester or by October 1 for the spring semester. The supplemental application must be accompanied by 3 letters of recommendation, one of which must be from the therapeutic or rehabilitation setting noted below.
- Applicants to the upper division major must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:
 1. Completion of a minimum of 56 semester units of degree credit, including all lower division General Education requirements, with a minimum cumulative GPA of 3.0.
 2. Completion of the following prerequisite courses with a grade of "C" or better: BIOL 207 and 208; and PSY 100.
 3. Completion of PSY 200 with a grade of "B" or better.
 4. Completion of a minimum of 100 hours of observation or active participation in a therapeutic or rehabilitation setting.

Requirements

Core Courses: BIOL 207, 208; KPE 300, 301, 312.

Lower Division: PSY 100, 200; KPE 210, 263, and eight physical activity units distributed over a minimum of four activity categories:

Aquatics: KPE 125A, 125B, 237, 238;

Combative: KPE 106A, 149A;

Dance: KPE 185, 260;

Individual/Dual Sports: KPE 100A, 112A, 112B, 171A, 264, 265, 266, 267;

Wilderness Studies: KPE 242, 244, 246A;

Team Sports: KPE 250, 253, 255, 257.

Upper Division: GERN 400I or BIOL 401; HHS 374; KPE 309, 315, 320, 332I or 335, 427, 489F; PSY 341, 370.

A fieldwork, field experience or internship course requires current certification in First Aid (ARC-Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC-Community, Professional Rescuer; AHA-Level B, Level C, or equivalent) prior to enrollment.

Option in Sport Psychology and Coaching (code KPE_BS04) (132 units)

The Option in Sport Psychology and Coaching has two Concentrations - one in Sport Psychology and one in Coaching. The course work for both concentrations is the same except for 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., coaching professional athletes, coaching college athletes, coaching youth-sport athletes, and coaching in sport academies. A minimum of 132 units are required for graduation.

Core Courses: BIOL 207, 208; KPE 300, 301, 312.

Lower Division: FCS 132; KPE 263; PSY 100, 110, 200; and eight physical activity units to be distributed over a minimum of two activity categories:

Aquatics: KPE 125A, 125B, 237, 238;

Combatives: KPE 148A;

Individual/Dual Sports: KPE 171A, 264, 265, 266, 267;

Team Sports: KPE 250, 253, 255, 257.

Upper Division: KPE 315, 332I, 335, 339I, 472, 475; PSY 333, 356.

Elective Courses for the Concentration in Sport Psychology: Select 15 units (minimum 6 units from KPE) from the following courses: HHS 374; H SC 427; KPE 495, 489B, 471, 497; PSY 141, 332, 370, 373, 475.

Elective Courses for the Concentration in Coaching: Select 15 units (minimum 6 units from KPE) from the following courses: ACCT 310; COMM 411; HRM 360; H SC 427; IS 240; KPE 489B, 497, 499; MKTG 300, 330; REC 321, 322, 324, 427.

A fieldwork, field experience, or internship requires current certification First Aid (ARC Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC Community, Professional Rescuer, AHA Level B, Level C or equivalent) prior to enrollment.

Option in Fitness (code KPE_BS02) (132 units)

This Option is designed for students interested in careers in the fitness industry, e.g. fitness director, manager, program specialist, coordinators, personal trainer, or group instructors in corporate, commercial, YMCA, or other public/private facility.

Core Courses: BIOL 207, 208; KPE 300, 301, 312.

Lower Division: FCS 132; PSY 100; KPE 215, 263, and eight physical activity units distributed over a minimum of two activity categories:

Aquatics: KPE 125A, 125B, 237, 238;

Combatives: KPE106A, 148A, 149A;

Dance: KPE 185, 260;

Fitness: KPE 142, 151A, 152A, 198A;

Individual/Dual Sports: KPE 100A, 100B, 112A, 112B, 171A, 264, 265, 266, 267;

Wilderness Studies: KPE 242, 244, 246A, 247A;

Team Sports: KPE 250, 253, 255, 257.

Upper Division: HSC 435; KPE 332I or 335, 339I, 363, 364, 367, 368, 405, 467, 469, 483, 489D.

Elective Courses: Select twelve units from the following courses: FCS 433, 439; HSC 421, 423, 429; KPE 307, 309, 315, 332I*, 335*, 462, 465, 495, REC 421, 423, 425, 427.

* If not taken as one of the major required upper division courses.

A fieldwork, field experience, or internship requires current certification First Aid (ARC Standard, Community, EMT or equivalent) and Cardiopulmonary Resuscitation (ARC Community, Professional Rescuer, AHA Level B, Level C or equivalent) prior to enrollment.

Adapted Physical Education Specialist Credential (code 490)

This program is designed for students interested in the administration and implementation of physical activity programs for persons with disabilities. Completion of this credential authorizes the California Adapted Physical Education Specialist Teaching Credential.

Requirements

1. Bachelor's degree with a teaching major in Kinesiology;
2. Must be obtained concurrently or after completion of the Single Subject Physical Education Teaching Credential, K-12;
3. KPE 320, 387, 388, 427, 526, 546; ED P 350; Select two courses from CD 280; ED P 405, 526, 546, 564, 579B.

Minor in Physical Education Teaching (code KPE_UM01)

The minor in Physical Education Teaching is available to any non-Kinesiology major. This minor is designed for those students who are striving for an additional credential. With completion of this minor, the University will recommend the additional credential in Physical Education.

Requirements

A minimum of 34 units as follows: BIOL 207 and KPE 301 or BIOL 208 and KPE 300; KPE 315, 343, 370, 380, 460, 483; EDSS 300P; Eight physical activity units including: KPE 237 or

238; 265; 250 or 257; 253 or 255; 171A or 264; 266 or 267; 270.

In addition to the above, each student is required to demonstrate skill proficiency at an average 3.5 level on a 5 point scale in KPE 343 and the 8 physical activity units completed to satisfy requirements for this minor. Only physical skill proficiency scores in the range of 2.0-5.0 are recorded and computed to determine a student's physical skill proficiency average.

Concentration in Physical Education Elementary Teaching Requirements

A minimum of 21 units as follows: KPE 301, 312, 315, 370, 427, 476, 477.

Concentration in Physical Education Coaching Requirements

A minimum of 20 units as follows: KPE 301, 307, 332I; a minimum of 11 units selected in consultation with appropriate KPE Advisor from the following: KPE 312, 363, 475, 489B.

Certificate Programs

The Department of Kinesiology and Physical Education offers four different certificate programs each of which is related to a special emphasis provided in the curriculum. All certificate programs 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.

Community Physical Fitness Certificate (code KPE_CT01)

During the 2003-04 academic year, no new students will be admitted to this program.

Specific emphasis in this program is directed to the knowledge, understanding and application of principles designed to prepare the student for personal training in physical fitness and management of fitness-wellness facilities. Such facilities include corporate fitness, commercial health clubs, personal training centers, hospitals, senior centers, retirement facilities and with other public/private fitness, sport and wellness programs.

Requirements

1. Current certification in cardiopulmonary resuscitation and first aid;
2. Course work (35 units as follows): BIOL 207, 208; KPE 300, 301, 363, 489D or H SC 485.

Select five additional courses from the Area's listed below in consultation with the Certificate Advising Coordinator. Of the five courses selected, a minimum of three courses must be from one Area.

Area I: ED P 191, 434B; FCS 132 or 430, 331A, 331B, 336, 433, 436, 436L, 439, 461; H SC 210, 401, 421, 435/535; KPE 309, 339, 405, 441/541, 462/562, 465/565; REC 321, 421, 425, 427.

Area II: ACCT 201; C/ST 200, 210; HRM 361, H SC 403; IS 240; MGMT 421; MKTG 300, 330; PSY 381.

Area III: BIOL 260, 342, 342L, 441, 443/543, 446/546.

Wilderness Studies Certificate (code KPE_CT02)

This program is designed to develop leaders who can provide safe and challenging situations for individuals seeking self-fulfilling experiences in wilderness environments. The program of study will enable the student to acquire appropriate knowledge and skills, and to develop a personal philosophy reflecting understanding and concern for the protection of the environment and safety of participants in wilderness activities.

Requirements

1. Certification in First Aid and Cardiopulmonary Resuscitation;
2. Completion of Log of Outdoor Experiences;
3. Course work (31-33 units as follows): BIOL 100, KPE 346, 448, REC 490 with advisement. The following coursework must be taken in consultation with the advising coordinator: select four courses from KPE 131, 153, 242, 244, 247A; select two courses from KPE 243A, 243C, 245, REC 430; select one course from KPE 141, 446, 497, 499; select one course from FCS 132, REC 407, 431, 433.

Pre-Athletic Training Certificate (code KPE_CT03)

During the 2003-04 academic year, no new students will be admitted to this program.

This program is designed to assist the student in acquiring a foundation of knowledge and skills necessary for providing prevention and care of athletic injuries, and the administration of athletic training programs in public and private schools, colleges, universities and professional sport teams. Individuals who wish to pursue certification by the National Athletic Trainers' Association must complete additional requirements. Information concerning specific requirements for admission to the NATA program may be obtained from the Department of Kinesiology and Physical Education.

Requirements

1. Certification in cardiopulmonary resuscitation and first aid;
2. Course work: (31 units as follows):
KPE 300, 301, 307, 308, 309, 363, 483, 489C; FCS 430.

Kinesiotherapy Certificate (code KPE_CT04)

This program is designed to prepare the student to pass the American Kinesiotherapy Association (AKTA) Certification Test. AKTA certification will qualify the therapist to provide therapeutic physical activities in rehabilitation settings including clinics, hospitals, schools, universities, convalescent homes and other private and public institutions or in private practice. The student will complete the Kinesiotherapy Option in the undergraduate curriculum plus 27 additional units. Information concerning the certificate can be obtained from the Director of the Kinesiotherapy Program in the Department of Kinesiology and Physical Education.

Students seeking National Kinesiotherapy Certification need to complete the Undergraduate Option in Kinesiotherapy, the Undergraduate Kinesiotherapy Certificate, plus 12 post-baccalaureate Internship units with consensus of the Kinesiotherapy Advisor.

Requirements

1. Admission application and approval by Director;
2. Completion of the degree requirements of the Bachelor of Science: Option Kinesiotherapy;

3. Specialization course work requires a "B" or better grade for AKTA Certification;
4. Course work: BIOL 401 or GERN 400I; H SC 210 or 411A or 411B or 427; KPE 210, 309, 320, 405 or 499, 427, 438/538, 488/588, 485, 489F; PSY 341.

Graduate Program

Two degree programs are available to the student: Master of Arts degree in Kinesiology with seven Options and Master of Science degree in Kinesiology with three Options. The student may select the thesis/project track or the comprehensive examination track. The student who chooses the thesis/project track is required to complete a thesis or a project. The student who chooses the comprehensive examination track is required to take KPE 695. The minimum unit requirement for the MA degree major program is 30 units for thesis/project students and 36 units for comprehensive examination students. The minimum unit requirement for the MS degree major program is 33 units for thesis/project students and 39 units for comprehensive examination students.

Admission Criteria

1. A bachelor's degree from an accredited institution with a major in Kinesiology/Physical Education; or
2. A bachelor's degree in another field with a minimum of 15 units of upper division courses in Kinesiology composed of prerequisite courses needed for the tentative degree plan to be determined by the student's major advisor and approved by the Department Graduate Coordinator. All deficiencies must be removed prior to Advancement to Candidacy.
3. An overall undergraduate GPA of 2.50 or better and an upper division Kinesiology/ Physical Education major GPA of 2.75 or better;
4. A minimum cumulative score of 450 on the verbal, 450 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. Successful completion of the CSULB Writing Proficiency Examination. Information about the exam is available in the Testing Office (BH-216);
3. A graduate program must have approval of the student's advisor, Department Graduate Coordinator, and Associate Dean of Graduate Students, Research, and Faculty Affairs for the College of Health and Human Services.

Master of Arts in Kinesiology

Seven Options are under the Master of Arts degree in Kinesiology and are described below. The core courses for thesis students are KPE 590, 696, and 698. The core courses for comprehensive examination students are KPE 590, 695, and 696.

Option in Adapted Physical Education (code KPE_MA04)

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. KPE 590 and 696;
2. Minimum of 12 units selected from the following: KPE 537, 538, 546, 638, and 697;
3. KPE 698 (4 units) for thesis/project students plus a minimum of 8 elective units;
4. KPE 695 for comprehensive exam students plus a minimum of 15 elective units.

Option in Coaching (code KPE_MA07)

This Option provides an in-depth study in the scientific, mechanical, emotional, and methodological realms of coaching.

Requirements

1. KPE 590 and 696;
2. Minimum of 12 units selected from the following: KPE 524, 540, 551, 560, 562, 575, 630, and 633;
3. KPE 593 (3-6 units) required after advancement to candidacy;
4. KPE 698 (4 units) for thesis/project students, plus a minimum of 2-5 elective units;
5. KPE 695 for comprehensive examination students, plus a minimum of 12-15 elective units.

Option in Motor Behavior (code KPE_MA06)

This Option is designed to provide advanced preparation in human movement from a behavioral perspective; this includes the examination of motor learning, control and development across the lifespan.

Requirements

1. KPE 590 and 696;
2. Minimum of 12 units selected from the following: KPE 540, 546, 630, 633, and 697 (3 units);
3. KPE 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
4. KPE 695 for comprehensive examination students, plus a minimum of 15 elective units.

Option in Pedagogical Studies (code KPE_MA02)

This Option provides preparation in student design, instructional development, and evaluation to improve the supervision of skills and develop expertise in behavioral research methods.

Requirements

1. KPE 524, 525, 526, 590, 696, and 697;
2. KPE 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
3. KPE 695 for comprehensive examination students, plus a minimum of 15 elective units.

Option in Sports Studies (code KPE_MA05)

This Option examines sport from the perspective of sociology, anthropology, history, psychology, and philosophy.

Requirements

1. KPE 590 and 696;
2. Minimum of 12 units from the following: KPE 573, 574, 577, 633, and 697 (3 units);

3. KPE 698 (4 units) for thesis/project students, plus a minimum of 8 elective units;
4. KPE 695 for comprehensive examination students, plus a minimum of 15 elective units.

Option in Sports Management (code KPE_MA03)

This Option provides preparation for management (administrative) career opportunities in physical education, athletics, or commercial settings.

Requirements

1. KPE 521, 590, 592A (6 units) or 592B, 685, and 696;
2. Department electives. Thesis/project students select 3 units and comprehensive examination students select 6 units from the following: KPE 573, 574, 577, 633;
3. Nondepartment electives. Thesis students select 9 units with advisor's approval and comprehensive examination students select 12 units with advisor's approval from the following: EDAD 541, 544, and 647; ACCT 500; FIN 500; HRM 500; MKTG 500;
4. KPE 698 (4 units) for thesis/project students;
5. KPE 695 for comprehensive examination students.

Option in Individualized, Program, and Generalized Areas (code KPE_MA08)

These Options are designed to provide the student with curriculum activities that combine one or more option areas into a program of study. These Options are developed by the student with the advisement of a graduate faculty member and/or the Graduate Advisor. A statement of rationale for the proposal must accompany the program of study.

Requirements

1. KPE 590 and 696;
2. Minimum of 15 units from 500 and/or 600 level coursework in KPE;
3. KPE 698 (4 units) for thesis project students, plus a minimum of 5 elective units (individualized);
4. KPE 695 for comprehensive examination students, plus a minimum of 12 elective units (generalized and program areas only).

Master of Science in Kinesiology

Three Options are under the Master of Science degree in Kinesiology and are described below. The core courses for thesis/project students are KPE 580, 590, 696, and 698. The core courses for comprehensive examination students are KPE 580, 590, 695, and 696.

Option in Exercise Science (code KPE_MS01)

This Option is designed to provide up-to-date theoretical principles and practical experiences in exercise physiology and biomechanics.

Requirements

1. KPE 540, 550, 551, 552, 580, 590, 696, and either 594 or 697;
2. Select two of the following four courses or select 6 other units with advisor's approval: KPE 541, 562, 565, and 566;
3. KPE 698 (4 units) for thesis project students;
4. KPE 695 for comprehensive examination students, plus a minimum of 6 elective units.

Option in Sport and Exercise Psychology (code KPE_MS02)

This Option is designed to prepare students for careers in sport and exercise psychology, in particular as athletic performance enhancements specialists and/or as researchers and teachers in academic settings.

Requirements

1. KPE 572, 575, 580, 590, 633, 696 (18 units)
2. Two of the following courses: KPE 571, 573 or 574, 577, 630, 697 (6 units)
3. KPE 698 (4 units) for thesis students, plus a minimum of 5 units from PSY/Ed PSY and/or additional KPE electives with advisor approval.
4. KPE 695 (3 units) for comprehensive examination students, plus 12 units from PSY/Ed PSY courses and/or additional electives in KPE with advisor approval.

Option in Sports Medicine and Injury Studies (code KPE_MS03)

This Option is designed to provide the student with an in-depth study in the many health-related problems related to individuals who are physically active.

Requirements

1. KPE 540, 551, 560, 561, 562, 580, 590, 633, 696, and 697;
2. KPE 698 (4 units) for thesis/project students;
3. KPE 695 for comprehensive examination students, plus a minimum of 6 elective units.

Kinesiology and Physical Education Courses (KPE)

Activity Courses

100-198. Physical Education Activity (1)

A broad range of physical education activities is offered. These are designed to provide an opportunity for students to meet their health, physical and recreational needs and interests. Maximum of 8 units may be applied toward the University graduation requirement. Students enrolling in physical education courses assume the responsibility for satisfactory health status appropriate for class activity. KPE activity courses may be offered at the beginning (I), intermediate (II), and advanced (III) levels. All classes are co-educational, any student may enroll in the activity courses offered by the Department of Kinesiology and Physical Education. Classes offered within areas are as follows:

Individual/Dual Activities (1)

- 100A. Archery. Course fee may be required.
- 102A. Badminton
- 104A. Bowling. Course fee may be required.
- 108A. Golf
- 112A,B. Racketball
- 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,B. Swimming
- 126A. Swimming Conditioning
- 133A. Windsurfing. Course fee may be required.

Fitness Activities (1)

- 142. Low Impact Aerobics
- 146A. Jogging
- 151A. Weight Training and Conditioning

Team Activities (1)

- 161A. Basketball
- 162A. Beach Volleyball
- 165A. Flag Football
- 166. Rugby
- 167A. Soccer
- 169A. Softball
- 171A. Track and Field
- 172A,B,C. Volleyball

Recreational Dance

- 183A. Recreational Dance Workshop
- 185. Social Dance

Special Studies (1-3)

- 198. Special Activities
 - A. Aqua Aerobics
 - B. Triathlon Fitness
 - E. Individual Adapted Activities

* See Physical Education professional courses for additional activities open to non-majors.

Kinesiology and Physical Education Professional Courses (KPE)

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)

A course designed to introduce the student to the activities, equipment, and techniques used in the development of conditioning programs tailored to one's individual needs. Course may be repeated to a maximum of 8 units.

156. Sports Appreciation (3)

Prerequisite: One of the GE Foundation courses (may be taken concurrently). Introduction to the study of sport as a social institution in American society. Letter grade only (A-F) for Kinesiology majors/minors.

157. Fitness for Living (3)

Prerequisite: One of the GE Foundation courses (may be taken concurrently). Analysis and implementation of the concepts related to exercise for health and fitness. Letter grade only (A-F) for Kinesiology majors/minors. (Lecture 2 hours, Activity 2 hours.)

159. Aerobic Teacher Training (2)

Prerequisite: KPE 142 or equivalent. Instruction in organizing and teaching methodology of aerobic fitness concepts including movement principles, and exposure to a variety of activities applicable to aerobic teacher training. (Lecture 1 hour, 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. This course is useful for lifelong fitness, socialization, and recreation. Course may be repeated to a maximum of 8 units.

207. Prevention and Care of Athletic Injuries (3)

Prerequisites: KPE 210 or equivalent. Principles and techniques of the prevention and care of common athletic injuries. (Lecture 2 hours, Activity 2 hours).

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.

215. Career Perspectives in Human Movement (1)

An overview of human movement including professional preparation and employment opportunities. Orientation to current programs and proficiency requirements. Students entering the Kinesiology major are required to enroll in this course their first semester of study.

237. Techniques and Analysis of Aquatic Skills (2)

Prerequisites: Open to Kinesiology majors and minors only, American Red Cross Community First Aid and Safety or equivalent. 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)

238. Water Safety Instructor (2)

Prerequisites: Open to Kinesiology majors and minors only, KPE 237 or equivalent or instructor permission, American Red Cross Community First Aid and Safety or equivalent. Comprehensive analysis of principles of movement, organizational strategies utilized in presenting aquatic activities and advanced swimming skills in physical education classes. Includes an opportunity to qualify for the American Red Cross Water Safety Instructor certification. Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)

239. Lifeguard Training (2)

Prerequisites: American Red Cross Community First Aid and Safety or equivalent. Provide lifeguard candidates with the skills and knowledge necessary to keep the patrons of aquatic facilities safe in and around the water. (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. (2-3 day field experience required.) Course fee may be required.

243A. Winter Mountain Expedition (3)

Introduction to winter mountaineering skills; study of the mountain environment. (Activity 6 hours) (2-3 day field experience required) Course fee may be required.

243B. Summer Mountain Expedition (3)

Instruction and extended experience developing the attitudes, judgment, knowledge and skills for safe mountain travel and living. Trip planning, logistics, navigation, mountain medicine, mountaineering techniques, safe and ecological camping will be learned and practiced while on a ten-day expedition. Throughout the wilderness expedition group process, leadership, problem solving and judgment all provide growth and experiential education opportunities that develop the successful wilderness traveler. Letter grade only (A-F). (Activity 6 hours) Course fee may be required.

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. Course 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. (2-3 day field experience required.) Course fee may be required. (Activity 4 hours.)

245. Wilderness Water Expedition (3)

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. (Activity 6 hours.) (2-3 day field experience required.) Course fee may be required.

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. Course includes a field trip. Course fee may be required. (Activity 4 hours.)

250. Techniques of Basketball (1)

(Open to Kinesiology majors and minors only.) Instruction in individual and team skills and techniques utilized in the sport of basketball for successful performance. (Activity 2 hours.)

253. Techniques of Soccer (1)

(Open to Kinesiology majors and minors only.) Instruction in individual and team skills and techniques utilized in the sport of soccer for successful performance. (Activity 2 hours.)

255. Techniques of Softball (1)

(Open to Kinesiology majors and minors only.) Instruction and practice in catching, throwing, hitting, sliding, base running, and bunting. Comprehensive teaching of skills and techniques in softball. (Activity 2 hours.)

257. Techniques of Volleyball (1)

(Open to Kinesiology majors and minors only.) Instruction in individual and team techniques utilized in the sport of volleyball. (Activity 2 hours.)

260. Fundamental Rhythms (2)

Instruction and practice in fundamental rhythms involving folk and social dance forms. Designed for Kinesiology majors and minors, but open to all students. (Activity 4 hours.)

261. Techniques and Analysis of Fundamental Rhythms (2)

Open to Kinesiology Pedagogy Majors only. Instruction, practice and analysis of social and folk dances necessary for successful teaching of basic social and folk dances in the public schools. Includes instruction in the fundamental rhythms that are sequenced to make up the basic rhythm patterns of nearly all social and folk dances. Various floor pattern and rhythm variations are taught and analyzed in terms of their appropriateness for various age groups and skill levels. Letter grade only (A-F). (Activity 4 hours.)

263. Techniques of Physical Fitness (2)

Instruction, practice and evaluation in physical fitness. Calisthenics, static and dynamic flexibility exercises, weight training, fitness trail, running, and other aerobic activities, including exercises to music and relaxation training, will be part of the training program. (Activity 4 hours, including off campus long distance runs and other aerobic activities.)

264. Techniques of Golf (1)

(Open to Kinesiology majors and minors only.) Instruction and techniques in individual skills and strategies for successful performance in golf. (Activity 2 hours.)

265. Techniques and Analysis of Gymnastics (2)

(Open to Kinesiology majors and minors only.) Techniques, instruction and comprehensive analysis of the principles of movement in gymnastics. Organizational strategies utilized in presenting gymnastics in Physical Education classes. Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours)

266. Techniques of Badminton (1)

(Open to Kinesiology majors and minors only.) Instruction and techniques in the skills and strategies for successful performance in badminton. (Activity 2 hours.)

267. Techniques of Tennis (1)

(Open to Kinesiology majors and minors only.) Instruction, techniques and analysis in the concepts of teaching, coaching, and playing tennis. (Activity 2 hours.)

270. Professional Practices in Public School Physical Education (3)

Prerequisite: Students must meet the University GE writing course requirement. Co-requisite: Community CPR/First Aid/Safety or current certification. An introductory course designed to provide an overview of current professional practices in public school physical education. This course is the first course in a series of five sequential courses that Pedagogy Option majors take toward a Single Subject Physical Education credential. In this course, students begin the first phase of their Physical Education Student Assessment Portfolio (PESAP), which is used to assess the learning and progress in teaching throughout their coursework in the five sequential courses. Pedagogy Option students (Adapted, Elementary, Secondary) are required to take this course their first semester of their junior year or after completing 30 units of college course work. Open to Adapted, Elementary, and Secondary Option students in Kinesiology and Physical Education only. Letter grade only (A-F). (Lecture 2 hours, Laboratory 2 hours.)

Upper Division

300. Biomechanics of Human Movement (3)

Prerequisites: BIOL 208 or equivalent. Anatomical structure and function, and mechanical principles relating to human motion, including analytical application. (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 permission of instructor. 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. (Lecture 2 hours, Laboratory 3 hours). Course fee may be required.

308. Advanced Athletic Training (2)

Prerequisites: KPE 300, 307; BIOL 208. Study of advanced training techniques, methods and skills required for the evaluation and therapeutic treatment of athletic injuries. (Lecture 1 hour, Activity 2 hours.)

309. Developmental and Therapeutic Exercise (3)

Prerequisites: KPE 300, 301 or consent of instructor, Principles, techniques, and prescription of exercises for development or rehabilitation of the body. (Lecture 2 hours, Activity 2 hours.)

310. Therapeutic Approaches in Athletic Training (3)

Prerequisites: KPE 308 or 309 or permission of instructor. (Open to Kinesiology majors in the athletic training option only.) Theory and application therapeutic modalities and exercise rehabilitation commonly used in athletic training programs. (Lecture 2 hours, Activity 2 hours.)

312. Motor Control and Learning (3)

Prerequisites: BIOL 207, 208; PSY 100. 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, 208; PSY 100 or equivalent. Developmental perspective of the factors which contribute to the acquisition of motor control from the period of infancy through adolescence. (Lecture 2 hours, Activity 2 hours)

320. Adapted Physical Education (3)

Prerequisites: BIOL 208. This course is designed to prepare Kinesiology majors to meet the physical activity program needs of persons with disabilities. Designed primarily to understand the etiology and characteristics of persons with mental, physical, emotional, sensory, health, learning and/or multiple impairments. When appropriate, be able to successfully integrate the disabled individual into the physical education mainstream. (Lecture 2 hours, Activity 2 hours.)

332I. Sociocultural Dimensions of Sport and Human Movement (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Socio-cultural and psychological correlations to human movement.

335. Historical and Cultural Foundations of Sport and Kinesiology in America (3)

Prerequisites: (Open to Kinesiology Majors only). 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.

338I. Women in Sport (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations 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. Same course as W/ST 338I.

339I. Psychology of Sport Behavior and Athletic Performance (3)

Prerequisites: Completion of GE Foundation, PSY 100, and upper-division standing. Psychological dimensions of attitudes, behaviors, and performance in sport and exercise environments. Same course as PSY 339I.

343. Techniques and Analysis of Fitness (2)

(Open to Kinesiology majors and minors only.) Knowledge and understanding needed to plan and implement fitness programs in the K-12 school setting. Analysis of the development, maintenance, implementation, and self-evaluation of physical fitness. Methods, techniques, instructional strategies, safety factors, motivation, and necessary equipment for teaching physical fitness. The activity component of the course includes fitness development that is designed to prepare the student for the Department's fitness proficiency requirement. Letter grade only (A-F). (Lecture 1 hour, Laboratory 3 hours.)

346. Wilderness Emergency Care (2)

Prerequisites: One wilderness skill course or equivalent; KPE 210 or current certification in first aid and cardiopulmonary resuscitation. Techniques concerned with wilderness emergencies, including advanced first aid, cardiopulmonary resuscitation, search and rescue and emergency evacuation methods. (Lecture 1 hour, Activity 2 hours.) Course fee may be required.

354. Technology in Physical Education (3)

This course is designed to provide an overview of the use of technology applications in education, focusing on the application of technology in physical education. Specifically the development of word processing, spreadsheet, and presentation, documents, the use of video technology (analog and digital), development of web-based information, the use of internet related software and technologies, the creation of pdf documents, the use of personal digital assistants (PDAs) and the use of commercially produced education software. This course meets the computer technology requirement for the California Single Subject Preliminary Credential. Letter grade only (A-F). (Lecture 2 hours, laboratory 2 hours).

363. Theory and Analysis of Group Fitness Instruction (2)

Prerequisite: KPE 263. Students in this course will 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. Open to Fitness Option students in Kinesiology and Physical Education only, or by permission of instructor. Letter grade only (A-F). (Discussion 1 hour, Activity 2 hours.)

364. Fitness for Adult Populations with Unique Health Considerations (3)

Prerequisites: KPE 301. This course is designed to provide the students with 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. Open to Fitness Option students in Kinesiology and Physical Education only, or by permission of instructor. Letter grade only (A-F).

367. Fitness and the Aging Process (3)

Prerequisites: KPE 301. This course will provide knowledge in the area of fitness and the older adult. Topics will include scientific theories of aging, age-related changes that affect physical capacity, physical activity and its impact on the aging process, and physical activity programming for the older adult. Open to Fitness Option students in Kinesiology and Physical Education only, or by permission of instructor. Letter grade only (A-F). (Discussion 2 hours, Laboratory 2 hours.)

368. Resistance Training for Fitness (3)

Prerequisites: KPE 300, 301. Students in this course will learn the details of utilizing resistance training for fitness. The focus of the course will be on the proper execution of resistance exercises typically performed in the health club setting. In addition, students will learn to design resistance-training programs based on scientific principles for individuals interested in developing muscular strength and endurance for general health and fitness. Open to Fitness and Athletic Training Option students in Kinesiology and Physical Education only, or permission of instructor. Letter grade only (A-F). (Discussion 2 hours, Activity 2 hours.)

370. Movement Theory and Practice of Elementary Physical Education (3)

Prerequisite: KPE 270. A creative and movement oriented analysis of the components of basic movement with application to games, gymnastics, dance, aquatics, and developmental skills commonly experienced and/or taught in elementary school physical education programs. Principles, aims, and objectives of elementary physical education. Observation and practice in the teaching techniques used in elementary physical education. Designed for Kinesiology majors. (Lecture 2 hours, Activity 2 hours)

380. Principles, Organization and Management of Secondary School Physical Education (3)

Prerequisites: KPE 149, 171A, 237 or 238, 250, 253, 255, 257, 261, 264, 265, 266, 267, 343, 370 or consent of instructor. Corequisite: EDSS 300P. 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: KPE 320, 427. Corequisite: KPE 489A. Adaptation of physical activities, equipment, and facilities for individuals with permanent disabilities affecting motor performance. (Lecture 2 hours, Activity 2 hours)

388. Program Planning and Instruction in Adapted Physical Education (3)

Prerequisite: KPE 387. Corequisite: KPE 489A. Emphasis on program planning and the development of teaching skills in Adapted Physical Education. (Lecture 2 hours, Activity 2 hours)

405. Cardiopulmonary Aspects of Health-Related Exercise Programs (4)

Prerequisites: KPE 210 or current First Aid and CPR certificates, KPE 301. Application of advanced exercise science concepts in the design and execution of cardiopulmonary exercise training programs for apparently healthy adults. Letter grade only (A-F). (Lecture 3 hours, Laboratory 3 hours)

407. Management Strategies in Athletic Training (3)

Prerequisites: Senior standing or permission of instructor. (Open to Kinesiology majors in the athletic training option only.) Professional issues, administration, and management strategies of athletic training programs.

427./527. Physical and Motor Assessment (3)

Prerequisites: KPE 315 or equivalent and KPE 320 or equivalent. Upper-division undergraduate or Graduate standing. Consent of instructor required for graduate students prior to registration. The course includes the selection, evaluation, administration and interpretation of various tests used in the

physical and motor assessment practices of individuals with disabilities. The course is a requirement toward the Adapted Physical Education Specialist Credential. Upper-division students register in KPE 427; Graduate students register in KPE 527. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

430. Motor Control Principles and Theory (3)

Prerequisite: KPE 312 or equivalent. Study of the principles, models, and theories of human movement control with an emphasis on application to sport, physical education, human factors, and human performance. Instruction is directed toward understanding the research methods used to evaluate motor control, fundamental principles of motor control, theoretical propositions of human movement control, and applications to relevant movement-intensive settings. Letter grade only (A-F).

431. Scientific Foundations of Locomotion (3)

Prerequisites: KPE 300, 312. 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).

438./538. Motor Dysfunction and the Exceptional Person (3)

Prerequisites: A basic undergraduate course in Adapted Physical Education or its equivalent. Recognition, analysis, assessment and remediation of movement problems in a child with minor nervous system dysfunctions.

441./541. Applied Biomechanics: Lifting and Work Capacity (3)

Prerequisite: KPE 300 or equivalent (Trigonometry and PHYS 100A recommended). Study of the mechanical properties of bone, ligament, tendon and skeletal muscle. Development and description of selected biomechanical models with application to the evaluation of weight-lifting and rehabilitation exercises, as well as occupational lifting tasks. Critical analysis of methods used to test and evaluate strength. Letter grade only (A-F).

448. Wilderness Studies: Leadership Practicum (3)

Prerequisites or corequisites: KPE 346. Analysis and practice of the leadership and teaching techniques appropriate to the conduct of wilderness adventure programs. Course fee may be required.

457. Applied Theory of Teaching Team Sports (3)

Prerequisites: KPE 250, 253, 255, 257 or permission of instructor. 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: Open to Kinesiology majors and minors only, KPE 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). (Lecture 1 hour, Laboratory 3 hours.)

461. Applied Theory of Teaching Individual and Dual Sports (3)

Prerequisites: KPE 171A, 264, 266, 267 or instructor permission; senior standing. Comprehensive analysis of the principles of movement and organizational strategies utilized in archery, badminton, golf, paddle tennis, pickleball, racquetball, tennis, and track and field. (Lecture 2 hours, Activity 2 hours.) Letter grade only (A-F).

462./562. Advanced Strength and Conditioning (3)

Prerequisites: KPE 300, 301. 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, KPE 301, and/or instructor consent. A study of the physiology and patho-physiology 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: Upper-division undergraduate or Graduate standing; KPE 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration. 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. Upper-division undergraduate students register in KPE 466; graduate students register in KPE 566. Letter grade only (A-F). Same course as FCS 466./566.

467. Fundamentals of Personal Training (3)

Prerequisites: KPE 368. This course is designed to provide the student with the theoretical knowledge and practical skill needed to become a personal trainer. The course covers such topics as the business of personal training, client-trainer relationships, fitness and health assessments and exercise prescription. Open to Fitness Option students in Kinesiology and Physical only, or by permission of instructor. Letter grade only (A-F). (Discussion 2 hours, Laboratory 3 hours.)

469. Fitness Management (3)

Prerequisite: KPE 467. This course will provide 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 Kinesiology Fitness Majors Only or by permission of instructor. Letter grade only (A-F).

471./571. Biofeedback Applications in Sport and Exercise Science (3)

Prerequisites: Upper-division or graduate standing and consent of instructor. (Undergraduates register in KPE 471; graduates register in KPE 571.) Application of biofeedback in: 1) enhancing athletic performance; 2) in developing exercise and bodybuilding skills; and 3) preventing sport and exercise-related injuries. A written report is required for KPE 571 students. Letter grade only (A-F).

472./572. Applied Sport and Exercise Psychology (3)

Prerequisites: Upper division status and permission of instructor or graduate standing. Application of psychological skills and interventions to enhance athletic performance and exercise adherence.

475./575. Psychology of Coaching (3)

Current topics of psychological concern and application as related to athletic performance.

476. Physical Education for the Elementary School Teacher (3)

Prerequisites: Senior Standing. This course provides Multiple Subject Credential candidates with the knowledge and experiences necessary to implement a quality physical education program based upon the California State Physical Education Framework. Course content is designed to meet each subdomain of the CCTC physical education content specifications. Laboratories provide experiences in a variety of skills including hula hoops, jump bands, flying discs, long and short jump ropes, health related physical fitness, active games, individual and team sports, lead-up games, stunts and tumbling and international games and dances. Implementation of the FITNESSGRAM Education and Assessment Program (the state mandated fitness test battery) and subject integration activities are included. (Lecture 2 hours, Activity 2 hours)

477. Innovative Curriculum in Elementary School Physical Education (3)

Prerequisites: KPE 370 or 476 or consent of instructor. Theory and application of elementary school physical education curriculum. Designed for students specializing in elementary school physical education programs. (Lecture 2 hours, Activity 2 hours)

483. Measurement and Evaluation in Physical Education (3)

Prerequisites: Senior Standing. Principles and techniques of construction, organization, administration, interpretation and evaluation of measuring devices used in Kinesiology. (Lecture 2 hours, Activity 2 hours)

485. Neurological and Pathological Foundations for Kinesiotherapy (3)

Prerequisites: BIOL 207, 208; KPE 300, 301, 320, 489F, or permission of instructor. Survey of neurological control of normal movement and the implications of various medical pathologies for rehabilitation. Emphasis on inflammatory processes, metabolic and vascular disturbances, traumatic injuries, nutritional deficiencies, neoplasms, degenerative conditions and congenital disorders as related to the practice of Kinesiotherapy. Letter grade only (A-F).

487./587. Supervised Activity Instruction Experience (1-3)

Prerequisite: Upper division or graduate standing and consent of instructor. (Undergraduates register in KPE 487; graduates register in KPE 587). Experience in the organization of and methods for the activity component of a course in kinesiology and physical education. A written report is required for KPE 587 students. May be repeated for a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open to graduate students who have previously earned KPE 487 credit in this course. (Conference 1 hour, Laboratory 2 hours per unit.)

488./588. Clinical Basis of Kinesiotherapy (3)

Prerequisites: Completion of Bachelor's degree in Kinesiology, Physical Therapy, Exercise Physiology, or Kinesiotherapy and admission into the Kinesiotherapy Certificate Program and successful completion of a course(s) in pathological and neurological foundations of rehabilitation or approval of the Director of the Kinesiotherapy Certificate Program. The theoretical foundations of clinical practice in Kinesiotherapy. Letter grade only (A-F).

489. Field Work in Physical Activity Settings (1-3)

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. Credit/No Credit grading only. May be repeated to a maximum of 9 units of credit.

A. Fieldwork in Adapted Physical Education

B. Fieldwork in Athletic Coaching

C. Fieldwork in Athletic Training

D. Fieldwork in Fitness

Additional Prerequisites: KPE 467, Completion of 200 hours in a corporate fitness setting, 200 hours in a traditional fitness setting, and 100 hours of approved fitness experience. Supervised fitness experience in working with individuals or small to large groups in public or private agencies. Open to Fitness Option students in Kinesiology and Physical Education only.

F. Fieldwork in Kinesiotherapy

G. Fieldwork in Motor Development

K. Fieldwork in Wilderness Studies

Prerequisites: KPE 242, 244, 246 or 247, 243B or 243C or 245. Completion or corequisite of KPE 448, certification in CPR and First Aid, and permission of instructor. Supervised experience and practice in working with individuals and groups in public/private agencies and schools involved in wilderness activities. Students may enroll in 1-3 units of fieldwork. Each unit is equivalent to 40 hours of fieldwork assignment. A minimum of 120 hours are required for 3 units, of which at least 40 hours will be with the CSULB Wilderness Studies Program. The balance of the hours will be with public/private agencies.

494./594. Exercise Science Internship (3)

Prerequisites: Upper-division or graduate standing with a grade of "B" or better in KPE 300 for a biomechanics internship or KPE 301 for an exercise physiology internship or KPE 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. The internship 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 KPE 494; Graduate students register in KPE 594. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

495./595. Supervised Laboratory Methods (1-3)

Prerequisites: Upper division or graduate standing and consent of instructor. (Undergraduates register in KPE 495; graduates register in KPE 595.) Experience in the organization of and methods for a laboratory in kinesiology and physical education. Includes assisting students with their experiments and laboratory reports. A written report is required for KPE 595 students. May be repeated for a maximum of 4 units. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open to graduate students who have previously earned KPE 495 credit in this course. (Conference 1 hour, Laboratory 2 hours per unit.) Course may be repeated to a maximum of 4 units.

***497. Independent Study (1-3)**

Prerequisites: Major or minor in physical education, senior status and consent of KPE 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 for a maximum of 6 units. Letter grade only (A-F).

***499. Special Studies (1-3)**

Group investigation of topics of current interest in kinesiology or athletics. Topics to be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics.

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 KPE Graduate Sports Management Program This course will provide students with an overview of sport marketing and basic marketing terminology, as well as concepts of sports marketing and the application of these concepts. Topics for discussion include sport sponsorship, sport licensing, employee relations, community relations, media relations, customer relations, image enhancement, and the use of the Internet in sports marketing. Letter grade only (A-F).

512. Legal and Ethical Issues in Sport (3)

Prerequisites: Graduate standing; admission into the KPE Graduate Sport Management Program. An examination of legal and ethical issues associated with problem-solving and decision-making in sport management. Letter grade only (A-F).

513. Personnel and Facility Management in Athletics (3)

Prerequisites: Graduate standing admission into the KPE Graduate Sport Management Program. An examination of the principles and practices associated with managing personnel and facilities in interscholastic, intercollegiate, amateur, and professional athletics. Letter grade only (A-F).

514. Sport Finance

Prerequisites: Graduate standing; admission into the KPE Graduate Sport Management Program. Financial management principles for use in interscholastic, intercollegiate, amateur, and professional sports. Special emphasis will be placed on understanding various means for controlling costs and increasing revenue in athletic organizations. Letter grade only (A-F).

521. Foundations of Sport Management (3)

Prerequisite: EDSS 450P or equivalent, or teaching experience (including student teaching). A course in the management and supervisory philosophies; principles and practices of administering and supervising physical education and athletic programs in the public school system, including scheduling, budgeting, public relations, facility planning, liability, supervision of personnel, curriculum and evaluation; techniques of management and supervision as they apply to athletics and physical education at the secondary and college levels.

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: KPE 315 or equivalent and KPE 320 or equivalent. Upper-division undergraduate or Graduate standing. Consent of instructor required for graduate students prior to registration. The course includes the selection, evaluation, administration and interpretation of various tests used in the physical and motor assessment practices of individuals with disabilities. The course is a requirement toward the Adapted Physical Education Specialist Credential. Upper-division students register in KPE 427; Graduate students register in KPE 527. Letter grade only (A-F). (Lecture 2 hours, Activity 2 hours)

530. Neuromotor Control (3)

Prerequisites: Graduate standing, KPE 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.

538./438. Motor Dysfunction and the Exceptional Person (3)

Prerequisite: A basic undergraduate course in Adapted Physical Education or its equivalent. Recognition, analysis, assessment and remediation of movement problems in a child with minor nervous system dysfunctions.

540. Biomechanical Factors in Human Movement (3)

Prerequisite: KPE 300 or equivalent. Study of film, video and force plate data collection for human movement evaluation, including data smoothing techniques. Quantitative kinematic and kinetic analysis examples including gait, jumping and lifting activities. Comparison of 2D versus 3D analyses of movement activities. Letter grade only (A-F).

541./441. Applied Biomechanics: Lifting and Work Capacity (3)

Prerequisite: KPE 300 or equivalent (Trigonometry and PHYS 100A recommended). Study of the mechanical properties of bone, ligament, tendon, and skeletal muscle. Development and description of selected biomechanical models with application to the evaluation of weight-lifting and rehabilitation exercises, as well as occupational lifting tasks. Critical analysis of methods used to develop and test strength. Letter grade only (A-F).

546. Developmental Aspects of Motor Behavior (3)

Prerequisite: KPE 315 or equivalent. The study of major factors which contribute to the development of motor skillfulness from birth to maturity.

550. Instrumentation in the Exercise Sciences (3)

Prerequisites: Graduate standing and KPE 301 or equivalent. Theoretical and practical analysis of instrumentation used in the exercise science laboratory. Concepts to be developed include basic fundamentals of scientific instrumentation, equipment validity and reliability. Instruments to be studied include those used in the assessment of cardiopulmonary functional capacity, body composition, muscular strength, and power. Use of personal computers in the laboratory will be emphasized. Letter grade only (A-F).

551. Advanced Exercise Physiology (3)

Prerequisites: KPE 301 or equivalent and BIOL 207 or equivalent. Advanced concepts in exercise physiology. Letter grade only (A-F).

552. Physiology of Exercise Testing and Training (3)

Prerequisites: KPE 301 or equivalent and BIOL 207 or equivalent. Study of the various aspects of health enhancement exercise programs (e.g., physiological assessment, physical training, weight control, and risk factor modification) for healthy individuals and patients with systemic diseases such as hypertension, coronary artery disease, and chronic airways obstruction. Traditional grading only.

553. Environmental Aspects of Human Performance (3)

Prerequisites: Graduate standing; KPE 301 or equivalent with a grade of C or better or permission from the instructor. A study of the physiological responses and adaptations of humans to the environment during physical activity. Topics to be covered include: physical activity in the heat and cold, work in hypo- and hyperbaric environments, microgravity, and acute and chronic exposure to air pollutants. Emphasis will be placed on human physical performance and its limitations under various environmental conditions. Letter grade only (A-F).

560. Health Related Problems in Sport (3)

Prerequisites: KPE 301 and 307 or their equivalents and BIOL 207 and 208 or their equivalents. Examination of health problems related to engaging in vigorous physical activity. Letter grade only (A-F).

561. Musculoskeletal Injuries in Sport (3)

Prerequisites: KPE 300 and 307 or their equivalents and BIOL 208 or its equivalent. An in-depth study of the most prevalent musculoskeletal injuries occurring in sports activities, including mechanisms, tissue responses, and management procedures. Letter grade only (A-F).

562./462. Advanced Strength and Conditioning (3)

Prerequisites: KPE 300, 301. 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).

565./465. Clinical Exercise Electrocardiography (3)

Prerequisites: BIOL 207, KPE 301, and/or instructor consent. A study of the physiology and patho-physiology of the electrical activity of the heart. Instruction is 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; KPE 301 or equivalent; CHEM 111A or its equivalent. Consent of instructor required for upper-division undergraduate students prior to registration. 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. Upper-division undergraduate students register in KPE 466; graduate students register in KPE 566. Letter grade only (A-F). Same course as FCS 566./466.

571./471. Biofeedback Applications in Sport and Exercise Science (3)

Prerequisites: Upper-division or graduate standing and consent of instructor. (Undergraduates register in KPE 471; graduates register in KPE 571.) Application of biofeedback in: 1) enhancing athletic performance; 2) in developing exercise and bodybuilding skills; and 3) preventing sport and exercise-related injuries. A written report is required for KPE 571 students. Letter grade only (A-F).

572./472. Applied Sport and Exercise Psychology (3)

Prerequisites: Upper division status and permission of instructor or graduate standing. Application of psychological skills and interventions to enhance athletic performance and exercise adherence.

573. History of Sport in the U.S.A. (3)

Prerequisite: KPE 335 or equivalent. An analysis of the history of American sport as it reflects the dominant themes in American society.

574. Contemporary International Sport (3)

Investigation of contemporary international sport in various world cultures.

575./475. Psychology of Coaching (3)

Current topics of psychological concern and application as related to athletic performance.

577. Sport in U.S. Culture (3)

Prerequisite: KPE 332I 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.

580. Computer Applications in Physical Education (3)

Prerequisites: Graduate standing/permission from instructor. Introduction to computer hardware and software used in Kinesiology and Physical Education 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. (Undergraduates register in KPE 487; graduates register in KPE 587). Experience in the organization of and methods for the activity component of a course in kinesiology and physical education. A written report is required for KPE 587 students. May be repeated for a maximum of 4 units. Letter grade only (A-F). Restricted to major students only. Not open to graduate students who have previously earned KPE 487 credit in this course. (Conference 1 hour, Laboratory 2 hours per unit.)

588./488. Clinical Basis of Kinesiotherapy (3)

Prerequisites: Completion of Bachelor's degree in Kinesiology, Physical Therapy, Exercise Physiology, or Kinesiotherapy and admission into the Kinesiotherapy Certificate Program and successful completion of a course(s) in pathological and neurological foundations of rehabilitation or approval of the Director of the Kinesiotherapy Certificate Program. The theoretical foundations of clinical practice in Kinesiotherapy. Letter grade only (A-F).

588L. Kinesiotherapy Clinical Training I Laboratory (6)

Corequisite: KPE 588. Instruction and observation at the Long Beach Veterans Administration Medical Center. Letter grade only (A-F).

589. Kinesiotherapy Clinical Training II (3)

Prerequisite: Satisfactory completion of KPE 588. The theory and practice of kinesiotherapy techniques in a medical center setting. 500 hours of instruction and observation at the Long Beach Veterans Administration Medical Center. Letter grade only (A-F).

589L. Kinesiotherapy Clinical Training II (3)

Corequisite: KPE 589. Laboratory instruction and observation at the Long Beach Veterans Administration Medical Center.

590. Statistical Analysis and Measurement in Kinesiology and Physical Education (3)

Prerequisites: EDSE 421, EDSS 450P or 450W, KPE 483 or equivalent. Consideration of the logic and application of statistical inference, sampling theory, correlation, analysis of variance and design of statistical studies. 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 to the KPE Graduate Sports Management Program. Focus on planning and development of interscholastic, intercollegiate, amateur, and professional sport-related events. Complete 15 hours of seminar and 120 hours of supervised practical experience in a sporting event setting. Letter grade only (A-F).

592A. Sports Management Internship (3)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; KPE 521 or 685; approval of Intern Coordinator. 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 for a maximum of 6 units. Letter grade only (A-F).

592B. Sports Management Internship (6)

Prerequisites: Bachelor degree with a major or minor in Kinesiology or Physical Education or an approved related major; KPE 521 or 685; approval of Intern Coordinator. A minimum of 40 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: May not be taken if student is full-time employed. 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 for a maximum of 6 units. 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).

594./494. Exercise Science Internship (3)

Prerequisites: Upper-division or graduate standing with a grade of "B" or better in KPE 300 for a biomechanics internship or KPE 301 for an exercise physiology internship or KPE 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. The internship 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 KPE 494; Graduate students register in KPE 594. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

595./495. Supervised Laboratory Methods (1-3)

Prerequisites: Upper division or graduate standing and consent of instructor. (Undergraduates register in KPE 495; graduates register in KPE 595.) Experience in the organization of and methods for a laboratory in kinesiology and physical education. Includes assisting students with their experiments and laboratory reports. A written report is required for KPE 595 students. May be repeated for a maximum of 4 units. Letter grade only (A-F). Restricted to Kinesiology major students only. Not open to graduate students who have previously earned KPE 495 credit in this course. (Conference 1 hour, laboratory 2 hours per unit) Course may be repeated to a maximum of 4 units.

597. Independent Research (1-3)

Prerequisites: Consent of KPE 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: KPE 312, 590 and 696 (may be taken concurrently). Identification and analysis of principles and concepts applicable to motor learning in physical education.

633. Seminar in Sport Psychology (3)

Prerequisites: KPE 332I or equivalent and PSY 100; teaching or coaching experience (including student teaching). Study of psychological theories and concepts and their relationship to human

behavior in sport. Sport viewed in the context of the participant, the teacher/coach, the spectator and the entrepreneur.

638. Seminar in Trends in Adapted Physical Education (3)

Prerequisite: KPE 537 or 538, or equivalent. An examination and analysis of the current trends in Adapted Physical Education.

685. Seminar in Athletics (3)

Experience in the field. Special problems related to the administration of an athletic program including current issues and practices and supervised research in selected areas.

695. Seminar In Professional Literature (3)

Prerequisites: KPE 590, 696. Critical analysis and synthesis by comparative review of professional literature in kinesiology and physical education. Required of all candidates not electing thesis option.

696. Research Methods (3)

Prerequisites: KPE 590, undergraduate major in Kinesiology or Physical Education or related field. Methodological approaches to contemporary problems in physical education; research design and reporting; bibliography. Required of all master's degree candidates. To be completed within the first 12 units of 500-600 series courses.

697. Directed Studies (1-3)

Prerequisites: KPE 590, 696, advancement to candidacy. Research in an area of specialization under the direction of a faculty member.

698. Thesis/Project (1-4)

Prerequisites: KPE 590, 696, advancement to candidacy. Planning, preparation and completion of an approved thesis/project.

699. Seminar in Selected Topics (3)

Intensive study of salient problems of current professional importance to experienced physical educators. May be repeated (with selection of a second topic) for a maximum of six units. Topics to be announced in the *Schedule of Classes*.

LATIN AMERICAN STUDIES

College of Liberal Arts

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Roland E. Bush (Comparative Literature)

Norma Stoltz Chinchilla (Women's Studies/Sociology)

Alejandra Cox Edwards (Economics)

Larry N. George (Political Science)

José López (Chicano and Latino Studies)

Claire E. Martin (Romance, German, Russian Languages and Literatures)

José Sánchez (Film and Electronic Arts)

John Tsuchida (Asian and Asian American Studies)

Associate Professors

Jim Curtis (Geography)

James Green (History)

Jayne Howell (Anthropology)

Carlos Piar (Religious Studies)

Victor Rodriguez (Chicano and Latino Studies)

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Bonnie Gasior (Romance, German, Russian Languages and Literatures)

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Catherine Kamisaruk (History)

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Jill Pinkney Pastrana (Educational Psychology)

Raúl Reis (Journalism)

José Rodríguez (Communication Studies)

Anna Sandoval (Chicano and Latino Studies)

Carlos Silveira (Art Education)

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Certificate in Latin American Studies (code COLACT01)

Latin American Studies administers an interdisciplinary program which offers students interested in this field the opportunity to pursue courses leading to a Certificate in Latin American Studies. Courses used to meet this certificate requirement may be counted also, where applicable, toward the General Education requirements, and the major or minor requirements of the cooperating departments.

Requirements

1. The following are the requirements for the Latin American Certificate Program:
 - A. A Bachelor's Degree with a major in a traditional discipline; may be completed concurrently with the certificate.
 - B. The successful completion of two college intermediate level courses in Spanish, Portuguese or any other language appropriate to the student's area of concentration.
 - C. Students must consult with and receive approval from the program advisor.
2. The instruction Program is comprised of 24 units which may be completed concurrently, distributed as follows:
 - A. CORE (Required of all students 6 units. Choose from two disciplines) ANTH 323, 324; GEOG 320I; HIST 362, 364; POSC 358, 359, SPAN 445
 - B. ELECTIVES: 18 units from the following disciplines. Cannot duplicate courses taken in the Core: ANTH 323, 324, 345, 490*, 499*; CHLS 352, 380, 400, 420, 499*; C/LT 440, 499*; ECON 363, 490*, 499*; HIST 362, 364, 366, 461, 462, 463, 466, 490*, 495, 498*; FEA 392C; POSC 358, 359, 497*, 499*; SOC 341, 490*, 499*; SPAN (RGR) 341, 441, 445, 492, 550, 490*, 499*

*Special Topics and Directed Studies courses in the area of Latin American Studies have to be approved by the advisor.

Minor in Latin American Studies (code HISTUM03)

The requirements for a recently established interdisciplinary Minor in Latin American Studies can be found in this catalog in the sections describing the Departments of History and Romance, German, Russian languages and Literatures.

LEGAL STUDIES

College of Liberal Arts

Director

Albie Burke (History)

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Certificate in Legal Studies (code COLACT03)

The Certificate Program in Legal Studies 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 and should be especially useful to those preparing for careers in government service, business, journalism and education. 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. See pp. 102 and 114.

Requirements

Twenty-four total units distributed as follows:

1. Twenty-one units which must include HIST 308I and an additional 18 units from the 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 an adviser in the program;
2. Project paper (3 units). To be written during the senior year under the supervision of a faculty member participating in the Certificate 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; B/ST 332; CRIM 301, 351; ECON 355; FIN 220, 320; HIST 306I, 308I, 479, 480, 489; PHIL 352, 451I, 452I; POSC 311, 312, 318, 376, 412, 414, 419; SW 350; COMM 441I; WST 308.

Persons interested in the Program for Legal Studies should contact Dr. Albie Burke, Director, Department of History.

LINGUISTICS

College of Liberal Arts

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Stephen B. Ross (Emeritus, 1999)

Sara W. Smith

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Barbara LeMaster

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Barbara LeMaster

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Students desiring information should contact the department office.

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Baccalaureate Minor in Linguistics (code LINGUM01)

A minor in Linguistics consists of a minimum of 21 units, with at least one course selected from each of five subject area categories. Although not required for the minor, foreign language courses are recommended. In selecting courses, students should be aware that some courses have prerequisites, including language proficiency.

Courses which are counted for a major may not also be counted for a minor, but students who have taken a course from any category as a part of their major may substitute an elective with approval of the Department Chair.

Requirements

Select one course from each category:

Category I Introduction: ANTH 170, LING 363I;

Category II Phonology: C D 330, LING 420, FREN 414, GERM 303, SPAN 425;

Category III Syntax: LING 421, FREN 411, GERM 401, SPAN 426;

Category IV Psycholinguistics and Neurolinguistics: C D 361, ED P 454, LING 329, PSY 438;

Category V Language, Culture, and Society: ANTH 412I, 413;

Electives to a program total of 21 units selected from: any course listed above, ANTH 470; CHLS 403; LING 423, 426; PHIL 484; SPAN 427, and variable/special topics courses on linguistics subjects offered through the participating departments. These topic courses are shown on an approved list available in the participating departments.

Interdisciplinary Minor in Crosscultural Language and Academic Development Studies (code COEDUM01)

The minor comprises courses that integrate studies of culture, language, learning and the academic environment, and human development. It is an interdisciplinary program designed to support career objectives related to public education in Crosscultural Language and Academic Development. The minor consists of a minimum of 18 units selected with an advisor. Courses in the department of the student's major may not be used.

1. One course from each of the following areas (12 units):

Culture: ANTH 421/LING 425 or EDP 432/EDEL 430

Language: EDP 454 or LING/CD 329

Schooling: EDP/LING 485

Development: EDP 301, EDP 302, HDEV 307I, or PSY 361

2. Six additional units, selected with an advisor, from the following:

Culture: AIS 319, ASAM 319, B/ST 319, CHLS 319, W/ST 319, ANTH 329, ANTH 412I, ANTH/LING 413, ANTH 419, ANTH 421/LING 425, ANTH/WST 475, CHLS/ASAM 335I, EDP 432/EDEL 430

Language: ANTH 170, CHLS 402, EDP 454, LING/CD 329, LING/ENGL 327, LING 363I, LING 472, LING 486.

Schooling: AIS 361, ASAM 310, B/ST 420, CHLS 340, EDP

305, EDP 350, EDP 476.

Development: EDP 301, EDP 302, HDEV 3071, PSY 361.

Master of Arts in Linguistics (code LINGMA01)

The program for the M.A. degree in linguistics 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. degree in Linguistics offers three options and one concentration:

1. General Linguistics Option
2. Language and Culture Option
3. Teaching English as a Second Language Option
4. Special Concentration

Graduate assistantships and teaching assistantships may be available to qualified students.

Prerequisites

1. A bachelor's degree with a 2.75 GPA for the most recent 60 units;
2. 18 units of undergraduate coursework as follows (can be taken at CSULB):
 - A. Twelve (12) units in linguistics including syntax, phonology, language acquisition, language variation.
 - B. Six (6) units either in linguistics or in a related field (such as TESL, cross-cultural communication, cognition, artificial intelligence, or literature in another language).

Advancement to Candidacy

1. Satisfaction of the general university requirements for advancement to candidacy, including prerequisites, the Writing Proficiency Examination, and GPA.
2. Completion of the foreign language requirement, either:
 - A. Two courses of a foreign language 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, 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 Chair, 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 30 units of approved upper division and graduate courses for the thesis option or a minimum of 33 units of approved upper division and graduate courses of the comprehensive examination option, including
2. A minimum of 21 units at the 500 or 600 level;
3. The completion of the five course core requirement for the degree;
4. The completion of requirements of one of the options designated in the program;
5. Completion of one of two culminating experiences:

A. A thesis and its accompanying oral defense and oral examination.

B. The comprehensive examination and its accompanying graduate paper (LING 697)

6. A GPA of 3.00 on all courses included in the program.

Core

1. Two courses from the following three: LING 620, 625, 633.
2. One course from the following: LING 540, 610, 650.
3. One course from the following: PSY 539, SPAN 524.
4. One course from the following: LING 580/ANTH 570, LING 595/ED P 595, LING 596.

General Linguistics Option (code LINGMA02)

This option is 15 units including all courses in the core categories 1 and 2 (LING 620, 625, 633, 540, 610, 650) and only one course each from Categories 3 and 4; and approved selections from ANTH 597; CD 665; ED P 573, 672; LING *470/ANTH *475, LING*423/ENGL 423/523, LING *426/ENGL 426/526, LING 533/ANTH 530, LING 575/ED P 578, 697, 698; PHIL 595; PSY 538; SPAN 527.

Language and Culture Option (code LINGMA03)

This option is 15 units. Students in this option are advised to take LING 540 as a part of their core: LING 533/ANTH 530, and either LING *413/ANTH 413 or LING *470/ANTH 475; and approved selections from ANTH 597, 630; ED P 573; LING *423/ENGL 423/523, LING 575/ED P 578, LING 580/ANTH 570, LING 597/LING 697, LING 698.

Teaching English as a Second Language Option (code LINGMA04)

This option is 15 units. LING 500, LING 561, and either LING 575/ED P 578 or ED P 672 and approved selections from CD 560, 590; ED P *454, 573; LING *425/ANTH *421, *460, LING *485/ED P 485; LING *486, 562, LING 589/ED P 589, LING 678, 597, 698; PSY 538; SPAN 524, 527.

Special Concentration

This concentration is 12-15 units. Students electing this concentration must [1] consult with the Program Director or Graduate Coordinator 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.

Certificate in Teaching English as a Second Language (code ENGLCT02)

The Certificate in Teaching English as a Second Language (TESL) is open to students from any field who desire 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.

Recommendations

Students are strongly urged to include foreign language study as a part of their undergraduate curriculum, particularly those wishing the Language Development Specialist Certificate in addition to the TESL Certificate. Students planning to teach in California schools (K-12) must also include appropriate credential requirements in their total program.

Prerequisites

1. A baccalaureate degree with a GPA of 2.50 on the last 60 units.
2. One course in basic English linguistics.

Requirements

1. Twenty-four units, including:
 - A. 20 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 on all work included in the program.
3. Passing of the CSULB Writing Proficiency Examination.
4. Eight courses, one each in eight different categories:
 - A. One course in basic ESL Methodology, LING 486;
 - B. One course in cross-cultural communication, selected from LING *425 (ANTH *421) or ED P 573;
 - C. One course in Language Acquisition, selected from CD 329, LING 329 or ED P 454;
 - D. One course in intermediate English linguistics, selected from LING 420 or 421;
 - E. One course in testing and assessment, selected from CD 460 or LING 562;
 - F. One course in curriculum, selected from LING 500 or LING 561;
 - G. One course in specialized methodology, selected from CD 560, LING *460, LING 575/ED P 578, ED P 576, LING 589/ED P 589);
 - H. Three units of a practicum (LING 593).

Students who have taken equivalent courses in the above categories but need units to complete certificate requirements may elect to take courses from the following: ANTH 412I, *413; CD 330, 361, 363; EDEL 430; ED P 454; EDSE 401, 402, 435, 436; LING 423, 650; PSY 438/538; COMM 309; SPAN 427/527.

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

101. Introduction to the World's Languages (3)

Prerequisite: ENGL 100. A general introduction to the important roles that the world's languages have played historically, socially, culturally and politically, especially involving contact between languages. The course considers the nature of language, how languages operate, how they may differ from each other, how they change over time, and how they are related to each other. The history of both the spoken and the written forms of language are considered.

170. Introduction to Linguistics (3)

Prerequisite/corequisite: Any G.E. Foundations course. Nature of language; its relation to culture; language structure and processes of change; language universals, contrasts and relationships. Same course as 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.

325. Modern English Grammar (3)

Introduction to current descriptions of English grammar, with reference to structural and transformational models of American English as well as to traditional ones. Not open to students with credit in ENGL 325. Letter grade only (A-F).

327. Essentials of the English Language (3)

Prerequisites: ENGL 100 or its equivalent. Introduction to the essentials of English language study for credential candidates, including the history of the English language, key models of English grammar, and a variety of applied topics ranging from semantics and dialect study to current research in the teaching of English. Same course as ENGL 327.

329. Introduction to Language Acquisition (3)

Introduction to the study of the acquisition of first and second languages. Linguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The influence of developmental stages, and social and cultural factors on the individual. Same course as C D 329.

339. Linguistics for Crosscultural Academic Development [in Secondary School Settings] (3)

Principles of language structure, variation and usage for educators. Educational aspects of first and second language acquisition theories. Social and psychological influences on linguistic behavior in middle and high schools. Cultural and political issues affecting language attitudes, maintenance and shift. Letter grade only (A-F). Same course as EDSE 339.

363I. Implications of Human Language (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course 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 examined through the methodologies of these disciplines.

379. Sociolinguistics and Schooling (3)

Prerequisite: LING 329 or equivalent. Study of language variation as it connects to standard language development in society and individuals. Analysis of key sociolinguistic concepts, such as: dialect, speech event, linguistic repertoire, language community, prescriptive and descriptive grammar. Analysis of verbal and

written classroom language. Connection between variation and development in speaking, reading and writing. (Letter grade only (A-F).) Same course as EDEL 379.

***413. Language and Culture (3)**

Relation of language patterns to social life; problems of meaning in cross-cultural communication and language translation; practical application to business, government and religious contacts. Not open to students with credit in ANTH 440. Same course as ANTH 413.

420. English Phonology (3)

Prerequisites: Consent of instructor. Study of the phonology of American English, using articulatory phonetic, phonemic, and distinctive feature analyses. Not open to students with credit in ENGL 420 or 520. Letter grade only (A-F). Lecture-problems.

421. English Syntax (3)

Prerequisites: ENGL 325 or consent of instructor. Study of the morphology and syntax of American English, using structural, transformational, and recent models. Not open to students with credit in ENGL 421. Seminar. Letter grade only (A-F).

***423. Semantics (3)**

Study of meaning in language. Same course as ENGL 423.

***425. Education Across Cultures (3)**

Cross cultural perspectives on education in modern society; problems in education of non-western peoples by those from western cultural backgrounds. Same course as 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.

428. Applied Linguistics (3)

Linguistic research applied to the study and teaching of the English language. Not open to students with credit in ENGL 428/524. Letter grade only (A-F).

429. 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 to students currently enrolled in the Liberal Studies program. Same course as EDP 428, FCS 409, and EDEL 429.

431. Cultural and Linguistic Diversity in Schools (3)

This course surveys the multiple forms of diversity present in schools, including issues surrounding culture ethnicity, race, linguistics, faith, special needs, gender, sexual orientation, and socioeconomic status. Emphasis is on multicultural education, language minority education, and the promotion of learning for all students. The course treats concepts of culture, educational equity, social justice, anti-bias and anti-racist curriculum, stereotyping, and cultural and linguistic contact. An overview is provided of the history, policy and practices regarding cultural and linguistic minorities in the United States and the impact on education. Special focus is placed on educational initiatives to address the rich ethnic diversity of California schools. Models of English language development and bilingual education are examined. Traditional grading only. Same course as EDEL 431 and EDP 431.

433. Survey of Discourse Analysis (3)

An introduction to discourse analysis, the study of language structure from the viewpoint of its context of production. The place of discourse analysis in theoretical and applied linguistics. The structure of genres: conversation, narrative, exposition, and others; language in special settings; pragmatics and discourse; developmental issues. (Discussion) (Not open to students with credit in LING 530.) Letter grade only (A-F).

441. Khmer Literacy for Khmer Speakers: Introduction (3)

Prerequisite: Fluent oral skills in Khmer. First of a 4-course sequence. Introduction to Khmer writing system. Practice in reading, decipherment, vowels, consonants and syllable combinations. Oral practice, honorifics, culturally appropriate interaction. Letter grade only (A-F). Same course as A/ST 441.

442. Khmer Literacy for Khmer Speakers: Intermediate A (3)

Prerequisite: LING 441 or consent of instructor. Second of a 4-course sequence. Continued practice in Khmer writing system. Vocabulary development, reading and writing long sentences and simple text. Appropriate social and educational discourse. Letter grade only (A-F). Same course as A/ST 442.

443. Khmer Literacy for Khmer Speakers: Intermediate B (3)

Prerequisite: LING 442 or consent of instructor. Third of a 4-course sequence. Contextual reading for comprehension, culture and grammatical knowledge. Development of oral skills, through discussion of content, role play and verbal critique. Letter grade only (A-F). Same course as A/ST 443.

444. Khmer Literacy for Khmer Speakers: Advanced (3)

Prerequisites: LING 443 or consent of instructor. Fourth of a 4-course sequence. Composition and written translation. Preparation for BCLAD tests 5 & 6: Culture and Language of Emphasis. Reading authentic texts. Letter grade only (A-F). Same course as A/ST 444.

***460. TESL Composition (3)**

Prerequisites: Passing of the Writing Proficiency Examination. 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, W/ST 475.

472. Language and Discrimination (3)

Survey and analysis of discrimination on the basis of language as component of racial, ethnic, gender, and class discrimination; focus on historical and contemporary examples; related analysis of bias toward so-called non-standard varieties of language; analysis of the language of racism and sexism.

***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. Same course as EDP 485.

***486. Foundations of Language Minority Instruction: Practice (3)**

Provides a general introduction to practical foundations of language minority instruction and provides background on historical development and use of current methods and techniques for language learning strategies. Classroom observations in off-campus or on-campus bilingual and English-as-a-second-language classrooms. Letter grade only (A-F).

490. Special Topics in Linguistics (1-3)

Prerequisite: Consent of instructor. Investigation of topics of current interest and concern to students in linguistics and allied areas. Topics will be announced in the *Schedule of Classes*. May be repeated to a maximum of 6 units with different topics.

Graduate Level

500. Educational Linguistics (3)

Prerequisites: Nine units of linguistics or permission 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. (Discussion.) Letter grade only (A-F). Same course as ED P 577.

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. 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 ANTH 530.

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.)

561. Second Language Curriculum Development (3)

Prerequisite: LING 421 or permission of the instructor. Study of the content of second language instruction, from nongrammatical, communicative approaches to content-based instruction. The course will look at both K-12 and adult language instruction.

562. Second Language Testing and Assessment (3)

Prerequisite: LING 421. 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 permission of instructor. This course provides a general introduction to the field of literacy studies from a linguistic and sociocultural perspective. Among the major topics presented are the relationship between oral and written language; the acquisition of literacy; biliteracy; the relationship between literacy and socioeconomic/sociocultural factors; and the impact of societal expectations regarding literacy. Pedagogical implications of these issues are explored. Letter grade only (A-F). Same course as ED P 578.

580. Linguistic Field Methods (3)

Prerequisite: An introductory linguistics course. This course introduces the student to the practical study of unfamiliar languages. Through the help of a native speaker of a non-European language, the student will learn how to write down the sounds of the language and how to determine the structure of the language. Same course as ANTH 570.

589. Adult Literacy and Language Diversity

Prerequisites: 3 units from ED P 578/LIN 575; ENGL 510; ENGL 535; or from an instructor approved course in literacy studies or adult second language acquisition. A general survey of issues in adult and family literacy/biliteracy and native language literacy with special focus of the educational needs of language minority adults and their families; consideration of the relationship between theory, policy and practice with attention to the social economic and cultural characteristics of populations in need of literacy services. Letter grade only (A-F).

590. Advanced Special 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. Topics will be announced in the *Schedule of Classes*. May be repeated to a maximum of 6 units with different topics.

593. Practicum in TESL (3)

Prerequisite: LING 486. Experience in Teaching English as a second language supplemented by reading, research, and advising. Students must be available to be assigned to regularly scheduled courses in TESL five hours per week, as well as meeting with the instructor. Credit/No Credit grading only. May be repeated to a maximum of 6 units.

595. Qualitative Research Methods (3)

This course provides an introduction to the theory and application of ethnographic and qualitative methods in educational settings with special emphasis on applications for educational linguistics, educational anthropology, and research related to language arts instruction. It surveys the basic rationale for qualitative/ ethnographic inquiry as well as basic concepts and methods for applications in teacher-as-researcher approaches and for action research. Letter grade only (A-F). Same course as ED P 595.

596. Research in Linguistics (3)

Prerequisite: Advancement to candidacy for the M.A. in Linguistics. Principles and practice of quantitative and qualitative research design, analysis and reporting. Access to sources,

evaluation of published research, application of tools. Letter grade only (A-F). (Seminar, 2 hours; Laboratory, 3 hours.)

597. Directed Study in Linguistics (1-3)

Prerequisite: Permission 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 421 or equivalent. Advanced study of language change, language families, and language relationships using the methods of comparative linguistics. Two hours seminar, two hours laboratory. 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. (Seminar, 2 hours; Laboratory, 3 hours.) 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. This graduate course situates discourse analysis in linguistic theory and method, and focuses on the relationship of discourse and grammar. Examined are (1) the relationship of morphosyntactic devices and discourse context; (2) information flow and its relations to grammar; (3) the pragmatic motivation for grammatical systems; and (4) the relationship of grammar and genre. (Discussion) Letter grade only (A-F).

650. Seminar in Bilingualism (3)

Prerequisites: LING 420, 421 or consent of instructor. Advanced study of the degrees and kinds of bilingualism and bilingual situations which exist. Implications of such distinctions for linguistics and education will be covered. 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 Examination for the 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.

LIBERAL STUDIES

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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 three 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 teacher credential; 2) Track I is for students who seek subject matter preparation for elementary teaching as preparation for a post-baccalaureate credential program; 3) Track II is for students with more varied professional or career goals who prefer a sound generalist program to one requiring early specialization.

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 Academic Advising Center for G.E. advising.

The Liberal Studies Program

The program of study for the Liberal Studies major is composed of two parts: a Core and a Concentration. There are three program tracks in Liberal Studies, each with its own Core and related Concentrations.

The Integrated Teacher Education Program (ITEP) combines the study of academic subject matter for elementary school teaching with professional preparation and student teaching. Successful completion of ITEP includes both a Bachelor of Arts degree and a Multiple Subject teaching credential.

Track I of the Liberal Studies 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. Students who complete the Track I program with Cs or better in all required core courses, including the capstones, will satisfy the CCTC subject matter waiver requirements and will not be required to take the California Subject Examinations for Teachers (C-SET) as a requirement for post baccalaureate credential programs. It is possible to complete the major requirements for graduation without meeting subject matter waiver requirements. Students entering post baccalaureate credential programs who fail to meet subject matter waiver requirements will have to pass the C-SET in order to demonstrate subject matter proficiency."

Track II of the Liberal Studies program is designed for those students who seek a rich, non-specialized, multi-dimensional and cross-disciplinary course of study as a foundation for life-long learning, enlightened citizenship, and a wide range of academic and career opportunities.

INTEGRATED TEACHER EDUCATION PROGRAM

Bachelor of Arts in Liberal Studies (code L/STBA03)

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. The B.A. portion of the program satisfies the subject matter competence requirements of the California Commission on Teacher Credentialing (CCTC) for multiple subject teachers.

Within the Integrated Teacher Education Program there are 117 units of required baccalaureate-level coursework and 26 units of credential-specific coursework.

Students who complete the Core and Concentration courses, who have completed at least 160 hours of approved Ser-

vice Learning, and who meet all other University requirements, but who do not advance to the Credential portion of the program, will be eligible to 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 Educational Psychology, Administration and Counseling. Further information about teacher preparation programs can also be obtained from the College of Education at (562) 985-9259 or by e-mail: cedinfo@csulb.edu

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 not only an approved major, but 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 Academic Advising Center for G.E. advising.

The ITEP Curriculum

The ITEP curriculum has several components. Students complete required coursework in the ITEP Core, they choose and complete courses in an ITEP Concentration, and they complete 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 160 hours of service learning, coordinated by the SERVE Program in the College of Education, must be completed prior to graduation.

Admission to the Multiple Subject Credential Program

Prior to enrollment in EDEL 300, ITEP students must be formally admitted into the Multiple Subject Credential Program (MSCP) at CSULB. Students should apply to the MSCP during the semester prior to enrolling in EDEL 300. Admission to the MSCP requires that the candidate: 1) purchase the MSCP for ITEP Handbook; 2) complete EDEL 200 with a grade of "B" or higher; 3) attempt the California Basic Educational Skills (CBEST) examination; 4) attain a cumulative grade point average of at least 2.75; 5) submit a portfolio which includes a SERVE evaluation as well as 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) attend an interview panel; 7) submit a negative tuberculosis skin test or chest X-ray taken within the last three years.

The ITEP Core

A minimum of 105 units distributed in Areas I, II, III, IV, V, VI and VII. No Core classes may be taken credit-no credit. No Core classes may be used to fulfill Concentration requirements. All courses in the core must be completed with a grade of "C" or better.

Area I: Language Studies

(Minimum 19 units)

Group 1. Composition in English:

Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100

Group 2. Applied Composition: ENGL 309

Group 3. Oral Communication in English:

Choose one course from COMM 130, 335

Group 4. Children's Literature: ENGL 481

Group 5. Language Acquisition:

Choose one course from C D 329, ED P 454, LING 329

Group 6. Integration and Assessment: C/LA 400

Area II: Mathematics

(Minimum 12 units)

Group 1. Probability and Activities-Based Statistics: MTED 105

Group 2. Real Numbers: MTED 110

Group 3. Higher Math: MTED 211*

(*Students who choose a Math Concentration must take MTED 312 instead of MTED 211)

Group 4. Integration and Assessment: MTED 402

Area III: Natural Science

(Minimum 15 units)

Group 1. Physical Science: CHEM 105, PHSC 112

Group 2. Earth Science: Choose from: GEOL 102+104, 106*
(*GEOL 106 is the preferred course)

Group 3. Life Science: BIOL 200

Group 4. Integration and Assessment: SCED 401

Area IV: History/Social Science

(Minimum 18 units)

Group 1. American History:

Choose one course from HIST 172, 300

Group 2. California History: HIST 473

Group 3. American Institutions:

Choose one course from POSC 100, 326*, 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 4. Multicultural Dimensions:

Choose one course from AIS/ASAM/BST/CHLS/ 215, AIS/ASAM/BST/CHLS/WST 319, ANTH 421/LING 425

Group 5. World History/Geography:

Take either *HIST/GEOG 250, or HIST 211+ GEOG 100
(*HIST/GEOG 250 is the preferred course)

Group 6. Integration and Assessment: C/LA 471

Area V: Arts and Humanities

(Minimum 15 units)

Group 1. Music: MUS 180

Group 2. Visual Art: ART 300

Group 3. Dance or Theater:

Choose one course from: C/LT 124, 324I, DANC 110, 179, THEA 113, 122, 124, 324I

Group 4. Ethics, Values and Beliefs:

Choose one course from PHIL 100, 160, 160W, 203, 204, 305, R/ST 100, 202, 485

Group 5. Integration and Assessment: L/ST 404

Area VI: Critical Issues in Teaching and Learning

(Minimum 19 units)

Group 1. Library, Research Skills, and Technology:

Choose one course from *ETEC 110, 444
(*ETEC 110 is the preferred course)

Group 2. Critical Thinking:

Choose one course from: A/ST 190, COMM 131+131W, ENGL 102, HIST 101, PHIL 170, POSC 105, PSY 130

Group 3. Family and School Partnerships: EDP 180

Group 4. Risk, Coping and Resilience:

Choose one course from: FCS 219, 319

Group 5. Child Development and Learning:

Choose one course from: EDP 301, HDEV 307I

Group 6. Physical Education: KPE 476

Group 7. Health Science: H SC 411A

Area VII: Introduction to Elementary Education

(Minimum 7 units)

Group 1. Teaching and Learning: EDEL 100, 200, 300

The ITEP Concentrations

ITEP students must complete a 12 unit Concentration in one of the following fields: Language and Literacy, Mathematics, Natural Science, or History/Social Science. Advisor approval must be received both for the choice of Concentration and for the specific course work, as well as for any subsequent changes in the plan of study. No course in the Concentration may be taken credit-no credit. No course used in the Core may be used in the Concentration.

Language and Literacy Concentration

Group 1. Foundations of Literature: ENGL 180

Group 2. Exploring Literature:

Choose one course from AIS 340, ASAM 260, 360, B/ST 340, 343, 346, CHIN 370, CHLS 150, C/LT 415I, ENGL 250A, 250B, 270A, 270B, 363, 375, 385, 386, 482, JAPN 370, W/ST 382

Group 3. Sociolinguistics and Schooling: LING/EDEL 379

Group 4. Language, Literacy and Culture:

Choose one course from: ANTH 413, 475, COMM 309, 330, 355, EDP 432, 439, 485, ENGL 300, 327, 410, 435, 436, LING 327, 413, 470, 485, 486, W/ST 475

Mathematics Concentration

Group 1. Technology: MTED 301

Group 2. History of Mathematics: MTED 315

Group 3. Number Theory and Algebraic Structures: MTED 320

Group 4. Functions, Models and Concepts of Calculus: MTED 325

Natural Science Concentration

Each student pursuing a Natural Science Concentration will choose one of two pathways. Pathway A is a "breadth" pathway which is particularly appropriate for future K-5 teachers. In Pathway A students choose at least one course from three different areas. Pathway B is a "depth" pathway which is particularly appropriate for future 6-8 grade teachers as well as for students who prefer a stronger emphasis on investigation and experimentation. In Pathway B students choose at least three courses from a single area.

Pathway A: Breadth

Choose coursework from EACH of the following groups:

Group 1. Earth Science:

Choose one course from: GEOL 160, 190, 240, 300I

Group 2. Life Science:

Choose one course from: BIOL 100, 153, MICR 101, 300I

Group 3. Physical Science:

Choose one course from: ASTR 100, CHEM 100, 111A, PHYS 100A

Group 4. Additional Coursework:

If necessary to reach 12 units in the Concentration, choose from GEOL 105, ASTR 100L, NSCI 309I, NSCI 375I or any additional class from those listed above

Pathway B: Depth

Choose an option and take three courses in that option:

Earth Science Option:

Choose three courses from: GEOL 160, 163, 190, 240, 300I, 341, GEOL/BIOL 303

Life Science Option:

Choose three courses from: BIOL 100, 153, GEOL/BIOL 303, MICR 101, 300I

Physical Science Option:

Choose three courses from: ASTR 100, CHEM 100, 111A, 111B, 202, 302, PHYS 100A, 100B

Additional Coursework:

If necessary to reach 12 units in the Concentration, choose from ASTR 100L, NSCI 309I, NSCI375I, or any additional class from any other of the options listed above

History/Social Science Concentration

Each student pursuing a History/Social Science Concentration will choose one of the following areas of emphasis: California Studies, United States Studies, or Global Studies. Within each area of emphasis, each student will take one course in each of the following areas: 1) Anthropological Perspectives, 2) Historical Perspectives, 2) Social and Cultural Perspectives, 3) Geographic Perspectives. No more than one lower-division class may be taken in the History/Social Science Concentration.

California Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from: AIS 490, ANTH 349, ASAM 200, 220, 335I, CHLS 300, HIST 370, 402, 462, 471, 482

Group 3: Social and Cultural Perspectives:

Choose one course from: AIS 335, ANTH 322, ASAM 330, 331, 332, 333, 334, CHLS 352/SOC 341, POSC 323, POSC 326

Group 4: Geographic Perspectives:

Choose one course from: GEOG 120, 304

United States Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from AIS 105, ANTH 347, ASAM 200, 220, 335I, B/ST 120, 190, 381, CHLS 300, 335I, 390I, ECON 360I, HIST 370, 372, 373, 376, 481, 485A

Group 3: Social and Cultural Perspectives:

Choose one course from AIS 335, ANTH 321, ANTH/W/ST 475, ASAM 330, 331, 332, 333, 334, 340, 345, 346, 347, 352, 370, 380, 381, B/ST 353, 400, 410, 420, 423, 424, CHLS 310, 340, 350, 415, ECON 300, HIST 381, 469, 471, 474I, 477A/B, 485B, 486, LING 470, POSC 323, 395I, 420, 423, 424, SOC 320, 325, 340, 345, 346, 423, 466, SW 423, W/ST 102, 308, 315, 318I, 325, 381, 420, 430, 485B.

Group 4: Geographic Perspectives:

Choose one course from GEOG 120, 306, 401, 466

Global Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from: ANTH 307I, ANTH 345, A/ST 300I, A/ST 301I, B/ST 200, 304, 430, 498, ECON 361I, 368, GEOG 307I, HIST 211, 304, 362, 364, 382A, 382B, 383A, 383B, 385, 386, 391, 392, 396, 431, 432, 492, POSC 401, W/ST 402

Group 3: Social and Cultural Perspectives:

Choose one course from: ANTH 314, 323, 332, 335, 351, A/ST 320, 393I, 495I, B/ST 337, 404, 460, CHIN 250, ECON 306I, HIST 406B, 466C, POSC 220, 371, 388I, 395I, SOC 350, 466, 494, W/ST 401I, 406, 410, 432

Group 4: Geographic Perspectives:

Choose one course from: GEOG 150, 160, 308I, 309I, 314I, 316, 320I, 455, 460, I/ST 319I, 355, POSC 358, 359, 362, 363, 366, 367

Credential Coursework in ITEP

(Minimum 26 units)

1. Teaching Reading and Language Arts: EDEL 453A, 453B, 453C
2. Teaching Mathematics in Diverse Classrooms: EDEL 462
3. Teaching Social Studies in Diverse Classrooms: EDEL 471, 473A-ITEP
4. Teaching Science in Diverse Classrooms: EDEL 475
5. Student Teaching in Diverse Classrooms: EDEL 482D

TRACK I (code L/STBA01)

The minimum unit requirement for the Liberal Studies major, Track I, is 117 units which includes both Core and Concentration. The Track I program is both a major and an approved General Education program. This means that both General Education and major requirements are satisfied by completion of the Track I program.

The Track I Core consists of a minimum of 102 units distributed across six areas: I. Language Studies (minimum 22 units); II. Mathematics (minimum 9 units); III. Natural Sciences (minimum 14 units); IV. History and Social Sciences (minimum 24 units); V. Arts and Humanities (minimum 15 units) and VI. Learning and Well-Being (minimum 18 units). No course in the Track I core may be taken credit-no credit.

The Track I Concentration consists of 12-16 units of integrated course work with advisor approval. Only one lower-division course may be used to satisfy concentration requirements, except in the Natural Science concentration. No course in the Track I concentration may be taken credit-no credit, and no course used to meet Core requirements may be counted toward the concentration.

In addition 120 hours of approved service-learning in an elementary or middle school must be completed prior to graduation as a means to 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 promotion of individual civic responsibility.

Requirements

Service Learning

The way to earn the required 120 hours of Service Learning is participation in the SERVE (Service Experience for Revitalizing Education) 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 (LIB E 127) or SERVE office (ED1 168).

Track I Core

A minimum of 102 units distributed as specified in Areas I, II, III, IV, V and VI. No core classes may be taken credit-no-credit

Area I: Language Studies (minimum 22 units)

Group 1. Composition in English:

- a) Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100;
- b) ENGL 309

Group 2. Oral Communication in English:

Choose one course from COMM 130, 335

Group 3. Literature in English:

- a) Choose one course from C/LT 100, ENGL 180, 250A, 250B, 270A, 270B;
- b) Choose one course from ENGL 481, COMM 352

Group 4. Language Acquisition: Choose one from either a) or b):

- a) C/D 329, EDP 454, LING 329;

b) CHIN 201, 202, FREN 201A, 201B, GERM 201A, 201B, ITAL 201A, 201B, JAPN 201, 202, RUSS 201A, 201B, SPAN 201A, 201B (Students with more advanced language competencies substitute appropriate higher level language courses for those listed here.)

Group 5. Integration and Assessment: C/LA 400

Area II: Mathematics (minimum 9 units)

Group 1. Real Numbers: MTED 110

Group 2. Higher Math:

Choose one course from MTED 211*

(*Students who choose a Math Concentration must take MTED 312 instead of MTED 211.)

Group 3. Integration and Assessment. MTED 402

Area III: Natural Sciences (minimum 14 units)

Group 1. Life Science: BIOL 200

Group 2. Physical Science: PHSC 112

Group 3. Earth Science: GEOL 102 + 104

Group 4. Integration and Assessment: SCED 401

Area IV: History and Social Sciences (minimum 24 units)

A. American History, Culture, Society

Group 1. U.S. History:

a) Choose one course from HIST 172, 300;

b) HIST 473

Group 2. American Institutions:

Choose one course from POSC 100, 391, *326

(*POSC 326 is limited to and only required of students who have met the U.S. Constitution/Government 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. Multicultural Dimensions:

Choose one course from AIS 319, ANTH 421/LING 425, ASAM 319, B/ST 319, CHLS 319, W/ST 319

B. World History, Culture, Society

Group 1. Geography:

Choose one course from GEOG 100, 100W

Group 2. World History:

Choose one course from HIST 211, 212

Group 3. Cultural Anthropology:

Choose one course from ANTH 120, 314, 412I

Group 4. Integration and Assessment: C/LA 403

Area V: Arts and Humanities (minimum 15 units)

A. Visual and Performing Arts

Group 1. Visual Art and Music:

a) ART 300;

b) MUS 180

Group 2. Dance or Theatre:

Choose one course from C/LT 124, 324I, DANC 110, THEA 113, 122, 124, 324I

B. Humanities

Group 1. Ethics, Values and Beliefs:

Choose one course from PHIL 100, 160, 160W, 203, 204, 305, R/ST 100, 202, 485

Group 2. Integration and Assessment: L/ST 404

Area VI: Learning and Well-Being (minimum 18 units)

Group 1. Growth and Development:

a) PSY 100;

b) Choose one course from EDP 301, HDEV 307I, PSY 361

Group 2. Health and Well-Being:

a) HSC 411A;

b) KPE 476

Group 3. Access to Learning:

a) Choose one course from: A/ST 190, ENGL 102, HIST 101, PHIL 170, PSY 130, COMM 131 + 131W, *UHP 100

(*UHP 100 is limited to students in the University Honors Program);

b) Choose one course from ENGL 337, ETEC 444, MTED 301

Track I Concentration

A minimum of 12 units with advisor approval, at least 9 of which must be at the upper-division (300-400) level (with the exception of the Natural Science concentration) in one of the thematic programs of study identified below. 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.

Students must gain approval for a concentration and curricular plan. Normally the proposal is submitted before the student begins to take courses in the concentration. The proposal may be made in writing, or may be brought directly to a faculty advisor for approval. Subsequent modifications of the concentration curriculum must also be approved.

Bilingual Spanish-English

Subject preparation for a Multiple Subject Credential with a bilingual, cross-cultural, language and academic development (BCLAD) emphasis requires students to demonstrate proficiency in a targeted language and understanding of the culture of a targeted group. This concentration focuses on the Spanish language and Latino culture to be consistent with the requirements of the BCLAD emphasis in the CSULB credential program. The primary focus of the concentration is development of language skills. Students with demonstrated language proficiencies in reading, writing and speaking at an advanced level may seek to substitute additional culture studies for required language classes. Prior to proposing this concentration or completing any course work toward it, students should meet with the Spanish undergraduate advisor who will be able to determine language proficiencies. (The following Core classes are highly recommended for students proposing this concentration: CHLS 319 in Area IV, A, Group 3; ANTH 412I in Area IV, B, Group 3; EDP 301 in Area IV, Group 1b.)

Complete 15 units from:

Area 1. Language Foundations (9 units):

SPAN 312, 313, 322

Area 2. Literary Analysis (3 units): SPAN 310

Area 3. Culture Study (3 units):

Choose from CHLS 340, CHLS 350/SOC 340

Cultures, Values and Beliefs

Focus is on humanistic study of cultural traditions, both Western and non-Western, and the values and beliefs that have shaped them. Insight will be gained into motivating and orienting ideas that have given meaning to individual lives and structured human relationships. Special attention is given to religious, philosophical and ethical perspectives. (No course used to meet requirements of the core may be used to meet the requirements of the concentration; no more than 3 units of lower division (100-200) course work may apply toward the concentration.)

Complete 15 units from:

Area 1. Western Culture (3 units):

Choose from CLSC 310I, C/LT 310I, 414I, HIST 310I, 323I, 335, 337, 339, 400I, 414I, 477A, 477B

Area 2. Non-Western Cultures (3 units):

Choose from ANTH 321, 323, 324, 332, 333, 335, A/ST 300I, 301I, 393I, 495I, HIST 382A, 382B, 383A, 383B, 385, 431, 441, 461, RUSS 410I

Area 3. Values and Beliefs/Western (3 units):

Choose from HIST 371, PHIL 100, 203, 204, 330, 342, 352, 361, R/ST 102, 383I, 391I, 425I, 482I, 485

Area 4. Values and Beliefs/Non-Western (3 units):

Choose from AIS 335, ASAM 380, B/ST 353, PHIL 306, 307, R/ST 103, 331I, 341I, 343, 344, 351

Area 5. Ethical Values (3 units):

Choose from MICR 302I, PHIL 160, 160W, 363, R/ST 302I

Health, Physical Education and Life Management

Provides students with a breadth and depth of knowledge, attitudes and behaviors that prepares them in the areas of health, physical education and fitness, mental health, family life and nutrition. The areas of emphasis include substance use and abuse, family life/health and sexuality education, nutrition, violence prevention (including child abuse and suicide prevention), physical activity and fitness, motor skills and stress management. (Credit in the concentration will be granted for either HSC 425I or FCS 419, but not both.)

Complete 15 units from:

Area 1. Health (3 units):

Choose from HSC 421, 423, 425I, 427

Area 2. Physical Education (3 units): KPE 477

Area 3. Life Management Skills (3 units):

Choose from FCS 132, 319, 419, REC 371

Area 4. Additional Selected Study (6 units):

Choose from those listed in Areas 1 and 3 not completed.

Historical Perspectives

Prepares students in the subjects identified in the History-Social Science Framework for California Public Schools which provides the rationale and coherence for this course work. Emphasis is upon historical perspective not only in terms of Western/American tradition, but also in terms of other world societies and peoples. (The following core courses are recommended for students choosing this concentration: HIST 111 in Area IV, B, Group 2; ANTH 314 in Area IV, B, Group 3 and AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3.)

Complete 15 units from:

Area 1. Peoples of the World (3 units):

Choose from ANTH 321, 323, 324, 332, 333, 335, GEOG 309I, 316, 318, 320I, 326

Area 2. Ancient World Civilizations (3 units):

Choose from ANTH 313, 345, 347, A/ST 300I, HIST 313, 314, 316, 382A, POSC 301

Area 3. U.S. Emerges as a Nation (3 units):

Choose from HIST 372, 375, 477A, 485A, W/ST 485A

Area 4. California (3 units):

Choose from ANTH 322, 349, CHLS 300, GEOG 304, HIST 370, POSC 326

Area 5. American Society Today (3 units):

GEOG 306, 466, HIST 380, 474I, W/ST 307I

History/Social Science

In addition to deepening their knowledge of specific subjects in this area of study, students with a concentration in History/Social Science will be exposed to the specific modes of inquiry characteristic of such disciplines as history, anthropology and geography. Each student pursuing a History/Social Science Concentration will choose one of the following areas of emphasis: California Studies, United States Studies, or Global Studies. California Studies is most appropriate for 4th grade teaching, United States Studies for 5th or 8th grade teaching, and Global Studies for 6th grade teaching. Within each area of emphasis, each student will take one course in each of the following areas: 1) Anthropological Perspectives, 2) Historical Perspectives, 3) Social and Cultural Perspectives, 4) Geographic Perspectives.

Complete 12 units from:

California Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from AIS 490, ANTH 349, ASAM 200, 220, 335I, C/LA 485, CHLS 300, 335I, HIST 370, 402, 462, 471, 482

Group 3: Social and Cultural Perspectives:

AIS 335, ANTH 322, ASAM 330, 331, 332, 333, 334, CHLS 352/SOC 341, POSC 323, POSC 326

Group 4: Geographic Perspectives: GEOG 120, 304

United States Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from AIS 105, ANTH 347, ASAM 200, 220, 335I, B/ST 120, 190, 381, CHLS 300, 335I, 390I, ECON 360I, HIST 370, 372, 373, 376, 481, 485A, W/ST 485A

Group 3: Social and Cultural Perspectives:

Choose one course from AIS 335, ANTH 321, ANTH/W/ST 475, ASAM 330, 331, 332, 333, 334, 340, 345, 346, 347, 352, 370, 380, 381, B/ST 353, 400, 410, 420, 423, 424, CHLS 310, 340, 350, 415, ECON 300, HIST 381, 469, 471, 474I, 485B, 486, LING 470 POSC 323, 395I, 420, 423, 424, SOC 320, 325, 340, 345, 346, 423, 466, SW 423, W/ST 102, 308, 315, 318I, 320, 325, 381, 485B, 420, 430

Group 4: Geographic Perspectives:

Choose one course from GEOG 120, 306, 401, 466, U/ST 301I

Global Studies

Group 1: Anthropological Perspectives:

Choose one course from: ANTH 412I, ANTH 421/LING 425

Group 2: Historical Perspectives:

Choose one course from ANTH 307I, ANTH 345, A/ST 300I, A/ST 301I, B/ST 200, 304, 430, 498, ECON 361I, 368, GEOG 307I, HIST 211, 304, 362, 364, 382A, 382B, 383A, 383B, 385, 386, 391, 392, 396, 431, 432, 492, POSC 401, W/ST 402

Group 3: Social and Cultural Perspectives:

ANTH 314, 323, 332, 335, 351, A/ST 320, 393I, 495I, B/ST 337, 404, 460, CHIN 250, ECON 306I, HIST 406B, 466C, POSC 220, 371, 388I, 395I, SOC 350, 466, 494, W/ST 401I, 406, 410, 432

Group 4:

GEOG 150, 160, 308I, 309I, 314I, 316, 319, 320I, 355, 455, 460, I/ST 319I, 355, POSC 358, 359, 362, 363, 366, 367

Human Behavior

Provides an understanding of basic principles underlying human behavior. Why do people interpret, believe, feel, think and act as they do? Basic issues include: How people process information and how they organize what they learn into knowledge structures; processes in social learning; how people influence other people and individual differences in ability and personality that affect behavior. These principles will be applied to specific issues in courses selected from a broad range of disciplines. (Credit in the concentration will be granted for either PSY 351 or SOC 335I, but not for both.)

Complete 15 units from:

Area 1. Basic Principles (6 units):

Choose from ANTH 311I, PSY 351, 356, 370, SOC 100, 335I

Area 2. Application/Race and Ethnicity (3 units):

Choose from ANTH 419, ASAM 340, B/ST 310, 325, 410

Area 3. Application/Gender Roles (3 units):

Choose from ANTH 351, FCS 358, HIST 309I, PSY 352, 354, 366, SOC 325, W/ST 314, 325, 420

Area 4. Application/Social Environments (3 units):

Choose from ANTH 436, ECON 309I, FCS 309I, 410, FIN 309I, HSC 421, POSC 428, PSY 381, SOC 320, 336

Human/Child Development

Provides students with a background in the developmental issues of children, adolescents and adults within a family and social context. Specific areas focus on the intellectual and socio-emotional development of individuals from birth through aging and the effects of the near environment on their development. Factors which effect individual variability in growth and development such as gender, family, racial, ethnic and cultural differences will be explored. (The following core courses are REQUIRED for students selecting this concentration: AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3 and ANTH 120 in Area IV, B, Group 3.)

Complete 15 units from:

Area 1. Intellectual and Social Development (3 units):

Choose from EDP 305, FCS 314, PSY 463

Area 2. Adult Development (3 units):

Choose from GERN 400I, HDEV 357I, PSY 365, SOC 464

Area 3. The Child in the Family (3 units):

Choose from ASAM 340, B/ST 410, FCS 319, 412, 413

Area 4. Social Ecology of Child Development (6 units):

Choose from B/ST 420, CHLS 350/SOC 340, EDP 302, 350, 485/LING 485, FCS 411, 430, HDEV 360, NRSOG 481I, SOC 345, SOC/SW 423

Language Arts

Provides students with special appreciation for languages, literatures, and their relation to culture through study in three areas: Language perspectives, which involves the study of languages (and/or language) and their relationships to literary and cultural patterns; theory and/or criticism which provides the theoretical tools for the analysis and explanation of those relationships and language process which involves additional practice in the creative and technical aspects of producing linguistic products. (The following core classes are highly recommended for students selecting this concentration: COMM 335 in Area I, Group 2; ANTH 412I in Area IV, B, Group 3; PHIL 100, 160, 203, 204 or 305 in Area V, B, Group 1 and ENGL 200 in Area VI, Group 3a. No more than 3 units of lower division (100-200) course work may apply toward the concentration.)

Complete 15 units from:

Area 1. Language and Culture (3 units):

Choose from ANTH 413, 475, B/ST 180, ENGL 423, 426, LING 413, 423, 426, 363I, 470, COMM 309, 330, W/ST 475

Area 2. Language and Literature (3 units):

Choose from AIS 340, A/ST 320, B/ST 140, 343, CHIN 370, CLSC 191, C/LT 403, 404, 410, 440, 453, ENGL 382, 431, FREN 335, 336, GERM 315, 316, JAPN 370, RUSS 310, SPAN 330, 341, W/ST 382

Area 3. Language/Theory and Criticism (3 units):

Choose from C/LT 361, ENGL 318I, 384, 410, 484, PHIL 361, 484, R/ST 301, FEA 318I, COMM 300, 301, 306, 333, THEA 426

Area 4. Language and Process (3 units):

Choose from B/ST 450, ENGL 205, 206, 317, 405, 406, 417, COMM 331, 358, THEA 380

Area 5. Additional Selected Study (3 units):

Choose from ENGL 375, LING 472, COMM 355

Language and Literacy

Students in the Language and Literacy concentration develop their knowledge of and appreciation for Literature while also engaging enhancing their ability to deal with literacy education through additional study of linguistics and culture.

Complete 12 units from:

Group 1. Exploring Literature:

Choose two courses from AIS 340, ASAM 260, 360, B/ST 340, 343, 346, CHIN 370, CHLS 205, C/LT 100, 415I,

ENGL 180, 250A, 250B, 270A, 270B, 363, 375, 382, 385, 386, 482, JAPN 370, W/ST 382

Group 2. Sociolinguistics and Schooling: LING/EDEL 379

Group 3. Language, Literacy and Culture:

Choose one course from: ANTH 413, 475, COMM 309, 330, 355, EDEL 430, 439, EDP 432, 439, 485, EDSE 439, ENGL 300, 327, 410, 435, 436, LING 327, 413, 470, 485, 486, W/ST 475.

Language Other Than English

Provides opportunity for students to gain access to advanced preparation in reading, writing and speaking a selected language other than English. Provides insights into second language acquisition and the intimate relationships linking language, cognition and culture. Students select one language in which to complete the following requirements:

Complete 15 units from:

Area 1. Advanced Language Study (6 units):

Choose from CHIN 301, 302, FREN 312A, 312B, GERM 301, 302, ITAL 312A, 312B, JAPN 301, 302, RUSS 312, 399, SPAN 312, 313

Area 2. Conversation (3 units):

Choose from CHIN 490, FREN 214, GERM 305, ITAL 214, JAPN 311, RUSS 314, SPAN 314

Area 3. Literature (3 units):

Choose from CHIN 370, FREN 335, 336, GERM 315, 316, ITAL 490, JAPN 471, RUSS 310, SPAN 330, 341

Area 4. Additional Study (3 units):

Choose from CHIN 490, FREN 314, 411, 414, GERM 303, 401, ITAL 314, 490, JAPN 312, 350, 461, RUSS 499, SPAN 322

Mathematics

Provides advanced study of mathematics consistent with the philosophy of the California Framework in Mathematics and Standards of the National Council of Teachers of Mathematics for the mathematics content taught through the middle grades. (The following core courses are REQUIRED for students choosing this concentration: MTED 312 in Area II, Group 2; MTED 301 in Area VI, Group 3b.) Students choosing the Mathematics Concentration must complete MTED 312 with a "C" or better grade prior to registering for MTED 402.

Complete 12 units from:

Group 1. Probability and Activities-Based Statistics: MTED 105 (must be completed prior to enrollment in MTED 402)

Group 2. History of Mathematics: MTED 315

Group 3. Number Theory and Algebraic Structures: MTED 320

Group 4. Functions, Models and Concepts of Calculus: MTED 325

Natural Science

The two pathways in the Natural Science concentration provide students with fundamental skills and abilities to deal confidently with a wide variety of scientific viewpoints applied to various important issues, as well as concrete and significant examples of scientific thinking. Pathway A is a "breadth" pathway which is particularly appropriate for future K-5 teachers. In

Pathway A students choose at least one course from three different groups. Pathway B is a "depth" pathway which is particularly appropriate for future teachers of grade 6-8 as well as for students who prefer a stronger emphasis on investigation and experimentation. In Pathway B students choose at least three courses from a single group.

Complete 12 units from:

Pathway A – Breadth – Choose coursework from EACH of the following groups:

Group 1. Earth Science:

Choose one course from: GEOL 160, 190, 240, 300I

Group 2. Life Science:

Choose one course from: BIOL 100, 153, MICR 101, 300I

Group 3. Physical Science:

Choose one course from: ASTR 100, CHEM 100, 111A, PHYS 100A

Group 4. Additional Coursework:

If necessary to reach 12 units in the Concentration, choose from GEOL 105, ASTR 100L, NSCI 309I, NSCI 375I or any additional class from those listed above.

Pathway B: Depth – Choose an option and take three courses in that option:

Earth Science Option:

Choose three courses from: GEOL 160, 163, 190, 240, 300I, 341, GEOL/BIOL 303

Life Science Option:

Choose three courses from: BIOL 100, 153, GEOL/BIOL 303, MICR 101, 300I

Physical Science Option:

Choose three courses from: ASTR 100, CHEM 100, 111A, 111B, 202, 302, PHYS 100A, 100B

Additional Coursework:

If necessary to reach 12 units in the Concentration, choose from ASTR 100L; NSCI 309I, 375I, or any additional class from any other of the options listed above.

U.S. Multicultural Studies

Students should learn from their earliest school years that our nation is composed of people whose backgrounds are rooted in cultures from around the world, and they should develop respect for the dignity of all people and ways of life. This concentration will help potential teachers to recognize that the history of community, state, region and nation must reflect the experience of men and women of different racial, religious and ethnic groups in our pluralistic society. (The following core course is REQUIRED for students choosing this concentration: AIS, ASAM, B/ST, CHLS or W/ST 319 in Area IV, A, Group 3. Courses selected should include all four major U.S. ethnic groups. No more than 3 units of lower division (100-200) course work may apply toward the concentration and no course used to satisfy a core requirement may be used to satisfy a concentration requirement.)

Complete 15 units from:

Area 1. Education in an Ethnic Perspective (3 units):

Choose from AIS 361, ASAM 310, B/ST 420, CHLS 340

Area 2. Multicultural Perspectives (3 units):

Choose from ANTH 412I, 421/LING 425, EDP 432/EDEL 430, FCS 336, HDEV 360, COMM 330, W/ST 401I

Area 3. Ethnic Studies (9 units):

No more than one course may be selected from 100-200 level courses and from any one department (courses cross-listed with CHLS will be considered CHLS department courses in this context). Choose from AIS 105, 106, 200, 320, 340, 420, ASAM 220, 340, 345, 370, 380, B/ST 110, 180, 370, 400, 410, CHLS 300/HIST 370, CHLS 310, CHLS 350/SOC 340, CHLS 352/SOC 341, CHLS 390I

Visual and Performing Arts

Allows students to develop skills in responding to the arts as well as in creating and performing. Courses will examine the history of traditional Western fine arts as well as the role the arts play in another cultural tradition. All four components of the California Framework for the Visual and Performing Arts are addressed: Aesthetic perception, creative expression, arts heritage and aesthetic valuing.

Complete 15 units from:

Area 1. Perception, Expression, Heritage, Valuing (6 units):

ART 302 (Course no longer offered. See Liberal Studies director for substitution.), MUS 385

Area 2. Fine Arts History (6 units):

If a Theatre course was taken in the Core, include at least one Dance course here. Choose from AH 401, 408, 409, 410, 416, 417, 423, 424, 425, 426, 427, 436, 437, C/LT 422I, DANC 110, 435I, MUS 363I, 364I, 393

Area 3. Multicultural and Ethnic Arts (3 units):

Choose from AIS 320, 420, AH 455, 456, 457, 466, 467, 468, 469, 470A/B, B/ST 346, 363, MUS 490

TRACK II (code L/STBA02)

Students in this track complete a Core program (87 units minimum) and a Concentration (24-32 units). The Track II program is both a major and an approved General Education program. This means that both General Education and major requirements are satisfied by completion of the Track II program. A minimum of six units of interdisciplinary course work (courses with an I suffix) must be completed in the major—in either the core, the concentration or a combination of both. Course work used to meet the specific requirements of the core may also be used to meet the specific requirements of a concentration to a maximum of 12 units of such "double counting" or "overlapping." (Although one course may satisfy two requirements at the same time, the units earned apply to the total units required for the degree only once.) Minimum units for the Liberal Studies major, Track II, could vary from 99-119 units depending on choice of concentration and potential for overlapping core and concentration requirements.

The Track II Core consists of a minimum of 87 units distributed across seven areas: I. Language and Communication Studies (minimum 18 units); II. Natural Science and Mathematics (minimum 18 units); III. National and World Citizenship (minimum 18 units); IV. Social and Behavioral Science Foundations (minimum 9 units); V. Literary, Visual and Performing Arts (minimum 12 units); VI. Cultures, Values and Beliefs (minimum 9 units) and VII. Health Well-Being, Life-Management: (minimum 3 units). Only one course per core area may be taken credit-no credit within university maxima of 24 units overall and 12 at the upper division (300-400) level.

The Track II Concentration consists of 24-32 units of course work in a selected discipline. A minimum of 15 of the concentration units will be in upper division (300-400) course work with the exception of the Biology and Mathematics concentrations where only 12 upper division units are required. Only one concentration course may be taken credit-no credit.

Requirements

Track II Core

A minimum of 87 units as specified in Areas I, II, III, IV, V, VI and VII. Only one course per core Area may be taken credit-no credit within university limitations of 24 overall, 12 at the upper division (300-400) level.

Area I: Language and Communication Studies (minimum 18 units)

Group 1. Composition in English:

- Choose one course from ASAM 100, B/ST 100, CHLS 104, ENGL 100;
- Choose one course from B/ST 450, ENGL 101, 205, 206, 300, 317, 407, 417, 418, THEA 380

Group 2. Oral Communication in English:

Choose one course from COMM 110, 130, 132, 331, 334, 335

Group 3. Language and Critical Thought:

Choose one course from A/ST 190, ENGL 102, HIST 101, PHIL 170, PSY 130, COMM 131 + 131W, *UHP 100 (*UHP 100 is limited to students in the University Honors Program)

Group 4. Language Study Other than English:

Complete a two semester sequence in one language from CHIN 101, 102, 201, 202, FREN 101A, B, 201A, B, GERM 101A, B, 201A, B, GK 101A, B, 301A, B, ITAL 101A, B, 201A, B, JAPN 101, 102, 201, 202, LAT 101A, B, 301A, B, RUSS 101A, B, 201A, B, SPAN 101A, B, 201A, B (This is not a proficiency requirement, but a requirement for one sequential year of language study beyond current level of mastery. Choose the language and level appropriate to prior preparation. If prepared for more advanced 300 level of study or higher, substitutions of higher level language courses for those above can be made.)

Area II: Natural Science and Mathematics (minimum of 18 units):

Group 1. Mathematics:

Choose two courses from MATH *103, 112, 114, 115, 117, 119A, 119B, 122, 123 (*MATH 103 is not open to students who have completed a higher math course or its equivalent.)

Group 2. Natural Sciences:

- Choose one course from BIOL 200, 205, 207, 211A;
- Choose one from ASTR 100+100L, CHEM 100, 111A, GEOL 102+104 or 105, PHYS 100A, 151, PHSC 112

Group 3. Additional Study in Science or Math:

Choose two courses, at least one of which is at the upper division (300-400) level, from any of the courses listed in Area II, Groups 1 and 2 not completed, or from ASTR 370I, BIOL 153, 211B, 303, 309I, 401, CHEM 111B, C/LA /HDEV 250, ET 202, GEOG 140, GEOL 160,160+160L, 163, 190, 191, 240, 303, MATH 180, 224, 233, 247, 310,

330, 340, 341, 355, 370A, 380, MICR 101, 300I, 302I, 303, NSCI 375I, 377, PHSC 331, PHYS 100B, 152, HIST 400I, PSY 110, 346I, SOC 255 (For upper division work special attention is directed to the range of Interdisciplinary (I) courses offered in the College of Natural Sciences and Mathematics; these are highly recommended.)

Area III: National and World Citizenship (minimum 18 units):

Group 1. Basic Studies:

- a) Choose one course from HIST 172, 173, 300;
- b) Choose one course from POSC 100, 391, *326 (POSC 326 is limited to students who have completed a U.S. Government course in a state other than California or have Advanced Placement Credit in U.S. Government and must meet Title V state and local government requirements);
- c) Choose one course from ECON 300, 368

Group 2. U.S. Diversity:

Choose one course from: AIS 319, ANTH 329, 419, ASAM 200, 319, B/ST 210, 319, 325, CHLS 319, 350, 352, POSC 323, SOC 340, 341, 346, W/ST 319

Group 3: National Citizenship:

Choose one course from B/ST 381, C/LA 492A, EDP 492, GEOG 301I, HIST 474I, 480, LING 472, POSC 210, 308, 327, 328, 420, 423, 424, 482, 486, PSY 375I, SOC 449I, COMM 441I, 442I, U/ST 301I

Group 4. World Citizenship:

Choose one course from ANTH 307I, 314, ECON 306I, GEOG 307I, 470, 478, I/ST 478, PHIL 351, POSC 215, 220, 306, 353, 371, 485, SOC 350

Area IV: Social and Behavioral Science Foundations (minimum 9 units)

Group 1. Psychology/Sociology:

Choose one course from PSY 100, SOC 100, 142

Group 2. Geography/Cultural Anthropology:

Choose one course from ANTH 120, GEOG 100, 100W, 160

Group 3. History:

Choose one course from HIST 211, 212, 131, 132

Area V: Literary, Visual and Performing Arts (minimum 12 units)

Group 1. Visual and Performing Arts:

Choose two courses from two different arts from AIS 320, ART 110, AH 113A, 113B, 115B, 115C, B/ST 155, 160, 363, CLSC 421I, DANC 110, 435I, MUS 190, 290, 363I, 364I, 490, THEA 113, 122, THEA/CLT 124, 324I

Group 2. Literature:

- a) Choose one course from B/ST 140, CHLS 150, C/LT 100, 334, 336, ENGL 180, 184, 250A, 250B;
- b) Choose one course from AIS 340, B/ST 343, 346, CHIN 370, C/LT 330A, 330B, 342, 346, 403, 404, 415I, 430, 440, ENGL 270A, 270B, 363, 375, 382, 385, 386, FREN 335, 336, GERM 315, 316, JAPN 370, JOUR 315, R/ST 425I, SPAN 330, 341, W/ST 382

Area VI: Cultures, Values and Beliefs (minimum 9 units)

Group 1. Western Tradition:

- Choose one course from either (a) or (b):
- a) CLSC 310I, C/LT/HIST 310I, 312I, 414I, HIST 335, 477A, 477B;

- b) HIST 371, PHIL 100, 160, 160W, 203, 204, 330, 352, 361, 363, R/ST 102, 383I, 482I

Group 2. Non-Western Traditions:

Choose one course from either (a) or (b):

- a) ANTH 321, 323, 324, 332, 333, 335, A/ST 300I, 301I, 393I, 495I, HIST 341A, 341B, 382A, 382B, 383A, 383B, 385, 386, 431;
- b) AIS 335, ASAM 380, B/ST 353, PHIL 306, 307, R/ST 103, 331I, 341I, 343, 344, 351

Group 3: Additional Study (3 units):

Choose another course from those listed in Group 1a, 1b, 2a, and 2b not completed.

Area VII: Health, Well-Being and Life Management (minimum 3 units)

Choose one course from ANTH 150, ECON 309I, EDP 191, 357, FCS 132, 309I, 312I, FIN 309I, HSC 210, 420I, 421, 422, 423, 425I, 427, 429, HDEV 307I, 357I, KPE 157, NRSG 481I, REC 220, 340I, SW 330, 331, SOC 461I, 462, 463, W/ST 101, 440

Track II Concentration

A minimum of 24 units of which 15 must be at the upper division (300-400) level (with the exception of Biology and Mathematics where only 12 units at the upper division are required) from one of the disciplinary programs below. A maximum of 12 units of course work used to meet requirements of the core may be used to satisfy the requirements of the concentration. In such "double-counting," one course may satisfy two requirements but the units apply to total degree requirements only once. Unit requirements in some concentrations exceed the 24 unit minimum; no concentration requires more than 32 units. Only one course in a concentration may be taken credit-no credit.

American Indian Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (6 units):

Choose from AIS 105, 106, 200

Area 2. Selected Area Study (12 units):

Choose from AIS 320, 335, 340, 361, 420, 490, 497, 499

Area 3. Additional Support and Area Study (6 units):

Choose from courses in Areas 1 and 2 not completed or from: ANTH 321, 322, 347, 349, AH 456, 457, CHLS 420, HIST 372

American Studies

Inactive, no new students admitted.

Anthropology

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (6 units) :

ANTH 110, 120

Area 2. Additional Lower Division Study (3 units):

Choose from ANTH 140, 170

Area 3. Upper Division Foundation Study (6 units):

ANTH 313, 314

Area 4. Biological Anthropology (3 units):

Choose from ANTH 318, 363, 435

Area 5. Sociocultural Anthropology (3 units):

Choose from ANTH 351, 413, 416, 421, 436

Area 6. Comparative Cultures (3 units):

Choose from ANTH 321, 322, 323, 324, 332, 333, 335, 345, 347, 349

Art/Art History

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units):

Choose three courses from AH 113A, 113B, 115B, 115C

Area 2. Principles and Practices (3 units):

Choose from AH 307, 308, 309; ART 435

Area 3. Western Art (3 units):

Choose from AH 401, 408, 409, 410, 416, 417, 423, 424, 425, 426, 427, 436, 437, 438, 439

Area 4. Non-Western Art (3 units):

Choose from AH 455, 456, 457, 465, 466, 467, 468, 469, 470A/B

Area 5. Additional Upper Division Study (6 units):

Choose from courses listed in Areas 3 and 4 not completed.

Art/Studio

Special admissions deadlines apply.

Complete a minimum of 27 units with 12 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units):

ART 131, 181, 182, 187

Area 2. Art History (3 units):

Choose from AH 437, 438, 439

Area 3. Selected Upper Division Study (12 units):

Choose from ART 316, 317, 328A, 328B, 354A, 354B, 355A, 357A, 357B, 370, 376, 378, 379, 381, 385, 387, 428A

Asian American Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (6 units):

ASAM 200, 220

Area 2. Upper Division Foundation Study (7 units):

ASAM 345, 380

Area 3. Additional Selected Study (11 unit minimum):

Choose from ASAM 310, 330, 340, 370 490, 499

Biology

Complete a minimum of 32 units with 12 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (20 units):

BIOL 211A, 211B, CHEM 111A, 111B

Area 2. Selected Upper Division Study (12 units minimum):

Choose from BIOL 313, 316, 324, 328, 332, 351, 413, 421, 423, 424, 425, 427, 439, 453, 490, 490L, 496

Black Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Introduction (3 units): B/ST 110

Area 2. History (3 units): Choose from B/ST 120, 121

Area 3. Selected Lower Division Study (3 units):

Choose from B/ST 155, 160, 200, 210

Area 4. Humanities (6 units):

Choose from B/ST 340, 343, 346, 450

Area 5. Social Studies (9 units):

Choose from B/ST 304, 325, 330, 332, 335, 337, 400, 410

Chicano-Latino Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (9 units):

Choose from CHLS 100, 101, 150, 230

Area 2. Upper Division Foundation Study (9 units):

CHLS 300/HIST 470, 310, 350/SOC 340

Area 3. Culture Study (3 units):

Choose from CHLS 390I, 395, 420

Area 4. Social Inquiry (3 units):

Choose from CHLS 340, 352, 415, 421

Comparative Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study, Breadth (6 units):

Choose from C/LT 330A, 330B, 334

Area 2. Foundation Study, Depth (3 units):

Choose from C/LT 430, 449

Area 3. Genre Study (6 units):

Choose from , CLSC 421I, C/LT/THEA 124, C/LT 232, 320I, C/LT/THEA 324I, C/LT 346, 405, 453

Area 4. Comparative Literary Study (3 units):

Choose from C/LT 336, 403, 404, 440, 448, 452

Area 5. Literary Movements or Periods (3 units):

Choose from C/LT 349, 431, 432, 437, 438

Area 6. Literature and the Other Arts (3 units):

C/LT 250, C/LT/HIST 310I, C/LT 410, 412I, 451I

Economics

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (6 units):

ECON 100, 101

Area 2. Upper Division Foundation Study (6 units):

ECON 360I

Area 3. Additional Selected Study (12 units):

Choose additional upper division Economics classes exclusive of ECON 309I which may not be taken for concentration credit. (With Economics Department approval, ECON 300 and an additional upper division Economics course may be substituted for ECON 100 and 101.)

English/Creative Writing

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (8 units): ENGL 184, 370B

Area 2. Introductory Study (3 units):

Choose from ENGL 205, 206

Area 3. Advanced Study (6 units):

Choose from ENGL 405, 406, 407

Area 4. Additional Selected Study (7 units minimum):

Choose from ENGL 270A, 375, 384, 385, 386, 459, 467A, 467B, 469, 474, 475, 476, 477A, 477B, 479, THEA 380

English/Language and Composition

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (14 units):

ENGL 184, LING 325, 420, 421

Area 2. Literature (4 units):

Choose from ENGL 250A, 250B, 270A, 270B

Area 3. Additional Selected Study (6 units):

Choose from ENGL 300, 317, 410, ENGL/LING 423, 426

English/Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (8 units): ENGL 184, 363

Area 2. American Literature Survey (4 units):

Choose from ENGL 270A, 270B

Area 3. British Literature (3 units):

Choose from ENGL 451, 452, 453, 455, 456, 458, 459, 462, 463, 467A, 467B, 468

Area 4. American Literature (3 units):

Choose from ENGL 474, 475, 476, 477A, 477B, 478

Area 5. Additional Selected Study (minimum 6 units):

Choose additional courses from those listed in Areas 2, 3 and 4 above or from C/LT 330A, 330B, ENGL 250A, 250B, 375, 384, 469, 479, 481, 482

English/Technical Writing

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (7 units): ENGL 184, 317

Area 2. Report Forms (6 units):

Choose from ENGL 417, 418, 419

Area 3. Language Study (4 units): ENGL 320, LING 325

Area 4. Additional Selected Study (minimum 7 units):

Choose from AH 307, 309, ET 300, ENGL 384, 405, 406, 407, ENGL/LING 423, ENGL 491, FEA 303, 380, 404, HIST 400I, IS 301

French

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units):

FREN 312A, 312B, 314, 411

Area 2. Additional Selected Study (12 units):

Choose additional courses in French. Lower division (100-200) courses are only appropriate if taken prior to FREN 312A or its equivalent.

Geography

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation (9 units):

Choose from GEOG 100, 140, 160

Area 2. Methods and Techniques (3 units): GEOG 380

Area 3. Systematic Geography [6 units: 3 from a) and 3 from b)]:

a) Choose from GEOG 460, 466, 470;

b) Choose from GEOG 440, 442, 444, 452, 455, 460, 466, 470 [No course used to satisfy a) may be used to satisfy b).]

Area 4. Regional Geography [6 units: 3 from a) and 3 from b)]:

a) Choose from GEOG 304, 306;

b) Choose from GEOG 304, 306, 309I, 316, 318, 320I, 326 [No course used to satisfy a) may be used to satisfy b).]

German

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (15 units):

GERM 301, 302, 315, 316, 401

Area 2. Additional Selected Study (minimum 9 units):

Choose additional courses in German. Lower division (100-200) courses are only appropriate if taken prior to GERM 301 or its equivalent.

History

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (3 units): HIST 301

Area 2. Area Study (18 units):

Choose 6 units each from three different areas:

World Area: Choose from HIST 211, 212, 492;

European Area: Choose from HIST 131, 132, 313, 314, 316, 317, 318, 332, 333, 335, 336, 337, 339, 341A, 341B, 433, 437;

British Area: Choose from HIST 351, 353, 356, 357;

Latin American Area: Choose from HIST 362, 364, 462, 463;

United States Area: Choose from HIST 172, 173, 300, 371I, 372, 375, 376, 378, 379, 380, 469, 471, 472, 473, 474I, 477A, 477B, 478, 479, 480, 485A, 485B, 486, 489;

Asian Area: Choose from HIST 382A, 382B, 383A, 383B, 384, 385, 386, 406B, 407I, 488

Area 3. Additional Selected Study (3 units):

Choose an additional course from History Department offerings or from Area 2 courses not completed.

Human Development

Students choosing this concentration must complete the following courses in the core program: ANTH 120, BIOL 205 or 207, PSY 100, or complete them as prerequisite units to the concentration and elective units toward the degree.

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units):

HDEV 307I, 357I, 360, 402

Area 2. Foundation Methodologies (8 units):

HDEV/C/LA 250, HDEV 320

Area 3: Area Study (6 units):

Choose 6 units from one area:

Biological Foundations Area: Choose from ANTH 318, 319, BIOL 401, PSY 141;

Psychological Foundations Area: Choose from EDP 305, PSY 331, 332, 333, 336, 341, 351, 356, 370, 438, 463;

Sociocultural Foundations Area: Choose from ANTH 454, ASAM 340, B/ST 410, CHLS 350/SOC 340, FCS 312I, 412, 413, SOC 100, 320, 345, 464;

Child Development Area: Choose from FCS 311, 312I, 314, 411, 412, 413, 433;

Gerontology Area: Choose from BIOL 401, GERN 400I, SOC 464

Italian

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units): ITAL 312A, 312B, 314

Area 2. Additional Selected Study (15 units):

Choose additional courses in Italian. Lower division (100-200) courses are only appropriate if completed prior to ITAL 312A or its equivalent.

Japanese

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (12 units):

JAPN 301, 302, 311, 312

Area 2. Additional Selected Study (12 units):

Choose additional courses in Japanese. Lower division (100-200) courses are only appropriate if completed prior to JAPN 301 or its equivalent.

Latin American Studies

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:

Area 1. Language Study (8 units): SPAN 201A, 201B

Area 2. Discipline Emphasis (6 units):

Choose 6 units from one department, a minimum of 3 units to be at the upper division (300-400) level, from: ANTH 323, 324, 345, HIST 362, 364, POSC 358, 359, 461I*

(*Only those semesters when content emphasizes Latin American development.)

Area 3. Breadth Study (6 units):

Choose 3 units each from two additional departments and courses listed in Area 2 or from GEOG 320I

Area 4. Additional Selected Study (6 units):

Choose six additional units from courses listed in Area 2 and 3 or from: HIST 462, 463, SPAN 312, 313, 314, 341, 430, 441, 445, 491, 492

Mathematics

Complete a minimum of 27 units with 12 units at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (15 units):

MATH 122, 123, 224, 233

Area 2. Upper Division Foundation Study (6 units):

MATH 364A, 380

Area 3. Additional Selected Study (6 units):

Choose from MATH 310, 340, 341, 355, 361A, 381

Music

Students choosing this concentration must demonstrate piano proficiency equivalent to MUS 120B, voice proficiency equivalent to MUS 122A, instrument proficiency equivalent to MUS 125 or complete the equivalency courses as corequisite units to the concentration and elective units toward the degree.

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (7 units): MUS 300, 490

Area 2. Selected Historical Study (3 units):

Choose from MUS 363I, 364I, 393

Area 3. Additional Selected Study (minimum 14 units):

Choose from courses listed in Area 2 not completed or from MUS 300, MUS 460, 469, 492, 493, 495

Philosophy

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (6 units):

Choose from PHIL 342, 363, 382

Area 2. Historical Focus (3 units):

Choose from PHIL 413, 414, 421, 422, 423, 424

Area 3. Movements and Perspectives (3 units):

Choose from PHIL 416, 417, 418, 419

Area 4. Additional Selected Study (12 units):

Choose additional courses from Areas 1, 2 and 3 not completed or from other departmental offerings.

Psychology

Impacted Program. Special Admissions criteria apply.

Complete a minimum of 26 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (11 units):

PSY 100, 200, 110

Area 2. Basic Processes (3 units):

Choose from PSY 331, 332, 333, 336, 341, 342

Area 3. Personal and Social Processes (3 units):

Choose from PSY 351, 356, 361, 365

Area 4. Additional Selected Process Study (3 units):

Choose from Area 2 and 3 classes not completed.

Area 5. Applications (3 units):

Choose from PSY 310, 314, 346I, 352, 354, 359, 366, 370, 375I, 378, 381

Area 6. Additional Selected Study (3 units):

Choose an upper level (300-400) course from Areas 2, 3, and 5 not completed or from other departmental offerings.

Religious Studies

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (6 units):

Choose from R/ST 100, 103, 202

Area 2. Western Religious Traditions (3 units):

Choose from R/ST 311, 312I, 314, 315I, 322, 331I, 471I, 472I, 485, 490

Area 3. Eastern Religious Traditions (3 units): Choose from R/ST 341I, 343, 344, 351

Area 4. Selected Upper Division Study (6 units):

Choose from Areas 2 and 3 not completed or from R/ST 301, 302I, 375, 376I, 383I, 425I

Area 5. Additional Selected Study (6 units):

Choose from courses in Areas 1, 2, 3 and 4 not completed or from ASAM 380, C/LT 342, HIST 333, PHIL 330, R/ST 499

Russian

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units): RUSS 310, 312, 314

Area 2. Additional Selected Study (15 units):

Choose additional courses in Russian. Lower division courses are only appropriate if taken prior to RUSS 312 or its equivalent.

Sociology

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Foundation Study (9 units): SOC 100, 142, 335I

Area 2. Statistics (3-4 units): SOC 255

Area 3. Ethnic and Gender Issues (3 units):

Choose from SOC 325/W/ST 325, SOC 340/CHLS 350, SOC 346, 426

Area 4. Deviance and Social Control (3 units):

Choose from SOC 345, SOC/SW 423, SOC 440, 441I, 448

Area 5. Social Change and Global Issues (3 units):

Choose from SOC 350, 420, 427

Area 6. Additional Selected Study (3 units):

Choose an upper level (300-400) from Areas 3, 4, and 5 not completed or from other departmental offerings.

Spanish/Spanish American Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study (6 units): SPAN 312, 313

Area 2. Foundation Study (6 units): SPAN 341, 445

Area 3. Selected Literary Study (6 units):

Choose from SPAN 310, 441, 491

Area 4. Additional Selected Study (6 units):

Choose additional courses in Spanish. Lower division courses are only appropriate if completed prior to SPAN 312 or its equivalent.

Spanish/Spanish Linguistics and Culture

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study (6 units): SPAN 312, 313

Area 2. Foundation Study (6 units):

SPAN 425 (course no longer offered. See Concentration Advisor for substitution), 426

Area 3. Linguistics and Culture Selected Study (6 units):

Choose from SPAN 427, 430, 445

Area 4. Additional Selected Study (6 units):

Choose additional courses in Spanish. Lower division courses are only appropriate if completed prior to SPAN 312 or its equivalent.

Spanish/Spanish Literature

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Basic Language Study (6 units): SPAN 312, 313

Area 2. Foundation Study (6 units): SPAN 330, 430

Area 3. Selected Literary Study (6 units):

Choose from SPAN 310, 439, 491, 492

Area 4. Additional Selected Study (6 units):

Choose additional courses in Spanish. Lower division courses are only appropriate if completed prior to SPAN 312 or its equivalent.

Speech Communication

Complete a minimum of 24 units with 15 at the upper division (300-400) level from:

Area 1. Lower Division Foundation Study (9 units):

COMM 130, 131 + 131W, 110

Area 2. Upper Division Foundation Study (9 units):

COMM 300, 301, 309

Area 3. Selected Upper Division Study (3 units):

Choose from COMM 331, 335

Area 4. Communication Contexts and Strategies (3 units):

Choose from COMM 330, 412, 432, 436, 437.

Courses (L/ST)

Upper Division

404. Arts and Values (3)

Prerequisite: Limited to students in the Liberal Studies Major, Track 1, who have completed all Area V Core requirements with a "C" or better grade, or consent of Program Director. In a question-based format requiring integration of previous experience in the arts and humanities, students will explore the relationship between arts criticism and various broader values (historical, social, aesthetic, ethical). Typical questions to be addressed are: What establishes the parameters of arts criticism? How does a critic distinguish art from non-art, good art from bad? Who should criticize? What is the relationship between criticism and censorship? What shapes people's values in the arts? Competency in the arts will be assessed as the impact of religion, Enlightenment philosophy, modernism and multiculturalism on the arts and values and their relation to arts education are explored. Letter grade only (A-F).

MECHANICAL AND AEROSPACE ENGINEERING

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<http://www.me.csulb.edu>

Faculty

Professors

Hsun Hu Chen

Hsin-Piao Chen

Mihir K. Das

Simon deSoto (Emeritus, 2002)

Ramin Esfandiari

C. Barclay Gilpin (Emeritus, 1998)

Karl-Heinrich Grote

Hamid Hefazi

Min-Ten Jahn

Ernest R. Mijares

Ortwin Ohtmer

Leonardo Pérez y Pérez

Hamid R. Rahai

Reza Toossi

Jalal Torabzadeh

Bruce J. Torby (Emeritus, 2000)

Hillar Unt (Emeritus, 1998)

Hung V. Vu

Hsien-Yang Yeh

Undergraduate Advisors

Jalal Torabzadeh (ME)

Hsun Hu Chen (AE)

General Education Advisors

Jalal Torabzadeh (ME)

Hsun Hu Chen (AE)

Graduate Advisors

Hamid Rahai (ME)

Hsin-Piao Chen (AE)

Administrative Support Coordinator

Leanne Hayes

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog." Get the latest information on the MAE Department on-line at www.me.csulb.edu.

The Mechanical and Aerospace Engineering Department at California State University, Long Beach, offers a variety of programs to meet societal needs. At the undergraduate level the following programs are offered: Bachelor of Science in Aerospace Engineering (BSAE); Bachelor of Science in Mechanical Engineering (BSME); Bachelor of Science in Engineering (BSE) with options in Materials Engineering or Industrial-Management Engineering.

At the graduate level the following degree programs are offered: Master of Science in Aerospace Engineering (MSAE); Master of Science in Mechanical Engineering (MSME); Master of Science in Engineering (MSE) with an emphasis on Management Engineering, Systems Engineering, or a specialized interdisciplinary area meeting students' needs; and the Ph.D. in Engineering and Industrial Applied Mathematics (offered jointly with the Claremont Graduate University). Additionally, the following post-baccalaureate certificate programs are offered: Certificate in Aerospace Manufacturing; Certificate in Heating, Ventilating, and Air-Conditioning (HVAC); Certificate in Industrial Plastics Processing and Design; and Certificate in Energy Conversion and Power Systems Engineering.

MECHANICAL ENGINEERING PROGRAM

Undergraduate Program Goal and Educational Objectives

The goal of the Mechanical Engineering program at the undergraduate level is to graduate well-prepared entry-level professionals with an excellent education in the fundamentals of engineering sciences and design, and to provide them with the ability to apply their knowledge to translate ideas and plans into working engineering systems. This goal is achieved through the following educational objectives:

- Providing students to enter the profession of Mechanical Engineering, to pursue graduate studies, to commit to lifelong learning, and to continuing self-development.
- Providing students with a solid foundation in the areas of mathematics, basic sciences, computational skills, and a broad range of engineering sciences that are required for a contemporary mechanical engineer entering the profession.
- Training students thoroughly in methods of analysis, including the use of appropriate computer application software and other tools essential to develop engineering problem solving skills.
- Providing students with hands-on experience in planning, conducting, and analyzing results; and submitting formal reports on their experimental investigations.
- Providing opportunities for students to enhance their communication skills by means of formal writing, oral presentations, and world-class electronic media technology.
- Developing students' skills in the design process, including the ability to formulate problems, think logically and clearly, communicate effectively, synthesize information creatively, and function efficiently in a collaborative, teamwork environment.
- Providing the scope for co-curricular and extra-curricular activities which permit learning about the profession through professional societies, guest lectures, field trips, industrial employment, internships, active participation in national and international design competitions, and similar experiences.

- Installing in students an understanding of the importance of their professional, ethical, environmental, and social responsibilities, and their role in the contemporary issues of our society.

AEROSPACE ENGINEERING PROGRAM

Aerospace Engineering Program Mission Statement

The mission of the Aerospace Engineering (AE) program is to fulfill the needs of students, of industry and government, and of the local, national, and global community in the area of aerospace systems engineering education and research.

The mission is implemented through the following objectives:

1. Provide undergraduate students with a comprehensive education for successful careers in aerospace engineering.
2. Provide graduate students with an education for the advancement of their careers and access to doctoral studies.
3. Provide an environment for students and faculty to engage in creative thinking and research in the areas of computational fluid dynamics, aero- and hydrodynamics, design and optimization, composite materials, manufacturing, and structural analysis and design.
4. Promote aerospace sciences and engineering at the University and the broader community.
5. Establish ties with national and international educational and research institutions in order to promote worldwide exchanges.

Aerospace Engineering Undergraduate Program Educational Objectives

The goal of the undergraduate program is to produce well-rounded engineers who possess the skills required for a successful career in aerospace engineering. This goal is reached by:

1. Providing students with a comprehensive education in
 - 1.1 General Education, particularly communication in the English language and critical thinking, the physical universe, humanities and arts, social and behavioral sciences and history, and self-integration.
 - 1.2 Mathematics and basic sciences,
 - 1.3 General engineering topics and computer and software fundamentals, and
 - 1.4 Aerospace engineering topics (aerodynamics, aerospace materials and structures, propulsion, space environment and space systems, communications and avionics systems, orbital and flight mechanics, and stability and control).
2. Preparing students for careers in aerospace engineering by emphasizing
 - 2.1 Analysis and problem solving,
 - 2.2 Preliminary design, design for manufacturing and systems engineering,
 - 2.3 Teamwork, professionalism, economic fundamentals, commercial viability of projects and business cases, and communication skills.
3. Providing student projects, internship and research opportunities to expose students to the professional environment, to stimulate their creativity, and to foster lifelong learning.

The Culture of Continuous Improvement

The Department of Mechanical and Aerospace Engineering continuously seeks input from its students, alumni, employers, community and industry leaders in order to improve its programs and ensure that students receive the best possible education and training. It is supported by a professional Advisory and Development Council (ADC). The council consists of outstanding engineers and executives from industry and government 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.

ABET Accreditation

The Bachelor of Science in Mechanical Engineering and the Bachelor of Science in Aerospace Engineering are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) (Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710, website <http://www.abet.org>).

UNDERGRADUATE PROGRAMS IN MECHANICAL AND AEROSPACE ENGINEERING

Bachelor of Science in Mechanical Engineering (code MAE_BS01) (135 units)

The realm of mechanical engineering is so extensive that training must be broad and basic, providing grounding in fundamentals which an engineer requires in order to gain competence in any specialized field. In view of this, mechanical engineering curriculum includes ample foundation courses in mathematics, physics, chemistry, and design graphics. These are followed by courses in energy conversion, thermodynamics, fluid mechanics, mechanics and strength of materials, metallurgy, design, computer-aided design/ computer-aided manufacturing (CAD/CAM). Opportunity to explore further a particular area of interest is provided by additional elective courses in the senior year.

The laboratories of the department are provided with modern equipment for undergraduate instruction in the following areas: instruments and measurements, fuels and lubricants, materials and metallurgy, thermodynamics and heat power, vibration, design, and acoustics, strength of materials, design, CAD/CAM, control systems and manufacturing.

Some industry sponsored scholarships are available to upper division mechanical engineering students. Further information is available in the department office.

Requirements

Lower Division: CHEM 111A; CE 205; EE 211, 211L; MATH 122, 123, 224; ENGR 101; MAE 172, 205, 272; PHYS 151, 152.

Upper Division: CE 335, 336, 406; ECON 300; MATH 370A; MAE 300, 305, 322, 330, 336, 337, 361, 371, 373, 375, 376, 409, 431, 459, 471, 472, 476, 490, to total at least 135 units.

Bachelor of Science in Aerospace Engineering (code MAE_BS02) (132 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, gradu-

ates will have completed appropriate courses in communications and in humanistic social studies. The Mechanical and Aerospace Engineering Department is well equipped with state-of-the-art laboratories and computer facilities for undergraduate and graduate instruction.

Requirements

A grade of "C" or better must be achieved in all prerequisites for aerospace engineering courses.

Lower Division: CHEM 111A; MATH 122, 123, 224; PHYS 151, 152; CE 205; EE 211, 211L; MAE 101A, 172, 205.

Upper Division: ECON 300; MATH 370A; MAE 330, 333, 334, 350, 365, 371, 373, 374, 381, 390, 408, 434, 440, 452, 453, 465, 478, 479, 483, 486 and approved electives to total at least 132 units.

Bachelor of Science in Engineering

Option in Materials Engineering (code MAE_BS03) (136 units)

Modern engineering applications in all fields require new materials with properties well beyond those obtainable with the alloys available several years ago. New materials such as composites, ceramics, polymers, semiconductors and their manufacturing processes are needed for such diverse applications as the air transports, undersea deep submergence vessels, magnetic and semiconducting devices. Scientific knowledge in this area has expanded recently at a rate comparable to that experienced by the field of electronics. The materials option is offered to meet the demand for materials oriented engineers.

Course work is directed toward understanding of the properties of materials in terms of their atomic structure, and emphasis is placed on the behavior of materials in engineering applications. The laboratories have excellent equipment for studies in this field and include facilities for the determination of crystal structure, microscopic and X-ray diffraction, and Scanning Electron Microscope examination of solids, thermal and mechanical treatment and the determination of properties at low and high temperatures.

Requirements

Lower Division: CHE 200; CHEM 111A, 111B; CE 205; EE 211, 211L; MATH 122, 123, 224; ENGR 101; MAE 172, 205, 272; PHYS 151, 152

Upper Division: CHE 415; CE 406; ECON 300; EE 320; MATH 370A; MAE 322, 330, 361, 371, 373, 374, 375, 409, 459, 490, plus approved engineering elective courses to total a minimum of 136 units.

For information concerning admission to this program, please contact [Dr. Jalal Torabzadeh](#), Undergraduate Advisor, Mechanical Engineering Program.

Option in Industrial-Management Engineering (code MAE_BS04) (136 units)

This is an interdisciplinary degree in which both the College of Business Administration and the College of Engineering provide courses which will enable the student to have a technical engineering background plus a good foundation in business and management practices. The option consists of the core engineering courses through the junior year with an

addition of business courses in accounting, business law, management, inventory practices and operations research. The elective structure within this option is such that the student may specialize in either engineering, or a combination of both engineering and business.

Requirements

Lower Division: ACCT 201; CHEM 111A; CE 205; EE 211, 211L; FIN 220; MATH 122, 123, 224; ENGR 101; MAE 172, 205; PHYS 151, 152.

Upper Division: CE 406; ECON 300; FIN 320; IS 310; MATH 370A; MGMT 300; MGMT 411 or 412 or 413; MAE 305, 310, 322, 330, 371, 373, 376, 410, 459, 476, and approved electives to total at least 136 units.

For information concerning admission to this program, please contact [Dr. Jalal Torabzadeh](#), Undergraduate Advisor, Mechanical Engineering Program.

Certificate in Aerospace Manufacturing (code MAE_CT01)

Director: Hamid Hefazi

This Certificate Program is designed to give students and working aerospace engineers an educational opportunity to focus on the complex and dynamic issues related to aerospace manufacturing.

Requirements

1. Required prerequisite courses or consent of the Program Director
2. Consultation with program director and preparation of a Program Planner.
3. Satisfactory completion of the required courses as listed below.
4. Fulfillment of the Writing Proficiency Exam requirements
5. Completion of Bachelor of Science degree in an approved major. The certificate may be awarded concurrently with or subsequent to baccalaureate degree.

Required Courses

The Certificate Program requires a minimum of 19 semester units: MAE 455, 456; ENGR 511, 574 and 3 units of approved graduate or 400-level engineering classes. Students should consult with the program director to assess any needed prerequisites.

Certificate in Heating, Ventilating, and Air-Conditioning Engineering (code MAE_CT03)

Director

Hamid Rahai

Faculty

Hamid Rahai, Reza Toossi, Jalal Torabzadeh, and Hillar Unt

The 20-unit HVAC Certificate Program is designed to prepare engineering and science students for designing various HVAC systems and to familiarize them with HVAC equipment and their selection process.

With a proper choice of classes, you may also earn this Certificate in conjunction with your bachelor's degree. Contact the Department of Mechanical and Aerospace Engineering for more information.

Requirements

1. Consultation with the Program Director and preparation of a Program Planner;
2. Satisfactory completion of the required courses, as listed below;
3. Approval of the special project and its satisfactory completion (MAE 491);
4. Completion of a Bachelor of Science degree in an approved major. The Certificate may be awarded concurrently with or subsequent to the baccalaureate degree.

Required Courses

The HVAC Certificate Program requires a minimum of 20 semester units, as indicated below: MAE 330, 431, 438/538, 490E, 491, MAE 333 or CE 335; MAE 440 or CE 336

Certificate in Industrial Plastics Processing and Design (code MAE_CT02)

Director

Min-Ten Jahn

Professors

Mihir K. Das, C. Barclay Gilpin, Lloyd Hile, Min-Ten Jahn, Hillar Unt, Hsien-Yang Yeh

The certificate program in Industrial Plastics Processing and Design is an interdisciplinary program sponsored by the Mechanical Engineering and Chemical Engineering Departments. Polymeric materials rank as second in tonnage use currently of all materials, and indications are that in the near future they may surpass metals in total usage. There is a definite need for personnel familiar with the processing and special design considerations necessary to properly make use of the special properties of this broad class of materials. The program permits a student to study in detail the industrial production processes, material testing procedures, economics of the polymerics industry and degradation of polymerics. All students in the program complete an individual project, consisting of the design of an item, choice of proper polymeric material for the particular application, choice of the processing operation and construction of the necessary molding tools and testing of the completed device. Contact the Department of Mechanical and Aerospace Engineering.

Requirements

1. A bachelor's degree in engineering. The certificate may be awarded concurrently with the degree.
2. Satisfactory completion of 22 units minimum from the courses listed below: Polymeric Processing: CHE 200, 425; MAE 471 and either 472 or 476; and a minimum of 3 units in either CHE 490 or MAE 491. Properties of Polymers: MAE 373, 374, and 424/524.
3. Approval of the certificate committee for admission to the certificate program. An advisor will be appointed to you at that time.
4. The advisor's approval of your completion of the special project.

Certificate in Energy Conversion and Power Systems Engineering (code MAE_CT04)

Director

Hamid Rahai

Faculty

R. Das, S. deSoto, H. Nour, E. Mijares, H. Rahai, R. Toossi, J. Torabzadeh, and H. Unt

The 27-unit certificate program in "Energy Conversion and Power Systems Engineering" is an undergraduate program designed to prepare Electrical and Mechanical Engineering students to become proficient in the analysis and design of power generating systems, such as direct conversion, coal burning, hydraulic, nuclear, solar, wind, and various other types of power plants.

Requirements

1. Consultation with program advisors in Electrical or Mechanical and Aerospace Engineering Departments and preparation of a program planner;
2. Completion of the following core courses: CE 335, EE 350, EE 452, MAE 330, 336, 431;
3. Completion of 9 units from the following list of elective courses: EE 453, 455, 458, 460, 550, 551, 552, 553; MAE 490, 538;
4. Completion of a Bachelor of Science degree in an approved major. This certificate may be awarded concurrently with or subsequently to baccalaureate degree.

GRADUATE PROGRAMS

Admission to any of the graduate programs requires a minimum GPA of 2.5 in the last 60 units attempted.

Master of Science in Mechanical Engineering (code MAE_MS02)

Built on a broad and basic undergraduate instruction, the graduate level courses and the graduate degree, Master of Science in Mechanical Engineering, develop competence in the fields of design and manufacturing, dynamics and controls, materials and composites, mechanics and Finite Element Methods, and thermal systems. Modern laboratories in CAD, fluid power and mechanics, heat power, control systems, manufacturing, plastics, design, thermodynamics, heat flow, metallurgy, and mechanical properties of materials are maintained for undergraduate and graduate instruction, and graduate research. Design rooms, excellent laboratories within the other engineering departments, computer facilities, and good machine shops supplement the mechanical engineering facilities.

Additional details may be found in the *Schedule of Classes*. For further information and complete degree requirements contact the Chair, Mechanical and Aerospace Engineering Department.

Prerequisites

1. A bachelor's degree in an accredited curriculum in mechanical engineering, with a minimum GPA of 2.5; or
2. A bachelor's degree in engineering with a minimum GPA of 2.5, a natural science or other appropriate discipline with the requirement that essential undergraduate prerequisites in mechanical 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;
4. The Writing Proficiency Examination (WPE) must be taken and passed during the first semester in residence. Failure to pass WPE will prevent registration in engineering courses in subsequent semesters. Courses taken after the semester without having passed the WPE will not be counted toward any graduate engineering degree.

Note: Before being admitted, a qualified student with a non-engineering 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.

Advancement to Candidacy

1. Removal of all undergraduate deficiencies as determined by the Department Graduate Advisor;
2. Students may, at the discretion of the Department Graduate Advisor, be required to take examinations in their chosen areas.

Requirements

PLAN I

Completion of a minimum of 30 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Study Committee, including:

1. Eighteen units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas;
3. Completion of six units of MAE 698, and submission of a written thesis.

PLAN II

Completion of a minimum of 36 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Study Committee, 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 upper-division or graduate courses from appropriate areas;
3. Completion of six units of MAE 697.

Completion of a minimum of 30 units beyond the bachelor's degree in upper division and graduate courses approved by the student's Department Graduate Study Committee including:

1. A minimum of 21 units in engineering or mathematics courses with 18 units of 500- and/or 600-level courses in mechanical engineering;
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas;
3. Completion of an acceptable thesis is required.

Master of Science in Aerospace Engineering (code MAE_MS01)

The Master of Science in Aerospace Engineering program has been created to educate graduate students in subjects relevant to the requirements of industry and in deductive reasoning which will benefit them and the community. This program is unique in its emphasis on practical applications and intimate interaction with the aerospace industry. It involves the most modern computational and experimental methods and provides the essential information permitting the students to acquire knowledge and skills of immediate practical importance. This knowledge is communicated in the courses listed below and used in the conduct of a thesis project to be carried out with participation from industry. Area Specializations include: spacecraft or aircraft systems engineering, computational fluid dynamics, and aerospace structures.

Both graduate and undergraduate programs benefit from the advice of an advisory committee made up of senior staff of aerospace companies, government agencies and universities.

Further information and applications may be obtained from the Department of Mechanical and Aerospace Engineering, California State University, Long Beach, CA 90840.

Requirements for Admission

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) units attempted. Applicants with lower GPA may be admitted subject to successful completion of appropriate deficiencies.

A bachelor's degree in engineering, mathematics, science or other appropriate discipline with the requirement that essential undergraduate prerequisites in engineering be satisfied.

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 upper-division and graduate courses approved by the student's Department Graduate Study Committee, including:

1. Eighteen units of 500- and/or 600-level courses in mechanical and aerospace engineering;
2. Six units of electives selected from approved upper-division or graduate courses from appropriate areas;
3. Completion of six units of MAE 698, and submission of a written thesis.

PLAN II

Completion of a minimum of 36 units beyond the bachelor's degree in upper-division and graduate courses approved by the student's Department Graduate Study Committee, 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 upper-division or graduate courses from appropriate areas;
3. Completion of six units of MAE 697.

Advancement to Candidacy

Prerequisites for advancement to candidacy are:

1. Classified status.
2. An approved program of studies for the Master of Science in Aerospace Engineering.
3. Satisfactory completion of the CSULB Writing Proficiency Examination (WPE). Information is available in the Testing Office (BH-216). This requirement can also be met by evidence that the student passed the WPE while an undergraduate at CSULB or at certain CSU campuses.
4. Be enrolled in regular session.
5. Application for Advancement to Candidacy must be done prior to or concurrent with enrollment in MAE 698, Thesis.

Master of Science in Engineering (code COE_MS01)

Admission to any of the graduate programs requires a minimum GPA of 2.5 in the last 60 units attempted.

For requirements, see the description in the College of Engineering part 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, and thus the Master of Science in Engineering: Program in Management Engineering is offered by the College of Engineering at California State University, Long Beach.

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.

The Emphasis in Management Engineering 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.

Well-suited for working students, graduate courses in management engineering are offered in the late afternoon and evening. An individualized program is developed according to each student's undergraduate degree, area of interest, or some well-defined industrial application; interdisciplinary approaches are encouraged.

The graduate program supports innovative thesis topics that enable the degree candidate to be knowledgeable about new applications and/or areas in management engineering.

The graduate Emphasis in Management Engineering at California State University, Long Beach seeks to:

- Provide industry and government with engineers who have essential management knowledge and skills.
- Provide engineers with career advancement opportunities in project management and the management of research, manufacturing and other technical enterprises.
- Educate engineers as managers who can effectively plan and implement technological projects.

Systems Engineering Emphasis

Systems engineering is the discipline by which definition, planning and design of complex systems is conducted. Significant need exists in industry to increase Systems Engineering understanding, expertise and related tool set knowledge. Customers, including the Department of Defense, are focusing more closely on Systems Engineering capability and the ability to plan and execute complex programs.

Ph.D. in Engineering and Industrial Applied Mathematics (code COE_PH01)

For requirements, see the description in the College of Engineering section of this *Catalog*.

Courses (MAE)

All courses in the Department are Letter grade only (A-F) unless otherwise stated.

Lower Division

101A. Introduction to Aerospace Engineering (1)

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. (Lecture-problem 1 hour)

172. Engineering Design Graphics (3)

Graphics concepts and visualization. Graphic expressions using CAD software, emphasis on industrial practice involving part and assembly drawings for actual products, standards, tolerances, surface finishes, and other attributes on drawings, production drawings, projects involving complete design of systems and subsystems. (Lecture-problems 2 hrs., design laboratory 3 hrs.) (CAN ENGR 2)

205. Computer Methods in Mechanical Engineering (2)

Prerequisites: MATH 122; PHYS 151. Application of computer programming to engineering problem solving; structured approach to problems; input-output concepts for both numerical and graphical results. (Lecture-problems 1 hour, laboratory 3 hours)

272. Introduction to Manufacturing Processes (2)

Prerequisite: MAE 172. Comprehensive survey of modern techniques in manufacturing processes. Basic manufacturing processes, nature and properties of materials; production of metals; foundry, casting and heat treatment; welding, powder metallurgy (sintering), plastics, metrology; working of metals, press work; machine tool elements, numerical control; metal cutting and turning; drilling, boring, milling; shaping planning, sawing broaching; grinding, sanding; gears and gear-cutting, threads and thread-cutting. (Lecture-problems 1 hour, laboratory 3 hours.)

Upper Division

300. Engineering Instrumentation and Measurement (2)

Prerequisites: MATH 224, PHYS 151, 152. Statistical analysis of experimental data, uncertainty analysis, various statistical distributions and test of goodness of fit, correlation coefficient and multivariable regression. Engineering instrumentation including different types of passive and active transducers, electronics for instrumentation, computer-based data acquisition systems, and experiments on pressure, temperature, and force measurements. (Lecture-problems 1 hour, Laboratory 3 hours.)

305. Numerical Methods in Mechanical Engineering (3)

Prerequisite: MAE 205; MATH 370A. Advanced numerical methods applied to the solution of mechanical engineering problems. Roots of algebraic and transcendental equations. Solution of simultaneous linear algebraic equations. Parametric notation of analytical curves, surfaces, and splines. Numerical integration and differentiation. Numerical integration of ordinary differential equations; initial-value problems, boundary-value problems. Partial differential equations. Individual and/or group projects. (Lecture-problems 3 hours.)

310. Safety and Reliability in Systems Design I (3)

Prerequisites: MAE 205; MATH 370A, or consent of instructor. Introduction to probabilistic design analysis; safety and reliability analyses and tools to assess the adequacy of the designs; identification of critical elements of the design and practical design guidance; compliance with the requirements. Coherent use of reliability concepts, tools, and reliability programs to produce reliable and safe system designs. Group projects involving the design of a reliable and safe "real-life" system. (Lecture-problems 3 hours.) Not open to students with credit in ME 390.

322. Engineering Materials and Materials Processes (3)

Prerequisites: CHEM 111A, MATH 123, MAE 172. Structure and properties of engineering materials. Phase and transformation diagrams. Heat treatments and mechanical processing. Manufacturing methods of metals, alloys, polymers, composites, ceramics, and semiconductors. (Lecture-problems 3 hours.)

330. Engineering Thermodynamics I (3)

Prerequisites: MATH 224, PHYS 151 or equivalent, and CHEM 111A 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. (Lecture-problems 3 hours)

333. Engineering Fluid Dynamics (3)

Prerequisites: PHYS 151, MATH 370A. Fundamentals of fluid mechanics, formulation of the conservation of mass, momentum and energy for one-dimensional, finite and differential control volumes. Non-dimensional parameters. Pipe flow. External flow. (Lecture-problems 3 hours.)

334. Aerodynamics I (3)

Prerequisite: MAE 371. Aircraft forces. 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 comparisons of various aircraft. (Lecture-problems 3 hours.)

336. Power Plant Design (3)

Prerequisite: MAE 330. 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 2 hours, laboratory 3 hours.)

337. Thermal Engineering Laboratory (2)

Prerequisite: MAE 336. 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.)

350. Flight Mechanics (3)

Prerequisite: MAE 371. Aircraft forces. 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 comparisons of various aircraft. (Lecture-problems 3 hours.)

361. Materials and Properties Laboratory (1)

Prerequisites: ENGL 100 or equivalent, MAE 300, 322, 373. 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)

365. Aerospace Structures I (3)

Prerequisite: MAE 373. Mechanical behavior of aerospace materials. Torsion of thin walled section beams. Bending and torsion of advanced beams. Analysis of stiffened box beams. Load transfer in stiffened panel structures. Failure criteria of aerospace materials. (Lecture-problems 3 hours.)

*371. Analytical Mechanics II (Dynamics) (3)

Prerequisites: CE 205, MAE 205 or CE 206. 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.)

373. Mechanics of Deformable Bodies (3)

Prerequisite: CE 205. 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.)

374. Mechanical Properties of Materials Laboratory (1)

Prerequisites: MAE 373, ENGL 100 or equivalent. 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.)

375. Kinematics and Dynamics of Mechanisms (3)

Prerequisites: MAE 272, 322, 371. Fundamentals of linkages, cams, gears and gear trains. Velocity and acceleration analysis of machines leading to dynamic loading of machine parts; dynamic analysis and balancing of rotating machines; internal combustion engine balancing. Individual design projects. (Lecture-problems 2 hours, laboratory 3 hours.)

376. Modeling and Analysis of Dynamic Systems (3)

Prerequisite: MAE 371; MATH 370A. Modeling and analysis of dynamic systems including mechanical, electrical, electro-mechanical, and hydraulic systems. Use of complex algebra and Laplace transforms. Mathematical modeling of dynamic systems in state-space. Linear systems analysis in time and frequency domains. Introduction to feedback control systems. (Lecture-problems 3 hours.)

381. Spacecraft Systems Engineering (3)

Prerequisites: PHYS 152, MAE 371. A systems engineering approach to spacecraft design is presented. Space environments and their impact on spacecraft design, attitude determination and control, and other spacecraft subsystems (thermal, propulsion, configuration, telemetry, power, etc.) are reviewed, including aspects associated with manned space missions. Team projects including spacecraft subsystem design are assigned. Written reports and oral presentations are required. (Lecture-problems, 3 hours.)

390. Aerospace Engineering Seminar (1)

Prerequisite: Upper division standing. Through exercises and projects, the students develop improved communications skills, both written and oral. The students are introduced to effective communication techniques and make oral presentations. Guest speakers from industry cover topics such as professional practice of engineering, social responsibilities of engineers, examples of ethical and legal issues, as well as the latest developments in Aerospace Engineering. Students write reports regarding these presentations, both from technical and communication point of views. (Seminar 1 hour).

408./508. 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. Trade studies and risk management. Projects are assigned and written reports and oral presentations are required. (Lecture-Problems 3 hours.)

*409. Modern Computational Aspects in Mechanical Engineering (3)

Prerequisites: Senior standing in engineering and consent of instructor. Computational aspects of various branches of Mechanical Engineering. Typical subjects covered are finite element analysis of structures, fluids, or heat transfer; boundary element analysis. May be repeated once for credit to a maximum of six units with the consent of the department. (Lecture-problems 3 hours.)

A. Finite Element Methods I

Finite element methods for beam and truss elements. Systems of ordinary differential equations and their solution in a finite element formulation. Variational formulation of the finite element method. Static and dynamic analysis of complex structures idealized by truss-beam and plane stress elements. Rigid elements in an elastic environment. Automatic mesh generation for 1D, 2D, 3D structures via solid modeling using IDEAS. (Lecture-problems 3 hours.)

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. (Lecture-problems 3 hours.)

410. Safety and Reliability in Systems Design II (3)

Prerequisite: MAE 310 or consent of instructor. Application of the probabilistic design analysis and theory to real case studies of system design using safety and reliability tools and analysis to set design criteria, assess system design, determine failure modes and critical elements, provide practical design experience and demonstrate compliance with the requirements. Group and/or individual projects involving complete design of reliable and safe systems. (Lecture-problems 2 hours, laboratory 3 hours.)

422./522. Composite Materials (3)

Prerequisite: MAE 373. Stress-strain relations for anisotropic materials. Classical lamination theory. Strength and failure theories for laminates and laminates. Micromechanics. Applications of composite structures. Additional projects will be required for MAE 522. (Lecture-problems 3 hours)

424./524. Engineering Principles and Properties of Plastics (3)

Prerequisites: MAE 373. Nature of polymers, physical and mechanical properties of plastics. Polymerization reactions and production. Properties of co-polymers, polymer solutions. Visco-elastic properties of polymeric. (Lecture-problems 3 hours.)

*425. Chemical and Electrochemical Manufacturing Processes (3)

Prerequisites: MAE 322, 330; or CHEM 371A or consent of instructor. Theory of electrochemical processing. Electroplating and electroless plating solutions, processes and equipment. Anodizing and other surface treatments. Carburizing, nitriding atmospheres and equipment. Diffusion in solids. The effect of surface treatments on mechanical properties. Same course as CHE 435. (Lecture-problems 3 hours.)

430./530. Measurement Techniques in Fluid Mechanics and Heat Transfer (3)

Prerequisites: MAE 330, CE 335. Experimental uncertainty, electrical transducers and pressure measurements, thermocouples and other temperature measurement devices, resistance bridges, amplifiers and filters, optical measurement devices, digital image processing, holography and laser doppler velocimeter. (Lecture-problems 3 hours.)

*431. Heat Transfer Systems Design (3)

Prerequisites: MAE 305, 330; CE 335. Analysis of heat transfer by conduction, convection and radiation. Investigation of steady state and transient heat transfer systems. Computer methods. Individual or group design projects involving real-life problems in heat transfer such as electronic packaging, heat exchangers, heat engines, refrigerators, and thermal systems analysis. (Lecture-problems 2 hours, laboratory 3 hours.)

434. Aerodynamics II (3)

Prerequisite: MAE 334. Incompressible flow about wings of finite span. Vortex lattice method. Compressible flows, Subsonic and supersonic flows around airfoils and wings. Introduction to computational fluid dynamics (CFD). Aerodynamic design considerations. Projects are assigned and written reports and oral presentations are required. (Lecture-problems 3 hours.)

435./535. Computational Fluid Dynamics I (3)

Prerequisites: MATH 370A, MAE 333. 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, computational methods for solving full potential equation, grid generation techniques, application to inviscid and viscous subsonic, transonic, and supersonic flows. (Lecture-Problems 3 hours)

438./538. Heating, Ventilating, Air Conditioning, and Refrigeration (3)

Prerequisites: MAE 330, CE 335. 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)

440. Aerodynamics Laboratory (1)

Prerequisite: MAE 334 or consent of instructor. 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. (Laboratory 3 hours).

451./551. Aircraft Preliminary Design and Performance (3)

Prerequisite: Consent of instructor. Complete aircraft preliminary design, including mission definition, applicable specifications, and regulations. Preliminary takeoff weight and weight empty for a specific mission. Aircraft geometric characteristics, including engine size, 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)

452. Propulsion (3)

Prerequisites: MAE 330, 434. The simple gas turbine cycle. Heat exchange and reheat gas turbine cycles. Gas turbine components. Ideal and actual thrust development in gas turbines. Principles of rocket engines. Solid, liquid and hybrid fuel rockets. Thrust and control in rockets. Projects are assigned and written reports and oral presentations are required. (Lecture-problems 3 hours).

453./553. Stability and Control of Aerospace Vehicles (3)

Prerequisite: MAE 350 or equivalent. Physical dependence of airplane stability and control characteristics on airplane configuration and flight condition. Equations for the static longitudinal, lateral and directional stability of airplanes. Neutral points, control effectiveness, trim in maneuvering flight. Configuration determinants. Transient modes. Additional Projects required for MAE 553. (Lecture-problems 3 hours).

455. Aerospace Manufacturing Laboratory (1)

Prerequisite: Senior standing. A design project is given and students are required to complete the design taking into account the manufacturing equipment, control and systems available. (Laboratory 3 hours).

456. Production Methods for Aerospace Manufacturing (3)

Prerequisite: Consent of instructor. Survey of production processes, sequence of operations, equipment and facilities, methods, tools, plans and requirement of various aerospace products. Observation of an actual aerospace manufacturing activity. (Lecture-problems 3 hours).

457. Lean Manufacturing (3)

Prerequisite: Senior standing. Fundamental makeup of a Lean Enterprise. Study of necessary ties to the customer and relationships both internal and external to the company as well as the leadership, which forms the foundation of a Lean Enterprise. Study of the mechanism of continuous process improvement, which is essential to sustained "Lean" operations. Case studies to accomplish value stream analysis and develop a Lean Enterprise improvement plan for student's own respective operations. (Lecture-problems 3 hours).

*459. Professional Practice Seminar (1)

Prerequisite: Senior standing or consent of instructor. The course covers professional practice of engineering, and social and moral responsibilities of engineers, including codes of conduct. Trends and outlook of national and local industries are examined in the context of future employment. Examination of ethical and legal issues, including intellectual property rights and regulatory codes and practices. Students are encouraged to participate in the activities of professional societies such as ASME, and attend professional seminars organized by them in order to instill the habit of life-long learning. The role of graduate studies in engineering and related fields are discussed in the context of professional development. The Industrial practices of teamwork and professionalism, including licensure, are emphasized. Students are strongly encouraged to take the FE (Fundamentals of Engineering, formerly EIT) Examination. Written reports and oral technical presentations are required. (Lecture-Problems 1 hour).

465. Aerospace Structures II (3)

Prerequisite: MAE 365. Work-energy principles. Force method to trusses, beams, frames, and shear panels. Force method to thin-walled stiffened structures. Structural stability. Elementary aeroelasticity. Matrix methods of aerospace structural analysis. Application of finite element computer programs. Team projects are assigned and written reports and oral presentations are required. (Lecture-problems 3 hours).

*471. Analysis and Design of Machine Components (3)

Prerequisites: MAE 374, 375. Application of the principles of mechanics and physical properties of materials to the proportioning of machine elements, including consideration of function, safety, production and economic factors. Group and/or individual design projects of mechanical systems and/or subsystems. (Lecture-problems 2 hours, laboratory 3 hours.)

*472. Design of Mechanical Engineering Systems (3)

Prerequisites: MAE 330, 373, 375; CE 335. Corequisite: CE 406. This is a capstone course giving a meaningful experience in the design of Mechanical Engineering Systems, integrating accumulated knowledge and skills of mechanical engineering and engineering standards. The design experience starts with the conceptual design, followed by literature review and analysis. It culminates in a final design that includes: drawings, manufacturing and assembly of the final product or a prototype. Emphasis is placed on identifying realistic constraints simulating practical, industrial situations with factors such as economics, environment, sustainability, manufacturability, life cycle, ethics, health and safety, social and political consequences, which affect design choices. Project results are presented in a final, formal report followed by an oral technical presentation to a peer group. Wherever possible, teamwork and interaction with practicing engineers is encouraged. (Lecture-Problems 2 hours, Design Laboratory 3 hours.)

474./574. Computer-Aided Manufacturing (3)

Prerequisites: MAE 322, 490A. Fundamental concepts in automation. High volume discrete parts production systems. Numerical control manufacturing systems. Computer process monitoring. Direct digital control. Group techniques. Flexible manufacturing systems. (Lecture-problems 3 hours.)

*476. Mechanical Control Systems I (3)

Prerequisite: MAE 376. Feedback control systems in mechanical engineering. Modeling, analysis, and design. System performance and design criteria: stability, transient response, frequency response and compensation, root locus. Introduction to nonlinear control systems, state space analysis and design. (Lecture-problems 2 hours, laboratory 3 hours.)

478. Aerospace System Design I (3)

Prerequisites or corequisites: MAE 434, 465, or consent of instructor; fulfillment of the Writing Proficiency Examination (WPE). This two semester capstone design experience integrates the essential aspects of aerospace systems design. Each team of students is assigned a design project, to be completed in the two-semester course sequence. In this first semester course, from general specifications, the teams define the requirements and work through the complete design by the end of the second semester course (MAE 479). Design for manufacturing is emphasized. Regular design reviews (oral presentations and written reports) are essential components in grading. (Lecture-Design Project 2 hours, Laboratory 3 hours)

479. Aerospace System Design II (3)

Prerequisite: MAE 478. This course is the continuation of Aerospace Systems Design I (MAE 478). The projects assigned in teams in MAE 478 are completed. Manufacturing is included when appropriate. Regular design reviews (oral presentations and written reports) are essential components in grading. (Lecture-Design Project 2 hours, Laboratory 3 hours)

483. Space Flight and Orbital Mechanics (3)

Prerequisites: MAE 381. Particle dynamics. Circular orbits: stability, Lagrange points, tidal forces, gravitational resonance. Celestial mechanics. Bound and unbound orbits. Predicting orbital positions. Orbital transfers and the orbital rendezvous problem. Principles of rocketry. Projects are assigned and written reports and oral presentations are required. (Lecture-problems 3 hours).

486./586. Avionics Systems (3)

Prerequisites: MAE 453. 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).

490. Special Topics (3)

Prerequisites: Senior standing in engineering and consent of instructor. Selected topics from recent advances in mechanical and aerospace engineering. Course content may vary from semester to semester. This course can be repeated once for credit on a different topic. (Lecture-problems 3 hours)

A. CAD/CAM

Fundamentals of computer-aided design/computer-aided manufacturing (CAD/CAM). Creating, reading, and understanding databases for solid models. Assemblies and sub-assemblies. Design and analysis of mechanisms with linkages, gears, springs, dampers. Finite Element Modeling of parts, assemblies, and mechanisms. CAM, 3-axis milling, APT. Design optimization. Not open to students with credit in ME 405A.

B. Robotics Principles

Major components of a robot and robotic applications. Translational, rotational motion and motion conversions. Modeling of mechanical systems and kinematic chains. Physical control elements, forces encountered, and sensors. Software and hardware considerations, including robot programming. Robot design examples. Not open to students with credit in ME 405B.

C. Environmental Engineering and Atmospheric Science

The history, technology, control programs, and current regulatory developments relating to combustion generated air pollution. Topics include: thermodynamics and kinetics of combustion, flame structures, pollutant formations, emissions from automobiles and power plants, furnaces and incinerators, particulate, unburned hydrocarbons, oxides of nitrogen and carbon, control technologies, meteorological considerations, atmospheric processes, ozone layers, and air pollutant dispersion models. Not open to students with credit in ME 405C.

D. Hybrid Electrical Vehicles System Design

The history, technology, and future of hybrid vehicles and the role they will play in the future. Students will be exposed to a wide range of topics related to advanced transportation and electric/hybrid vehicles. Students will also be involved in group projects which may involve testing, manufacturing, and modeling of various components for hybrid vehicles. Effects of aerodynamic forces, manufacturing considerations, energy management, ergonomics and economics on overall design of the vehicles are investigated. Not open to students with credit in ME 405D.

E. HVAC Systems Design and Equipment

Prerequisites: MAE 330, CE 335. Design of air conditioning systems, the design process, occupant comfort, load calculations, components and control, all air systems, air and water systems, and all water systems. Not open to students with credit in ME 405E.

F. Petroleum Engineering

Prerequisites: Senior standing in engineering or science. Overview of petroleum engineering operations, properties of petroleum reservoir rocks, single-phase and multiphase fluid-flow through porous media. Properties of reservoir fluids. Field trips. (Lecture-problems 3 hours)

491. Special Problems (1-3)

Prerequisite: Senior standing. Assigned topics in technical literature or laboratory projects and reports on same.

495./595. Rapid Product Development (3)

Prerequisites: MAE 490A, 409A. Rapid product development using solid modeling features. Creating different design proposals for a specified development period. Manufacturing the design models (complex 3-D parts or mechanisms) via rapid prototyping. Simplified finite element analysis and optimization of different design proposals. Selecting a final design model. Quality control process via a 3-D scanner and data acquisition software for checking tolerances and dimensions of complex parts or assembled mechanisms.

Product readiness for casting, mold flow analysis or machining via CAM. (Lecture-problems 3 hours.)

499./599. Mechanical and Aerospace Engineering Seminar (1)

Prerequisite: Approval of undergraduate or graduate advisor. Seminars on topics of current interest in Mechanical and Aerospace Engineering and presentation of student/faculty research. May be repeated to a maximum of 3 units; only 1 unit of credit may be applied towards degree requirements. (Seminar 1 hour)

Graduate Level

501. Engineering Analysis I (3)

Prerequisite: MATH 370A. Differential equations, series solutions of differential equations (special functions), boundary value problems and characteristics function representation, Laplace transforms, Four analysis, partial differential equations, methods of formulating and solving problems in engineering for systems of differential equations and partial differential equations. (Lecture-problems 3 hours.)

502. Engineering Analysis II (3)

Prerequisite: MATH 370A. Analysis of mechanical engineering problems by matrix theory and complex variables; numerical techniques. (Lecture-problems 3 hours.)

505. Quantitative Methods for Engineering Managers (3)

Prerequisites: MAE 501 or 502 or equivalents. Concepts and methods for using quantitative approaches in engineering management decision-making. Various computer-based tools that can be used in management decision-making to provide the basis for the decision or to help validate decisions made using subjective approaches. Probabilistic methods, forecasting, various forms of the linear program model, network analysis, dynamic programming, Monte Carlo simulation and queuing models. The course is application oriented with sufficient theoretical background provided to effectively use the computer-based tools and properly interpret their results. Methodologies for formulating the problem are emphasized, so that the applicable quantitative techniques can be implemented. (Lecture-problems 3 hours)

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.)

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.)

508./408. 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. Trade studies and risk management. Projects are assigned and written reports and oral presentations are required. Additional projects required for MAE 508. (Lecture-Problems 3 hours.)

511. Advanced Manufacturing Management Systems (3)

Prerequisite: Consent of Instructor. Advanced management systems for Integrated Product Development (IPD) and Concurrent Engineering (CE); Quality, Productivity and Costs, with emphasis on Just-in-Time Manufacturing (JIT); Quality-Based Manufacturing Systems: TQM and ISO 9000; Customer Requirement and Quality Function Deployment (QFD); Design for Manufacturing and Assembly (DFMA) and other defect prevention systems, such as Poka-Yoke; Demand-Driven, "Pull" type manufacturing systems. "Lean Enterprise" concepts. (Lecture-Problems 3 hours.)

512./612. Computer Aided Design in Mechanical Engineering (3)

Prerequisites: MAE 490A, 501, 502. (Master's students register in MAE 512 or 612; Ph.D. students register in MAE 612). 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.)

521. Engineering Metallurgy II (3)

Prerequisite: MAE 322. 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.)

522./422. Composite Materials (3)

Prerequisite: MAE 373. Stress-strain relations for anisotropic materials. Classical lamination theory. Strength and failure theories for laminae and laminates. Micromechanics. Applications of composite structures. Additional projects will be required for MAE 522. (Lecture-problems 3 hours.)

524./424. Engineering Principles and Properties of Plastics (3)

Prerequisites: MAE 373. Nature of polymers, physical and mechanical properties of plastics. Polymerization reactions and production. Properties of co-polymers, polymer solutions, visco-elastic properties of polymeric. Additional projects will be required from M.S. students. (Lecture-problems 3 hours.)

527. Metals and Plastics Manufacturing Processes (3)

Prerequisite: MAE 322. Theory of metal forming and plastics processing. Includes metal forging and rolling, metal and plastics extrusion, plastics injection molding, casting. Discussion of appropriate manufacturing methods. (Lecture-problems 3 hours.)

529. Structural Analysis of Composite Laminates (3)

Prerequisite: MAE 522 or consent of instructor. Beams, columns and rods of composite materials. Bending, vibration and buckling analysis of composite laminates. Shells of composite materials. Joining of composite material structures. (Lecture-Problems 3 hours)

530./430. Measurement Techniques in Fluid Mechanics and Heat Transfer (3)

Prerequisites: MAE 330, 431, CE 335. Experimental uncertainty, electrical transducers and pressure measurements, thermocouples and other temperature measurement devices, resistance bridges, amplifiers and filters, optical measurement devices, digital image processing, holography and laser doppler velocimeter. Additional projects are required for MAE 530. (Lecture-problems 3 hours.)

531. Advanced Heat Transfer (3)

Prerequisites: MAE 431, 501. 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.)

532. Combustion I (3)

Prerequisites: MAE 336, 431. Fundamentals of combustion engineering: fuels; chemical thermodynamics and chemical kinetics; premixed and diffusion flames; ignition and extinction; Hugoniot curves; flammability and explosion limits; pollutant formation and control; applications in spark-, and charged-ignition internal combustion engines; gas-fired and oil-fired furnaces. (Lecture-Problems 3 hours.)

533. Gas Dynamics (3)

Prerequisite: MAE 333 or equivalent. 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 for the linearized potential equation with applications to wings and bodies, slender body theory, similarity rules, transonic flow, shock wave/boundary layer interactions. (Lecture-Problems 3 hours)

534. Transport Processes in Porous Media (3)

Prerequisite: Graduate Standing in engineering. Fundamentals of mass, momentum and heat transfer through porous media; flow characteristics of porous structures; principles of single-phase and multi-phase flow in porous media; flow of immiscible and miscible fluids, hydrodynamic dispersion in porous structures, deterministic and stochastic modeling of flow in porous media. (Lecture-problems 3 hours.)

535./435. Computational Fluid Dynamics I (3)

Prerequisites: MATH 370A, MAE 333. 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, computational methods for solving full potential equation, grid generation techniques, application to inviscid and viscous subsonic, transonic, and supersonic flows. Additional projects will be required for MAE 535. (Lecture-Problems 3 hours.)

536. Statistical Thermodynamics (3)

Prerequisites: MAE 330, 501 or equivalent. Fundamentals of statistical mechanics; quantum mechanics and statistics as applied to thermodynamics; behavior of gases and solids; chemical equilibrium. (Lecture-problems 3 hours.)

537. Advanced Fluid Dynamics I (3)

Prerequisites: CE 335, MAE 431. 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.)

538./438. Heating, Ventilating, Air Conditioning, and Refrigeration (3)

Prerequisites: MAE 330, CE 335. 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. Additional projects required for MAE 538. (Lecture-Problems 3 hours.)

551./451. Aircraft Preliminary Design and Performance (3)

Prerequisite: Consent of instructor. Complete aircraft preliminary design, including mission definition, applicable specifications and regulations. Preliminary takeoff weight and weight empty for a specific mission. Aircraft geometric characteristics, including engine size, 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)

553./453. Stability and Control of Aerospace Vehicles (3)

Prerequisite: MAE 350 or equivalent. Physical dependence of airplane stability and control characteristics on airplane configuration and flight condition. Equations for the static longitudinal, lateral and directional stability of airplanes. Neutral points, control effectiveness, trim in maneuvering flight. Configuration determinants. Transient modes. Additional Projects required for MAE 553. (Lecture-problems 3 hours.)

563. Linear Finite Element Analysis (3)

Prerequisite: MAE 409A. Finite element (FE) forms of differential equations. Boundary value problems, energy theorems, matrix displacement method, and finite difference method. Generation of FE stiffness, mass, and damping matrices. 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: STRUDL, NASTRAN, ANSYS, and ABAQUS. FE fluid flow and heat transfer analysis. (Lecture-problems 3 hours.)

565. Advanced Aerospace Structures (3)

Prerequisite: MAE 465 or consent of instructor. Application of energy principles and finite element method to aerospace structural components, plates and shells without stiffeners, structural dynamics, material and geometric nonlinear problems. FEA for composite structures, application to simple wings, finite element modeling techniques, application of finite element computer programs. (Lecture-problems 3 hours.)

567. Advanced Mechanics of Deformable Bodies (3)

Prerequisites: MAE 373, 374, 471 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.)

568. Creep and Fatigue (3)

Prerequisites: MAE 322, 373, 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.)

572. Structural Design Optimization (3)

Prerequisite: MAE 373 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, stacking sequence optimization of composite laminates using genetic algorithm. (Lecture-Problems 3 hours)x.

573. Advanced Control of Mechanical Systems (3)

Prerequisite: MAE 476. Advanced topics in analysis and design of modern control systems in mechanical engineering. Topics include state space, Riccati equation, Liapunov equation, Linear Quadratic Regulator (LQR), Kalman filter. Introduction to multivariable feedback systems, Linear Quadratic Gaussian (LQG), Loop Transfer Recovery (LTR), optimal control, robust control, H infinity control theory. Optimization via calculus of variations, Pontryagin's minimum principle. Control of distributed-parameter systems with applications to structural dynamics. (Lecture-problems 3 hours.)

574./474. Computer-Aided Manufacturing (3)

Prerequisites: MAE 322, 490A. Fundamental concepts in automation. High volume discrete parts production systems. Numerical control manufacturing systems. Computer process monitoring. Direct digital control. Group techniques. Flexible manufacturing systems. Additional projects will be required from M.S. students in a wide-range of Engineering applications. (Lecture-problems 3 hours.)

575. Advanced Dynamics with Robot Applications (3)

Prerequisites: MAE 371, MATH 370A. Detailed study of rigid body dynamics with emphasis on robot arm analysis. Three-dimensional kinematic analysis. Rotational and homogeneous transformations. Eulerian angles. Denavit Hartenberg representation. Kinematic chains. Recursive formulas. Euler's moment equations and gyro dynamics. Multi-body analysis. Lagrange's equations. Special topics. (Lecture-problems 3 hours.)

576. Engineering Vibrations I (3)

Prerequisites: MAE 376. 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.)

579. Engineering Acoustics (3)

Prerequisites: MAE 376, 502. Theory and application of acoustical principles to generation, transmission, measurement and control of sound. (Lecture-Problems 3 hours.)

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.)

582. Rocket and Spacecraft Propulsion (3)

Prerequisite: Graduate engineering standing or consent of instructor. Thrust and specific impulse. Compressible flows. Detailed analysis of liquid, solid and hybrid propulsion systems. Includes propellants, injection systems, combustion and chemical equilibrium, thrust chambers, nozzles and plumes. Electro-thermal thrust-

ers. Plasmas and electromagnetic thrusters. (Lecture-Problems 3 hours).

583. Astrodynamics (3)

Prerequisite: Graduate engineering standing or consent of instructor. Physical principles. Two-body and central force motion. Coordinate and time systems. Trajectory correction maneuvers. Position and velocity in conic orbits. Lambert's Problem. Celestial mechanics. Orbital perturbations. Numerical methods in orbital mechanics and mission analysis. (Lecture-problems 3 hours).

585. Spacecraft Attitude Determination and Control (3)

Prerequisite: Graduate engineering standing or consent of instructor. Rigid-body dynamics. Control systems. Spacecraft attitude dynamics and control. Stabilization methods and maneuvers. Impact of flexible structures. (Lecture-Problems 3 hours).

586./486. Avionics Systems (3)

Prerequisites: MAE 553. 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. Additional projects required for MAE 586. (Lecture-Problems 3 hours).

590./690. Advanced Topics in Mechanical and Aerospace Engineering (3)

Prerequisite: Graduate engineering standing or consent of instructor. Selected topics from recent advances in mechanical engineering. Course content will vary from year to year. Topics will be announced in the *Schedule of Classes*. May be repeated for a maximum of six units with different topics. (Lecture-problems 3 hours.)

595./495. Rapid Product Development (3)

Prerequisites: MAE 490A. Rapid product development using solid modeling features. Creating different design proposals for a specified development period. Manufacturing the design models (complex 3-D parts or mechanisms) via rapid prototyping. Simplified finite element analysis and optimization of different design proposals. Selecting a final design model. Quality control process via a 3-D scanner and data acquisition software for checking tolerances and dimensions of complex parts or assembled mechanisms. Product readiness for casting, mold flow analysis or machining via CAM. Additional projects will be required from M.S. students. (Lecture-problems 3 hours.)

599./499. Mechanical and Aerospace Engineering Seminar (1)

Prerequisite: Approval of undergraduate or graduate advisor. Seminars on topics of current interest in Mechanical and Aerospace Engineering and presentation of student/faculty research. Additional assignments will be required from graduate students. May be repeated to a maximum of 3 units; only 1 unit of credit may be applied towards degree requirements. (Seminar 1 hour)

612./512. Computer Aided Design in Mechanical Engineering (3)

Prerequisites: MAE 490A, 501, 502. (Master's students register in MAE 512 or 612; Ph.D. students register in MAE 612). 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.)

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.)

632. Combustion II (3)

Prerequisites: MAE 501, 532. Advanced topics in combustion: conservation equations for multi-component reacting systems; detonations and deflagrations; laminar and turbulent flames; flammability limits; ignition and extinction, combustion and radiation and their interactions. (Lecture-problems 3 hours.)

633. Hypersonic Flow (3)

Prerequisite: MAE 533. 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).

635./735. Computational Fluid Dynamics II (3)

Prerequisite: MAE 535. 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).

637. Advanced Fluid Dynamics II (3)

Prerequisites: MAE 431, 501, 537. Transition to turbulent flow, wall bounded and free turbulent shear flows, numerical methods for turbulent flow, turbulence modeling. (Lecture-problems 3 hours.)

638. Engineering Calculation Methods for Turbulent Flow (3)

Prerequisites: MAE 537 or consent of instructor. Introduction to numerical methods for the solution of boundary-layer equations. Solution of two-dimensional internal and external turbulent boundary-layer problems. Unsteady flows, calculation of stability and transition. (Lecture-problems 3 hours.)

639. Turbulence (3)

Prerequisites: MAE 532, 537. Nature of turbulent flows, dynamics of turbulence, statistical description, homogeneous turbulence and spectral dynamics characteristics of turbulent shear flows. (Lecture-problems 3 hours.)

642. Aeroelasticity (3)

Prerequisites: MAE 533, 576, or consent of instructor. Deformations of airplane structures under static and dynamic loads. Natural modes and frequencies of complex airplane structures. Analysis of static aeroelastic phenomena. Fundamental concepts of unsteady aerodynamics. Flutter of swept wings. Dynamic response phenomena. Computational aeroelasticity techniques. (Lecture-Problems 3 hours.)

663./763. Nonlinear Complex Structures and Mechanisms (3)

Prerequisite: MAE 563, or consent of instructor. (Master's students register in MAE 663, Ph.D. students register in MAE 763.) Analysis and optimization of frame, plate, and shell structures with automatic mesh generation via solid modeling, using I-DEAS, with automatic adaptation to popular software such as: STRUDL, NASTRAN, ANSYS, and ABAQUS. Sensitivity analysis. Generation and idealization of complex structures. Buckling analysis. Strength of structural elements, theory of yield and ultimate failure, stress concentrations. Non-linear stress analysis, non-linear material, large deflection, plastic deformation, non-linear buckling, composite structures. Thermoelasticity. Non-linear dynamic analysis, flutter analysis, random analysis. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis. (Lecture-problems 3 hours.)

669. Design of Composite Structures (3)

Prerequisite: MAE 522 or consent of instructor. Design concepts and guidelines of composite structures. Strength and stiffness design of composite laminates. Optimum design. Fatigue and creep of composite structures. Design of bolted and bonded joints. (Lecture-Problems 3 hours)

671. Random and Nonlinear Vibrations (3)

Prerequisites: MAE 576. Characterization and transmission of random vibration; failure due to random vibration. Classification of nonlinear problems; exact, graphical and approximate solutions, singular points, stability. (Lecture-problems 3 hours.)

672. Stress Analysis in Design (3)

Prerequisite: MAE 567 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.)

673. Theory of Elasticity and Plasticity (3)

Prerequisite: MAE 567. Equations of the mechanics of elastic bodies. Plane problem. Bending, torsion, and extension of Prismatic Bodies. Three-dimensional problem. Propagation of waves in elastic media. Approximate methods. Theory of plasticity. (Lecture-problems 3 hours.)

675. Modal Analysis (3)

Prerequisites: MAE 576. A thorough coverage of modal analysis techniques. Digital signal processing, including Fast Fourier Transform, Hilbert Transform, Structural dynamics theory, complex modes, state space, damping, nonsymmetries, modal parameter estimation techniques, and application of modal measurement methods suitable for practical vibration analysis problems. (Lecture-problems, 3 hours.)

676. Engineering Vibrations II (3)

Prerequisites: MAE 576. Free, forced, and self-excited vibrations. Modal analysis of continuous systems, including exact and approximate solutions. Rayleigh's quotient, Rayleigh-Ritz, Galerkin, collocations, Finite Element Methods. Vibrations in rotating and reciprocating machines. Response of structures to random and shock loads. Transfer function and frequency response methods. Vibration control of discrete systems and flexible structures, including large space structures. (Lecture-problems, 3 hours.)

677./777. Digital Simulation in Engineering (3)

Prerequisites: MAE 490A, 409. (Master's students register in MAE 677 or 777; Ph.D. students register in MAE 777). Program bank at an engineer's workstation. 3D-modeling and animation of real structures. Multimedia; Rapid Prototyping; Optimization of heat transfer-, fluids-, electrodynamic-, and structural problem solutions. Internal structure of a program bank. Dynamic data structure-, program structure-, and secondary storage control-statements. Status and location information of dynamic arrays, support of graphical interactive dialog. Maintenance and modification of a program bank. (Lecture-problems 3 hours.)

690./590. Advanced Topics in Mechanical and Aerospace Engineering (3)

Prerequisite: Graduate engineering standing or consent of instructor. Selected topics from recent advances in mechanical engineering. Course content will vary from year to year. Topics will be announced in the *Schedule of Classes*. Additional projects required for MAE 690. May be repeated for a maximum of six units with different topics. (Lecture-problems 3 hours.)

691. Directed Studies (1-3)

Study of information in engineering and scientific literature on a current topic under the direction of a faculty member. Preparation of a written report based on this reading.

697. Directed Research (1-6)

Prerequisite: Graduate standing in Mechanical and Aerospace Engineering. Theoretical and experimental problems in mechanical and aerospace engineering requiring extensive research and analysis. Submission of a final report and its approval by an evaluating committee are required. May be repeated to a total of 6 units. Not open to students who are enrolled in MAE 698.

698. Thesis (1-6)

Prerequisite: Enrollment is limited to students advanced to candidacy or eligible for it. Department Graduate Advisor must be consulted and a Thesis Permission form submitted for each semester of enrollment. Planning, preparation, and completion of a thesis in mechanical and aerospace engineering. May be repeated to a total of 6 units. Not open to students who are enrolled in MAE 697.

735./635. Computational Fluid Dynamics II (3)

Prerequisite: MAE 535. 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. Additional projects required for MAE 735. (Lecture-Problems 3 hours.)

763./663. Nonlinear Complex Structures and Mechanisms (3)

Prerequisite: MAE 563, or consent of instructor. (Master's students register in MAE 663, Ph.D. students register in MAE 763.) Analysis and optimization of frame, plate, and shell structures with automatic mesh generation via solid modeling, using I-DEAS, with automatic adaptation to popular software such as: STRUDL, NASTRAN, ANSYS, and ABAQUS. Sensitivity analysis. Generation and idealization of complex structures. Buckling analysis. Strength of structural elements, theory of yield and ultimate failure, stress concentrations. Non-linear stress analysis, non-linear material, large deflection, plastic deformation, non-linear buckling, composite structures. Thermoelasticity. Non-linear dynamic analysis, flutter analysis, random analysis. Additional projects required for MAE 763. Required topics for Ph.D. students: advanced numerical methods for flutter and random analysis. (Lecture-problems 3 hours.)

777./677. Digital Simulation in Engineering (3)

Prerequisites: MAE 490A, 409. (Master's students register in MAE 677 or 777; Ph.D. students register in MAE 777). Program bank at an engineer's workstation. 3D-modeling and animation of real structures. Multimedia; Rapid Prototyping; Optimization of heat transfer-, fluids-, electrodynamic-, and structural problem solutions. Internal structure of a program bank. Dynamic data structure-, program structure-, and secondary storage control-statements. Status and location information of dynamic arrays, support of graphical interactive dialog. Maintenance and modification of a program bank. Additional projects required for MAE 777. (Lecture-problems 3 hours.)

795. Advanced Directed Studies (4)

Prerequisite: MS or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics. 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. Course may be repeated to a maximum of 8 units.

797. Advanced Directed Research (4)

Prerequisite: MS or equivalent and formally admitted to the Ph.D. program in Engineering and Industrial Applied Mathematics. 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. Course may be repeated to a maximum of 8 units.

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 and references to relevant source material must be submitted. Only upon a positive recommendation may a student embark on a dissertation. Minimum of 4 units per semester. May be repeated until the dissertation is completed.

MARKETING

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

For all degree requirements see Business Administration. Students desiring information should contact the department office for referral to one of the faculty advisors.

Courses (MKTG)

Upper Division

300. Marketing (3)

Recommended preparation: ECON 200 or 201 or 300. Interdependence of elements in the firm's marketing system. Relation of marketing system to other activities in the firm. Firm's role in domestic and world marketing environments. Economic and social effects on marketing. Human behavior as it affects marketing, marketing communications, marketing information systems, marketing management problems and their solutions.

310. Retail Concepts and Policies (3)

An overview of the retail system. Retail decision making emphasized in relation to the following areas: store operation and management; merchandise assortment and pricing; store location and layout; advertising and sales communication; consumer analysis; retail information systems; retail accounting and control.

330. Mass Marketing Communications: Advertising (3)

Principles and practices of advertising. Social and economic importance of advertising and its relation to modern business organization; importance of an advertising plan; preparation of advertisements, copy and layout, media planning and application of information technology.

410. Services Marketing (3)

Prerequisite: MKTG 300. Applies marketing management techniques, marketing strategies, and processes for service evaluation and service quality improvement to the marketing of services in both profit and nonprofit organizations. Topics include the unique characteristics of services marketing, the management of services, the evaluation of service quality, techniques for service improvement, services marketing in global environments, and the use of marketing techniques to achieve service breakthroughs. Entrepreneurial and career opportunities in not-for-profit and profit oriented service organizations will also be explored.

420. Sales Management (3)

Prerequisite: MKTG 300. Managing the sales force; sales analysis; forecasting techniques; account and territory management; negotiations; integrating the personal computer into the sales function; computer simulation of the decision process in sales management.

430. Promotion Strategies (3)

Prerequisite: MKTG 300. Management of the promotional mix. Behavioral and data-based foundations for promotional strategies; budgeting; allocation of promotional resources; media models; integration of promotional strategies into the marketing mix; applications of information-based technologies and tools for analysis.

437. Internet Marketing (3)

Prerequisites: MKTG 300 suggested. The course covers Internet history; Internet technology and appliances; consumer behavior (domestic and International) on the Internet; business models; advertising and promotions; website design; pricing; and marketing research using the Internet. Quality and service are emphasized. News and recent developments in e-commerce are a focus of the class. Letter grade only (A-F).

465. Business To Business Marketing (3)

Prerequisite: MKTG 300. Analysis of industrial products, markets, institutions, and strategy. Comparison with consumer marketing. Emphasis on business-to-business negotiations and promotions. Integration and application of information technologies.

470. Marketing Research (3)

Prerequisites: MKTG 300, IS 310. Fundamentals of marketing and industrial research as an aid to problem-solving in business. Familiarization with current industry research efforts. Data collection, interviewing, and report-generation software. Analysis of data. Project, instrument and sampling designs.

480. International Marketing (3)

Prerequisite: MKTG 300. The study of marketing systems and marketing operations in various countries and multinational market groups. Impact of foreign environments and information technologies. In-depth international marketing studies and formulation of appropriate strategies.

481. International Marketing Management (3)

Prerequisites: MKTG 300 and MKTG 480. MKTG 481 provides students with a problem solving approach to assessing and exploiting global marketing opportunities. The course focuses on developing a strategic marketing plan for entering/maintaining foreign markets. The course will be taught as a special topics seminar. Letter grade only (A-F).

490. Consumer Behavior (3)

Prerequisite: MKTG 300. Application of psychological, sociological, anthropological, and economic theories to the understanding of consumer behavior. Consideration of personality, attitudinal, group, social class, subcultural, and demographic factors. Review of comprehensive models.

492. New Products/New Services (3)

Prerequisite: MKTG 300 or consent of instructor. Entrepreneurship; innovation management; the process and strategy of new product or services marketing; developing a business plan for a product or service introduction.

494. Marketing Management (3)

Prerequisites: MKTG 300; 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 and solution. Letter grade only (A-F).

495. Selected Topics (1-3)

Prerequisites: Consent of instructor and a GPA of 3.0 in marketing. Topics of current interest in marketing selected for intensive study. May be repeated for a maximum of 6 units. Topics will be announced in the Schedule of Classes.

497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, on Dean's List and a 3.0 GPA or higher in marketing. Individual projects, study and research of advanced nature in marketing.

Graduate Prerequisite Course**500. Marketing Concepts (3)**

Prerequisite: MBA standing required. Overview of the decision process in marketing. Consideration of functional areas and their interaction with the total operations of the firm. Application of information technology to the development of marketing strategy and planning.

Graduate Level**610. Seminar in Services Marketing (3)**

Prerequisite: MKTG 500. Supplements Marketing 500 by focusing on problems and strategies specific to service businesses. Problems commonly encountered in service businesses (such as inability to inventory, difficulty in synchronizing demand and supply, difficulty in controlling quality) are addressed. Strategies used by successful services marketers to overcome these difficulties will be discussed. The emphasis is on services in general rather than on any particular industry. However, concepts are illustrated using cases, examples, and exercises in diverse service industries such as banking, health care, retailing, financial planning, consulting, professional services, and communication. Letter grade only (A-F).

661. Seminar in Marketing Policies (3)

Prerequisite: MKTG 500. The solving of 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.

663. Seminar in Advertising Policies (3)

Prerequisite: MKTG 500. Discussion and analysis of advertising situations, objective setting, creative strategies, media strategies and models, and evaluation. Applications of mass communication theories and marketing databases.

665. Seminar in Marketing Research (3)

Prerequisites: 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.

666. Seminar in International Marketing (3)

Prerequisite: MKTG 500. Analysis of problems and opportunities in international marketing operations. Consideration of entry strategies, competitive strategies, domestication, and nationalization problems. Use of marketing information systems to evaluate opportunities and threats in foreign markets.

668. Seminar in Consumer Behavior (3)

Prerequisite: 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.

669. Seminar In Strategic Planning (3)

Prerequisite: 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.

695. Selected Topics (3)

Prerequisites: MBA standing, consent of instructor. Topics to be announced in the Schedule of Classes. Topics change each offering and, in the absence of significant duplication, the course may be repeated once for credit.

697. Directed Studies (1-3)

Prerequisites: MBA standing, consent of instructor and Department Chair. Individual study under the direction of the faculty.

MATHEMATICS AND STATISTICS

College of Natural Sciences and Mathematics

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog." For general information about the Mathematics and Statistics Department, visit our web site www.csulb.edu/depts/math.

Mathematics is fundamental to all scientific knowledge, including not only the traditional natural sciences but increasingly the social and economic sciences. The increasing applicability of mathematical methods has been enhanced and accelerated by the development of the computer. Mathematics is also a vital aid to critical and philosophical thinking and, at least to some, a thing of beauty in itself.

The Department of Mathematics and Statistics 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. Its various degree options are intended to provide the student with the knowledge and techniques needed for scientific, management and statistical applications, and also the theoretical understanding needed for teaching, graduate study and lifelong professional growth. Beyond these, it hopes to instill a spirit of curiosity and healthy skepticism towards mathematical statements and results – a willingness to ask “is this true?” and “why?”, and to try to find the answers.

Students desiring information should contact the Department Office for referral to the appropriate faculty advisor: Undergraduate Advisor, Graduate Advisor, Credential Advisor.

Concurrent and/or Summer Enrollment in Another College

Students who wish to take coursework in 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 enroll 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.

Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics’ 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 Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

Undergraduate Degree Programs

The Mathematics and Statistics Department offers four undergraduate degree programs in mathematical sciences.

Bachelor of Science in Mathematics (code MATHBS01) (120 units)

The student in this program is required to take a selection of fundamental courses in algebra, statistics and analysis. It is the most flexible program, in which the greatest number of electives may be chosen by the student. Elective upper division mathematics courses are available which meet the needs of students preparing for a variety of goals, including 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: ENGL 101 or 317; MATH 122, 123, 224, 233, 247; CECS 174; PHYS 151.

Upper Division: A minimum of 30 units of approved upper-division mathematics courses selected in consultation with a major advisor, to include MATH 341 or 347, 361A, 361B, 364A, 380 and 444 but not 370A or 370B. 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. For additional information and to obtain an advisor, contact the Department Office.

Option in Applied Mathematics (code MATHBS02) (120 units)

The student who is most interested in the applications of mathematics has a choice of two suboptions: the first concentrates on the applications in science and engineering while the second concentrates on the applications to economics and management. In both suboptions, courses are specified in the major areas of applied mathematics and in the field of application. This option prepares students for careers in business, industry or government or for graduate study.

Requirements

Suboption I: Area of application in Science and Engineering

Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174; PHYS 151 and 152; PHYS EE 211 or CE 205.

Upper Division: MATH 323, 361A, 361B, 364A, 364B, 380, 470. A minimum of 9 units from the following: MATH 381, 382, 423, 461, 463, 472, 479, 485. A minimum of 9 units from one of the following three groups:

- A. PHYS 310, 340A, 340B, 350, 410, 422, 450;
- B. EE 310, 370, 382, 460, 482;
- C. CE 335, 359, 437, 438, 458; MAE 371, 373.

Suboption II: Area of Application in Economics and Management

Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174; ECON 100 and 101, or ECON 300.

Upper Division: MATH 323, 361A, 361B, 364A, 380, 381, 382, 485. A minimum of 6 units from the following courses: MATH 364B, 423, 463, 470, 479, 480. A minimum of 15 units from one of the following two groups:

- A. ECON 310, 311 required; and 9 units selected from ECON 333, 410H, 411H, 420, 422, 433, 486
- B. ECON 333, MGMT 410 required; and 9 units selected from MGMT 411, 412, 413, 414, 426.

Option in Statistics (code MATHBS04) (120 units)

This option provides students with a foundation in statistical methods. The courses required ensure that the student understands both how the techniques are mathematically derived and how they are applied. Statistical analysis is an essential part of any scientific investigation. It is a vital tool in monitoring the quality of products and services and in forecasting. This option prepares students for interesting and rewarding careers in industry, government, and for graduate study in statistics and other quantitative fields.

Requirements

Lower Division: ENGL 101 or 317; MATH 122, 123, 224, 247; CECS 174.

Upper Division: A minimum of 34 units of upper-division mathematics courses to include MATH 323, 361A, 380, 381, 382, 480 and 483 but not MATH 370A or 370B. Six additional units must be taken in fields outside mathematics; these must be approved by a statistics advisor. The following courses are approved statistics option electives: BIOL 456, 465, 467; ECON 420, 481, 486; GEOG 400; PSY 315, 411, 412; SOC 455.

Option in Mathematics Education (code MATHBS03) (120 units)

This option is for students preparing to teach mathematics at the secondary school level. Completion of this Option will meet all course requirements for the Single Subject Credential Major Program in Mathematics. Thirty units of post-baccalaureate coursework are also required for the Clear Single Subject Teaching Credential in Mathematics (see Single Subject Teacher Education Program in the College of Education for more specific information about courses and other requirements).

Requirements

Lower Division: MATH 122, 123, 224, 233, 247; one of the following: ENGL 101 or 300 or 317; and one of the following sequences: PHYS 151 and 152; or PHIL 170 and 270; or eight units of a foreign language.

Upper Division: MATH 310, 341, 355, 361A* or 364A, 380, 381, 410, 444; MTED 301, 411; EDSS 300M; and 3 additional upper division Mathematics units excluding MATH 370A, 370B.

(* denotes preferred course)

Minor in Mathematics (code MATHUM01)

Requirements

The Minor in Mathematics is available to any student not majoring in Mathematics or Applied Mathematics.

The student must complete 23 or more semester units as follows:

MATH 122, 123, 224, 247, and 9 units of upper-division mathematics courses to include MATH 361A but not 370A. The student may replace MATH 123 and 224 by MATH 222 and one more 3 unit upper-division mathematics course (excluding MATH 370A) not used to meet the above upper-division requirements.

Minor in Applied Mathematics (code MATHUM02)

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: MATH 122, 123, 224, 247

Upper Division: MATH 323, 364A or 370A, 380 and one course selected from MATH 364B, 381, 382, 423, or 470.

The student may replace MATH 123 and 224 by MATH 222 and one more course from MATH 364B, 381, 382, 423, 470 not used to meet the above upper division requirements.

Master of Science in Mathematics (code MATHMS01)

Prerequisites

1. A bachelor's degree in mathematics from an accredited college or university; or
2. A bachelor's degree with a minimum of 24 upper division units in mathematics;
3. Courses must include MATH 247, 361A-B, 364A and 444, or their equivalents. Deficiencies will be determined by the Graduate Advisor after consultation with the student and study of transcript records.

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 passed the Writing Proficiency Examination (WPE) 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.

Requirements

1. A minimum of 30 graduate and approved (*) upper division units in mathematics including:
 - A. Three of the following courses Math 540A, 550A, 561A, or 562A.
 - B. Two additional courses selected from 540B, 550B, 561B, or 562B.
 - C. An additional 3 units of 500 level mathematics courses.
2. Complete one of the following:
 - A. Pass a comprehensive written examination in two areas of Pure Mathematics
 - B. Subject to the approval of the Graduate Committee of the Department of Mathematics, write a thesis in Mathematics and defend it orally.Specific requirements for passing of the comprehensive examinations can be found in the *Graduate Study Booklet* which is available from the Mathematics and Statistics Department.

Option in Applied Mathematics (code MATHMS02)

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, 323, 361A-B, 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 passed the Writing Proficiency Examination (WPE) 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 grade point average.

Requirements

1. A minimum of 30 graduate and upper division units approved by the graduate advisor and including:
 - A. MATH 479, 570, and 576;
 - B. At least 9 units, of which at least 3 must be numbered above 500, of applied mathematics courses selected from MATH 364B, 381, 382, 423, 470, 480, 485, 575, 577, 581, and 584. (A MATH 495 or 695 course whose content is applied mathematics may also be selected if it is approved by the Graduate Advisor prior to registration.)
 - C. At least 6 units of analysis courses selected from MATH 463, 472, 560A, 561A, and 562A or 461 but not both;
 - D. At least 18 units of graduate mathematics courses (numbered 500 or above) including any such courses used to meet requirements (A), (B), and (C) above and including at least 15 units other than MATH 697 or 698.
2. Complete one of the following:
 - A. Pass a comprehensive written examination in two subjects of Applied Mathematics;
 - B. Subject to the approval of the proposal by both the Applied Mathematics Committee and the Graduate Committee of the Department of Mathematics and Statistics, write a thesis in applied mathematics and defend it orally. Specific requirements for passing of the comprehensive examinations can be found in the *Graduate Study Booklet* which is available from the Mathematics and Statistics Department.

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 except MATH 1 and 10. An ELM test score of 400 or lower is required for MATH 1. Please contact the ELM coordinator in the Department of Mathematics and Statistics for details regarding the ELM test score.

Lower Division

1. Elementary Algebra and Geometry (3)
Prerequisite: Appropriate ELM score. Topics include arithmetic review, elementary algebra, and some basic geometry concepts. Cannot be taken for credit toward a university degree. Credit/No Credit grading only. (Lecture 3 hrs.) Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so.

10. Intermediate Algebra (3)

Prerequisite: Appropriate ELM score. Topics include polynomial, rational, and radical expressions and equations; rational exponents; solutions and graphs of linear, quadratic, and rational inequalities; systems of linear equations; operations, inverses, and graphs of functions; logarithmic and exponential functions and their applications. Cannot be taken for credit toward a university degree. Credit/No Credit grading only. (Lecture 3 hrs.) Not open to students who are exempt from the ELM or who have not yet taken the ELM but are required to do so.

101. Trigonometry (3)

Prerequisites: MATH 10 or equivalent. Trigonometric functions and applications. Complex numbers. (Lecture 3 hrs.) Not open to students with credit in MATH 117 or 122. (CAN MATH 8)

103. Mathematical Ideas (3)

Prerequisites: 3 years of high school mathematics, or the equivalent. Non-technical course surveying a variety of concepts in undergraduate mathematics. Topics will include elementary logic, algebra of sets, numeration systems, rational and real numbers, modular number systems, elementary combinatorics, probability and statistics. (Lecture 3 hrs.) Not open to students with credit in any MATH course numbered greater than 103, or the equivalent. (CAN MATH 2)

112. College Algebra (3)

Prerequisites: Three years of high school mathematics or equivalent. Study of algebra including linear and quadratic equations and systems; matrices and determinants; theory of equations; polynomial, exponential and logarithmic functions and their graphs; permutations and probability. Designed for students majoring in a life or social science. (Lecture 3 hrs.) Not open to students with credit in MATH 117 or 122.

114. Finite Mathematics (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. Combinatorial techniques and introduction to probability. Equations of lines and systems of linear equations, matrices, introduction to linear programming. (Lecture 3 hrs.) Not open to students with credit in MATH 233 or 380. (CAN MATH 12)

115. Calculus for Business (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. Functions, derivatives, optimization problems, graphs, partial derivatives. Lagrange multipliers, integration of functions of one variable. Applications to business and economics. Emphasis on problem-solving techniques. (Lecture 3 hrs.) Not open to students with credit in MATH 119A, 120 or 122. (CAN MATH 34)

117. Precalculus Mathematics (4)

Prerequisites: Three and one half years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10) and one half year of trigonometry (or MATH 101), or the equivalent. Polynomial, rational, exponential, logarithmic, and trigonometric functions. Complex numbers, conic sections, graphing techniques. (Lecture 3 hrs., Problem Session 2 hrs.) Not open to students with credit in MATH 122. (CAN MATH 16)

119A. Survey of Calculus I (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. 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 rather than theory. (Lecture 3 hrs.) Not open to students with credit in MATH 115, 120, or 122. (CAN MATH 30)

119B. Survey of Calculus II (3)

Prerequisite: MATH 119A or 122. Functions of several variables, partial derivatives, optimization. First order differential equations, second order linear homogeneous differential equations, systems of differential equations. Probability, random variables, difference equations. Introduction to vectors, matrices, Gaussian elimination, determinants. Applications to the life sciences. Emphasis on

problem solving rather than theory. (Lecture 3 hrs.) Not open to students with credit in MATH 123, or 224. (CAN MATH 32)

120. Calculus for Technology (4)

Prerequisites: Three and one-half years of high school mathematics including one year of geometry, two years of algebra, and one semester of trigonometry, or the equivalent. Real and complex numbers and functions; limits and continuity; differentiation and integration of functions of one variable. Introduction to calculus of several variables. Applications to science and technology. (Lecture 3 hrs., problem session 2 hrs.) Not open to students with credit in MATH 122.

122. Calculus I (4)

Prerequisite: A grade of "C" or better in MATH 117 or four years of high school mathematics including two years of algebra, one year of geometry, one half year of trigonometry, and one additional senior-level course. Limits. Continuous functions. Derivatives and applications including graphing, related rates, and optimization. Transcendental functions. L'Hospital's Rule. Antiderivatives. Definite integrals. Area under a curve. (Lecture 3 hrs., problem session 2 hrs.) (CAN MATH 18)

123. Calculus II (4)

Prerequisite: A grade of "C" or better in MATH 122. Applications of the integral. Techniques of integration. Infinite series including convergence tests and Taylor series. Parametric equations. Polar coordinates. Introduction to differential equations. (Lecture 3 hrs., problem session 2 hrs.) Not open to students with credit in MATH 222. (CAN MATH 20)

180. Elementary Statistics (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. Nature of statistics and probability theory, description of sampled data. Random sampling, normal distribution assumption and its consequences; tests of hypotheses and estimation; correlation, regression, analysis of variance. Non-parametric methods. (Lecture 3 hrs.) (CAN STAT 2)

222. Intermediate Calculus (4)

Prerequisite: A grade of "C" or better in MATH 122. Integration by parts and by partial fractions. Numerical integration. Improper integrals. Infinite series including series convergence tests and Taylor series. Vectors. Partial derivatives and directional derivatives. Double integrals. Introduction to differential equations. Enrollment restricted to CECS majors. Not open to students with credit in MATH 123. Letter grade only (A-F). (Lecture 3 hrs., Activity 2 hrs.)

224. Calculus III (4)

Prerequisite: A grade of "C" or better in MATH 123 or 222. Vectors and three-dimensional analytic geometry. Partial derivatives and Lagrange multipliers. Multiple integrals. Vector calculus, line and surface integrals. Green's Theorem, Stokes' Theorem and the Divergence Theorem. (Lecture 3 hrs., problem session 2 hrs.) (CAN MATH 22)

233. Fundamental Concepts for Advanced Mathematics (3)

Prerequisite: A grade of "C" or better in MATH 123 or 222. Fundamentals of logic and set theory, counting principles, functions and relations, induction and recursion, introduction to probability, elementary number theory, congruences. (Lecture 3 hrs.)

247. Introduction to Linear Algebra (3)

Prerequisite: MATH 222 or prerequisite or corequisite: MATH 224. 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.) (CAN MATH 26)

297. Directed Study (1-3)

Prerequisite: Consent of instructor. Designed 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.

Mathematics Courses (MATH)

Upper Division

310. History of Early Mathematics (3)

Prerequisite: MATH 123 or 222. History of mathematics through the seventeenth century, including arithmetic, geometry, algebra, and the beginnings of calculus. Interconnections with other branches of mathematics. (Lecture 3 hrs.)

323. Introduction to Numerical Analysis (4)

Prerequisites: MATH 222 or 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.)

330. Introduction to Mathematical Logic (3)

Prerequisite: MATH 123 or 222. Symbolic methods of propositional calculus, general theory of inference, transition from formal to informal proofs, theory of definition, elementary set theory and axiomatic methods. (Lecture 3 hrs.)

340. Theory of Algebraic Equations (3)

Prerequisite: MATH 123 or 222. Complex numbers, general theorems on algebraic equations, the discriminant, location and approximation of roots of equations, solution of the cubic and quartic equations; determinants and their application to simultaneous linear equations, symmetric functions. (Lecture 3 hrs.)

341. Number Theory (3)

Prerequisites: MATH 123 or 222, and at least one of MATH 233, 247, 310; recommended, 233 or 247. Divisibility, congruences, number theoretic functions, Diophantine Equations, primitive roots, continued fractions. Students will be asked to write valid mathematical proofs. (Lecture 3 hrs.)

347. Linear Algebra (3)

Prerequisites: MATH 233 and 247. An in-depth study of linear transformations, vector spaces, inner product spaces, quadratic forms, similarity and the rational and Jordan canonical forms. Students will be asked to write valid mathematical proofs. (Lecture 3 hrs.)

355. College Geometry (3)

Prerequisite: MATH 247. Transformations, motions, similarities, geometric objects, congruent figures, the axioms of geometry, and additional topics in Euclidean and non-Euclidean geometry. Students will be asked to write valid mathematical proofs. (Lecture 3 hrs.)

361A. Introduction to Mathematical Analysis I (3)

Prerequisites: MATH 222 or 224, and MATH 233 or 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. Students will be asked to write valid mathematical proofs. (Lecture 3 hrs.)

361B. Introduction to Mathematical Analysis II (3)

Prerequisite: MATH 361A. Riemann integration. Topological properties of the real number line. Sequences of functions. Metric spaces. Introduction to the calculus of several variables. Students will be asked to write valid mathematical proofs. Lecture 3 hrs.)

364A. Ordinary Differential Equations I (3)

Prerequisites: MATH 222 or 224, and prerequisite or 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 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: MATH 222 or 224. First order ordinary differential equations, linear second order ordinary differential equations, numerical solution of initial value problems, Laplace transforms, matrix algebra, eigenvalues, eigenvectors, applications. (Lecture 3 hrs.) Not open for credit to mathematics majors.

370B. Applied Mathematics II (3)

Prerequisite: MATH 370A. Arithmetic of complex numbers, functions of a complex variable, contour integration, residues, conformal mapping; Fourier series, Fourier transforms; separation of variables for partial differential equations. Applications. (Lecture 3 hrs.) Not open for credit to mathematics majors.

380. Probability and Statistics (3)

Prerequisite: MATH 222 or 224. Frequency interpretation of probability. Axioms of probability theory. Discrete probability and combinatorics. Random variables. Distribution and density functions. Moment generating functions and moments. Sampling theory and limit theorems. (Lecture 3 hrs.)

*381. Mathematical Statistics (3)

Prerequisites: MATH 247 and 380. Estimation and hypothesis testing. Maximum likelihood and method of moments estimation. Efficiency, unbiasedness, and asymptotic distribution of estimators. Neyman-Pearson Lemma. Goodness-of-fit tests. Correlation and regression. Experimental design and analysis of variance. Nonparametric methods. (Lecture 3 hrs.)

*382. Random Processes (3)

Prerequisites: MATH 247 and 380. Further topics in probability. Markov processes. Renewal theory. Random walks. Queueing theory. Poisson processes. Brownian motion. (Lecture 3 hrs.)

410. History of Modern Mathematics (3)

Prerequisites: MATH 247, 310 and at least three out of MATH 233, 341, 355, 361A, 380. The history of mathematics from the seventeenth century through the first half of the twentieth century. Development of calculus, analysis, and geometry during the time period. Other topics discussed may include the history of probability and statistics, algebra and number theory, logic and foundations. (Lecture 3 hrs.)

*423. Intermediate Numerical Analysis (3)

Prerequisites: MATH 247 and 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 247 and at least one of MATH 341 or 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. Further topics in groups, rings and fields as time permits. Students will be asked to write valid mathematical proofs. (Lecture 3 hrs.) Not open to students with credit in MATH 444A.

*451. Differential Geometry (3)

Prerequisite: MATH 364A or 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.)

*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.) Not open to students with credit in MATH 562A.

*463. Multivariable Calculus (3)

Prerequisites: MATH 224, 247, and 361B. Topology of Euclidean spaces. Partial derivatives. Derivatives as linear transformations. Inverse and implicit function theorems. Jacobians, vector calculus, Green's and Stokes' theorems. Variational problems. (Lecture 3 hrs.)

***470. Introduction to Partial Differential Equations (3)**

Prerequisite: MATH 370A or 364A. 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 370A. Theory of Fourier series and Fourier transforms with applications to Physics and Engineering. Square integrable functions and Parseval's and Plancherel's identities. Convolution. The Fourier transform in one and several dimensions, with applications to partial differential equations. Introduction to distribution theory, the discrete Fourier transform and fast Fourier transforms. (Lecture 3 hrs.)

***479. Mathematical Modeling (3)**

Prerequisites: MATH 247; 364A or 370A; and two additional upper-division mathematics courses or consent of instructor. Application of mathematics to develop models of phenomena in science, engineering, business and other disciplines. Evaluation of the benefits and limitations of mathematical modeling. (Lecture 3 hrs.)

***480. Regression Analysis (3)**

Prerequisites: MATH 247 and 380, prerequisite or corequisite MATH 381. 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. Use of statistical software for data analysis. (Lecture 3 hrs.)

***483. Multivariate Statistical Analysis (3)**

Prerequisites: MATH 381. Potential topics include: discriminate analysis, principal components, factor analysis, cluster analysis, logistic regression, canonical correlation, multidimensional scaling, and some nonlinear techniques. Statistical software will be used. (Lecture 3 hrs.) Letter grade only (A-F).

***485. Mathematical Optimization (3)**

Prerequisites: MATH 247 and at least one of MATH 323, 347 or 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)

Prerequisites: Consent of instructor. Challenging problems from many fields of mathematics, taken largely from national and worldwide collegiate and secondary school competitions. Students will be required to participate in at least one national competition. May be repeated to a maximum of three units of credit. (Lecture—discussion 1 hr.)

***495. Topics in Modern Mathematics (3)**

Prerequisite: Consent of instructor. Topics of current interest from mathematics literature.

***497. Directed Studies (1-3)**

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 three units of credit.

Graduate Level

540A. Abstract Algebra I (3) F

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. (Lecture 3 hrs.)

540B. Abstract Algebra II (3) S

Prerequisite: MATH 540A. Modules; Field extensions; Finite fields; Splitting fields, Galois theory. Commutative ring theory including chain conditions and primary ideals. Topics of current interest. (Lecture 3 hrs.)

550A. Topology I (3) S

Prerequisite: MATH 361B. Fundamentals of point-set topology: metric spaces and topological spaces; bases and neighborhoods; continuous functions; subspaces, product spaces and quotient spaces; separation properties, countability properties, compactness, connectedness; convergence of sequences, nets and filters. (Lecture 3 hrs.)

550B. Topology II (3) F

Prerequisite: MATH 550A. Further topics in point-set topology: local compactness, paracompactness, compactifications; metrizability; Baire category theorem; homotopy and the fundamental group. Topics may also include uniform spaces, function spaces, topological groups or topics from algebraic topology. (Lecture 3 hrs.)

560A. Functional Analysis I (3) F

Prerequisites: MATH 361B and 247. 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; convergence in normed spaces, conjugate spaces, and spaces of operators; Banach Fixed Point theorem; Hilbert spaces; selected applications. (Lecture 3 hrs.)

560B. Functional Analysis II (3) S

Prerequisite: MATH 560A or consent of instructor. Spectral theory of operators on normed spaces; special operators; elementary theory of Banach algebras; selected topics from applied functional analysis. (Lecture 3 hrs.)

561A. Real Analysis I (3) S

Prerequisite: MATH 361B. The 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. (Lecture 3 hrs.)

561B. Real Analysis II (3) F

Prerequisite: MATH 561A or consent of instructor. L^p spaces of functions. Holder's inequality. Minkowski's inequality. Norm convergence, weak convergence and duality in L^p . Further topics from convergence of Fourier series, measure-theoretic probability, the Radon-Nikodym theorem; other topics depending on time and interest. (Lecture 3 hrs.)

562A. Complex Analysis I (3) F

Prerequisite: MATH 361B. (MATH 461 is recommended.) 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. (Lecture 3 hrs.)

562B. Complex Analysis II (3) S

Prerequisite: MATH 562A. Multiple-valued functions, Riemann surfaces; analytic continuation; maximum modulus theorem; conformal mapping with applications, integral functions; gamma function, zeta function, special functions. (Lecture 3 hrs.)

570. Partial Differential Equations (3) S

Prerequisites: MATH 361B, 364A and one of 370B, 470, 472. 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.)

575. Calculus of Variations (3) S

Prerequisites: MATH 364A or 370A, and MATH 361B. Classical theory. Necessary and sufficient conditions for extrema of multiple integrals. Hamilton-Jacobi theory. Applications to eigenvalue problems. Direct methods. Pontryagin maximum principle. Principle of optimality. (Lecture 3 hrs.)

576. Numerical Analysis (3) F

Prerequisites: MATH 323, 361B and 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. (Lecture 3 hrs.)

Mathematics Courses (MATH)

577. Numerical Solution of Partial Differential Equations (3) S

Prerequisite: MATH 423 or MATH 576 or consent of instructor. A survey of finite difference methods for solving hyperbolic, parabolic, and elliptic PDE'S, with analysis of their accuracy, convergence, and stability properties. Topics include selected initial-value and boundary-value problems, characteristics, domain of dependence, von Neumann's method of stability analysis, the matrix method of stability analysis, and solution of large scale sparse linear systems by direct and iterative methods. Introduction to the finite element method. (Lecture 3 hrs.)

580. Statistical Inference (3) F

Prerequisites: MATH 381 or consent of instructor. Properties of a random sample, convergence in probability, the law of large numbers, sampling from the normal distribution, the central limit theorem, principles of data reduction, the likelihood principle, point estimation, Bayesian estimation, methods of evaluating estimators, hypothesis testing, decision theory, confidence intervals. Letter grade only (A-F). (Lecture 3 hrs.)

581. Experimental Design and Analysis (3) F

Prerequisite: MATH 381 or consent of instructor. The 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. (Lecture 3 hrs.)

583. Survey Sampling (3)

Prerequisites: MATH 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).

584. Statistical Quality Control (3) F

Prerequisite: MATH 381 or consent of instructor. An introduction to the methods of statistical quality control. Topics covered include control charts, acceptance sampling, process capability analysis, and some aspects of experimental design. (Lecture 3 hrs.)

585. Nonparametric Statistics (3)

Prerequisites: MATH 480 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).

586. Data Mining (3) S

Prerequisites: MATH 480 or consent of instructor. Basics of data mining algorithms with an emphasis on applications to industry. Prediction and classification techniques such as Multivariate Adaptive Regression Splines (MARS), Classification and Regression Trees (CART), neural networks, and other methods. Several software packages will be utilized. Letter grade only (A-F). (Lecture 3 hrs.)

695. Seminar in Mathematics (3) F,S

Prerequisite: Consent of instructor. Presentation and discussion of advanced work, including original research by faculty and students. Topics to be announced in the *Schedule of Classes*. May be repeated to a total of six units.

697. Directed Studies (1-3) F,S

Prerequisite: Consent of instructor. Research on a specific area in mathematics. Topic for study to be approved and directed by advisor in the Mathematics and Statistics Department.

698. Thesis (2-4) F,S

Prerequisite: Completion of at least one 500 and/or 600 level mathematics course. Formal report of research or project in mathematics.

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

105. Activity-Based Probability and Statistics for Elementary and Middle School Teachers (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. 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. Algebraic thinking will be used throughout the course. Enrollment limited to students seeking a Multiple Subject teaching credential and/or Supplementary Authorization in Introductory Mathematics. Not open for credit to Mathematics majors. (Lecture 2 hrs., Activity 2 hrs.) Letter grade only (A-F).

110. The Real Number System for Elementary and Middle School Teachers (3)

Prerequisites: Three years of high school mathematics including algebra, geometry, and intermediate algebra (or MATH 10), or the equivalent. Introduction to problem solving processes and strategies. Development and analysis of the structure and operations of the real number system. Concept and process development using appropriate models, manipulatives, and activities. Not open to students with C or better in MATH 110. Enrollment limited to students seeking a Multiple Subject teaching credential and/or Supplementary Authorization in Introductory Mathematics. Not open for credit to Mathematics majors. (Lecture 2 hrs., Activity 2 hrs.)

211. Geometry and Measurement for Elementary Teachers (3)

Prerequisites: "C" or better in MTED 110 and one year of high school geometry. Problem solving with particular focus on making tables and patterning, informal geometry, congruence, similarity, constructions, transformations, tessellations, and measurement involving both English and Metric units in 1, 2 and 3 dimensions. Computer language, such as Logo and/or geometry drawing utility, such as Geometer's Sketchpad, will be integrated into the course. Emphasis will be on hands-on modeling of real-world geometric situations. Not open to students with "C" or better in MATH/MTED 111. Enrollment limited to students seeking a Multiple Subject teaching credential and/or Supplementary Authorization in Introductory Mathematics. Not open for credit to Mathematics majors. (Lecture 2 hrs., Activity 2 hrs.)

Upper Division

301. Computer Applications in Mathematics for Teachers (3)

Prerequisites: One year of high school geometry and one of MTED 110 or MATH 122. Formerly MTED 278. Course designed for pre-service or in-service teachers. Introduction to computer technology and its applications to mathematics classrooms; software evaluation; survey of teacher tools such as spreadsheets, databases, and the internet; e-mail, computer-based collaborative tools and applications using the Internet; mathematics using technology; introduction to programming; issues about computer and other technology use in the schools; integration of computer technology into the mathematics classroom. This course satisfies the California Level I teaching credential computer technology standard. Open for credit to Single Subject mathematics and Multiple Subject credential students only. (Lecture 2 hrs., Activity 2 hrs.) Not open for students with credit in MATH/MTED 278.

311. Topics of Enrichment in Mathematics for the Elementary Teacher (3)

Prerequisites: MTED 110 and either MTED 211 (formerly MTED 111) or MATH 122 or consent of instructor. Formerly MATH 311.

Enrichment topics in mathematics for the elementary teacher, such as theory of arithmetic, numeration systems, elementary logic, mensuration, metric system, topological equivalence, probability and statistics and network theory. Not open to students with credit in MATH 311. (Lecture 3 hrs.) Not open for credit to mathematics majors.

312. Geometry and Measurement for Mathematics Specialists in Elementary and Middle Schools (3)

Prerequisites: MTED 110 and one year of high school geometry. Focus on exploration, conjecture and justification of geometric relationships and applications that are relevant to teaching geometry through the middle grades. Topics include: problem solving, informal geometry, the nature of proof, introduction to non-Euclidean geometry, congruence, similarity, constructions, transformations, tessellations, and measurement involving both English and Metric units in 1, 2 and 3 dimensions. Technology involving a geometry drawing utility, such as Geometer's Sketchpad, will be used extensively in the course. (Lecture 2 hrs., activity 2 hrs.) Letter grade only (A-F). Not open for credit to Mathematics majors.

315. History of Mathematics for Mathematics Specialists in Elementary and Middle Schools (3)

Prerequisites: MTED 110 and MTED 312. This course develops mathematics ideas throughout history with an orientation toward the various civilizations and cultures that contributed those ideas. The course covers the history of most areas of mathematics relevant to the K-9 curriculum, especially arithmetic, algebra, geometry, and their interrelationships. The cross-cultural view of mathematics will be emphasized. Also included are historical origins of more modern subjects such as statistics and probability, cryptography, and other applied mathematics. (Lecture 3 hrs.) Letter grade only (A-F). Not open for credit to Mathematics majors.

320. Number Theory and Algebraic Structures for Mathematics Specialists in Elementary and Middle Schools (3)

Prerequisite: MTED 110. Topics include divisibility, primes and composites, prime factorizations; proofs and problem-solving with these topics; groups, rings, and fields, especially congruence modulo n and p and other examples; and other topics within number theory and modern algebra that are relevant to the mathematics curriculum in elementary and middle schools. (Lecture 3 hrs.) Letter grade only (A-F). Not open for credit to Mathematics majors.

325. Functions, Models and Concepts of Calculus for Mathematics Specialists in Elementary and Middle Schools (3)

Prerequisites: MTED 110 and MTED 312. Functions, families of functions and ways to represent them, such as numeric, symbolic, graphical, verbal; sequences and sums. Intuitive development of the concepts of limit, continuity, derivative, integral and applications, including differential equations. Algebraic methods will be emphasized in the context of learning calculus. Technology will be used throughout the course, particularly graphing calculators. Not open for credit to Mathematics majors. (Lecture 3 hrs.) Letter grade only (A-F).

402. Problem Solving Applications in Mathematics for Elementary and Middle School Teachers (3)

Prerequisites: "C" or better in both MTED 110, either MTED 211 (formerly MTED 111) or MTED 312 or the equivalent and a course in Critical Thinking. Focusing on problem solving processes and strategies, this course will bring together and apply content from many areas of mathematics and make use of computer technology and/or graphing calculators. The course will illustrate problem solving as a framework for developing questioning strategies that foster understanding of algebra and geometry. Topics include real-world applications involving the real number system, algebra, number theory, geometry, measurement, probability and statistics. Enrollment limited to students seeking a Multiple Subject teaching credential. 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, 341, 355, 380, 410, and 444, and EDSS 300M (MATH 410 and EDSS 300M may be taken concurrently), or consent of the instructor. Examination and analysis of topics and issues in the secondary school mathematics curriculum from an advanced standpoint. Topics will include problem solving, mathematical connections, mathematical structures, mathematical conjecture and proof, mathematical communication at various levels, use of manipulatives and technology, assessment alternatives. Instructional experiences involving mathematics required in college-age settings. Observation/interview experience involving mathematics required in non-educational settings. Portfolio assemblage required. Intended for students preparing to enter the Single Subject Credential Program. Not open to students with credit in MATH 411. (Lecture 2 hrs., activity 3 hrs.)

MEDIEVAL AND RENAISSANCE STUDIES

College of Liberal Arts

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Frank Fata (Comparative Literature)

Kristine K. Forney (Music)

Edward A. Gosselin (History)

J. Charles Jernigan (Comparative Literature)

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Stanley Jones (Religious Studies)

Eileen Klink (English)

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Julia Miller (Art)

Assistant Professors

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(Romance, German, Russian Languages and Literatures)

Maria Hibbets (Religious Studies)

Timothy Keirn (History)

Lloyd Kermode (English)

Lawrence Nolan (Philosophy)

Martine van Elk (English)

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The Center for Medieval and Renaissance Studies sponsors activities that explore the complex culture of the Middle Ages and the Renaissance. It sponsors a regular lecture series featuring speakers from on- and off-campus. Occasionally special seminars are held to commemorate a person, place, or event of significance from these periods; recent topics have included Richard III, Florence and Rome 1200-1600, The Sensual Culture of Venice, 1066 And After That, and La Felicissima Armada. The Center also offers courses on a wide range of medieval and Renaissance issues, supports faculty research both here and abroad, and is associated with most of the local and national societies relevant to research in these fields.

In addition, the Center has established an interdisciplinary program which offers students interested in these periods the opportunity to pursue a course of study leading to a Certificate in Medieval and Renaissance Studies. Courses which are used to meet the certificate requirements may be counted, where applicable, toward the General Education requirements, the major, and minor requirements.

Interested students should apply to Directors, MHB 301 or 313, or to members of the supporting faculty for further information.

Minor in Medieval and Renaissance Studies (code HISTUM04)

The Minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of the Middle Ages and Renaissance. The minor's flexible program of study is ideal for students interested either in intellectual enrichment or professional development in their major. Interested students should contact the program's advisor prior to or during the first semester of taking classes towards the Minor.

The Minor consists of a minimum of 21 units selected in consultation with the program advisor in addition to demonstrating competence in a foreign language appropriate to the area of concentration. The 21 required units include 12 units of core classes in History, Literature and Art History, along with 9 electives chosen from the courses in these disciplines as well as from Music, Political Science, Religious Studies and Theatre.

Requirements

Core:

1. Six units of one of the following combinations: HIST 316 and 317; or HIST 317 and 332; or HIST 332 and 333.
2. Three units of an upper-division course in Literature: C/LT 349, 414I, 422I, 430, 431, 432, 449; ENGL 363, 426, 431, 451, 452, 453, 461, 462, 463, 468A, 469C, 469K, 469M, 483, 498J; FREN 470, 471; GERM 315; GK 490, 499; LAT 490, 499; SPAN 330.
3. Three units of an upper-division course in Art History: AH 408, 409, 410, 423, 424, 425, or 497.

Nine additional units chosen from the courses listed above (without repeating the required core) and the following: HIST 318, 351, 353, 400I, 414I, 495, 499; MUS 360, 400R, 400S, 496; POSC 301; RGR 450; R/ST 314, 331I, 459, 471I, 490, 494, 495; THEA 490.

Certificate in Medieval and Renaissance Studies (code CLSCCT01)

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 selected will be Latin, but with the consent of the advisor, Anglo-Saxon, French, German, Italian, Spanish or Greek 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 317, 317 and 332, or 332 and 333. One of the following literature courses for three units: C/LT 431, 432; ENGL 451, 452. One of the following Art History courses for three units: ART 409, 410, 423, 424, 425.
B. Nine units selected from the following courses (without repeating the required core): AH 408, 409, 410, 423, 424, 425, 497†; C/LT 349†, 414I, 422, 430, 431, 432, 450†; ENGL 363, 426, 431, 451, 452, 462, 463, 468A, 469†, 483, 498†; FREN 470, 471; GERM 315; GK 490†, 499†; HIST 301, 316, 317, 318, 331, 332, 333, 341A, 351, 353, 411, 431, 432, 490†, 495†, 499†; LAT 490†, 499†; MUS 360; PHIL 403; POSC 301, 302; R/ST 314, 331I, 471I, 472I, 490†, 495†; SPAN 330; THEA 490†. Graduate courses: ART 611†; ENGL 550, 551, 652, 681; FREN 604, 685; GERM 511; HIST 510†, 611, 631†; MUS 560, 561; PHIL 630†, 690†; SPAN 525, 535, 538; THEA 621†.
C. Three units of directed research on a medieval or Renaissance topic in any of the following courses: AH 497, C/LT 499, ENGL 499, FREN 499, GERM 499, GK 499, HIST 498, MUS 499, R/ST 499, PHIL 499, SPAN 499, THEA 498. Graduate courses: ART (history) 697, ENGL 697, FREN 697, GERM 652, 697, HIST 697, PHIL 697, SPAN 697, THEA 694.

†With an approved medieval or Renaissance topic; certain special studies topics may be repeated for credit with approval.

MANAGEMENT AND HUMAN RESOURCES MANAGEMENT

College of Business Administration

Department Chair

Philip S. Chong

Department Office

College of Business Administration (CBA) 321

Telephone

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Faculty

Professors

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Phillip S. Chong

Sal Kukalis

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Roger R. Stanton

Associate Professor

Josh A. Arnold

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Ted Shore

Assistant Professor

Linda O'Hara

Sabine Reddy

Judy Strauss

Tom Sy

Jun Yan

Administrative Support Coordinator

Debi Cannon-Rath

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For all degree requirements see Business Administration.

Management Courses (MGMT)

300. Principles of Management (3)

Prerequisite: Recommended: IS 310. Analysis of principles and theories of management, organization theory, planning and control techniques. Consideration will be given to management of the overall organization and the production/operations systems of organizations. Letter grade only (A-F).

326. Management and Society (3)

Issues of concern to business managers in dealing with the social environment. Analysis of business responsibility to stockholders, employees, customers, the government, and society. Issues include: profits, consumerism, product safety, pollution, government regulation, and social accountability. Letter grade only (A-F).

*405. International and Comparative Management (3)

Prerequisites: MGMT 300. Analysis of the functions of management in international business; comparative management studies, and the impact of the environment on management performance. Letter grade only (A-F).

406. International Business Policy (3)

Prerequisite: MGMT 300. An integrative course designed to provide insight into the scope, complexity, and problems of formulating and implementing multinational strategies and policies. Will

integrate such areas of study as international economics, economic development, international marketing, international finance, and multinational planning, organization, and control. Will also cover such topics as framework of international transactions, economic and political integration, the competitiveness of countries, relations with host societies, and country studies. Cases and research projects will be used extensively. Letter grade only (A-F).

*410. Materials Management (3)

Prerequisites: MGMT 300. Analysis of basic frameworks for managing material flows into, within, and out of organizations. Study of inventory models for independent demand items, material requirement planning, and distribution systems. Heavy emphasis on learning supported by MRP II tools and other computer resources. Letter grade only (A-F).

411. Production Planning (3)

Prerequisites: MGMT 300. Analysis of demand management and production planning problems. Study of forecasting tools and techniques using available computer resources. Concepts of aggregate planning, master scheduling, and capacity planning will be examined using the framework of an MRP II system. Letter grade only (A-F).

412. Production Control (3)

Prerequisites: MGMT 300. Analysis of tools and techniques for scheduling, controlling, and evaluating manufacturing activities at the shop-floor level. Shop order release, dispatching, priority control, queue management, and input/output monitoring will be simulated using MRP II software. Job sequencing and scheduling techniques will be examined and available software and simulations employed. Just-in-time production, Kanban control, and optimized-production-technology (OPT) will be presented. Letter grade only (A-F).

413. Managing Quality for Productivity (3)

Prerequisites: MGMT 300 and recommended IS 310. Analysis of the relationship between productivity and quality. Examination of the quality-assurance function, statistical quality control, and lot inspection. Study of the relationship between productivity improvement, product quality, and manufacturing strategy. Letter grade only (A-F).

414. Purchasing Management (3)

Prerequisites: MGMT 300. Analysis of functions, principles, and tools of purchasing management. Study of the relationships of purchasing to other management functions. Use of MRP II systems to simulate purchasing decisions, monitor performance, and track costs. Letter grade only (A-F).

421. Entrepreneurship and New Venture Creation (3)

Prerequisites: MGMT 300. Learn how to start a new business. Be an entrepreneur in a free enterprise environment, or an entrepreneur in an existing organization. You will use state-of-the-art theory to plan and evaluate business startups. You will test your ideas with successful entrepreneurs and will learn how to do your own business plan. Letter grade only (A-F).

425. Business Strategy and Policy (3)

Prerequisites: ACCT 310 or 320, MGMT 300, MKTG 300, FIN 300. This course is designed to integrate and apply knowledge, theories and techniques derived from the study of business disciplines. The case method and business simulations are used to formulate business strategies and plans. Written reports are required. Letter grade only (A-F).

426. Management and Information Systems (3)

Prerequisites: Senior standing. Evaluations of concepts for evaluation and design of decision support systems, management decision models, socio-technical strategies for implementing information system changes. Letter grade only (A-F).

***430. Project Management (3)**

Prerequisite: MGMT 300. This course describes how ideas are selected for projects and how the projects are implemented. It explores the role of the project team member, the project manager, and the various ways projects can be organized and planned. The project implementation tasks of budgeting, scheduling, monitoring and controlling are explored including computerized network models and project management software packages. Final project analysis and termination are addressed. Letter grade only (A-F).

***454. Organization Theory (3)**

Prerequisite: MGMT 300. Examination of the design and adaptation of organizations. Tools for analysis and design are developed from the general principles and theory of organization and the forces from inside and outside the organizations that help to shape it. The structure of organization is explored from many perspectives and functions. The organization is viewed as a goal implementation device, a system of authority, a political system, and an information and coordination device. Cases and computer simulations of real business and non-profit organizations may be used as appropriate. Letter grade only (A-F).

455. Managerial Decision Making Processes (3)

Prerequisites: MGMT 300 and either HRM 360 or 361. Managerial decision making is presented as a complex process that involves setting objectives, identifying and evaluating alternative courses of action, choosing and implementing the decision, and controlling results. Recent research is used to explain the influence of task, people, organization, and environment on the decision process. This course will help students become better decision makers by improving their understanding of decision making processes. Letter grade only (A-F).

495. Selected Topics (1-3)

Prerequisites: GPA of 3.0 in HRM courses, plus consent of instructor. Topics and issues of critical importance to human resource management. Topics for each semester are announced in Schedule of Classes. Focus on the development of critical thinking, writing, and speaking skills. May be taken up to 6 units.

497. Directed Studies (1-3)

Prerequisites: Consent of Instructor, Department Chair, and 3.0 GPA or higher. Individual projects, research, and study of advanced nature in management. Letter grade only (A-F).

Graduate Prerequisite Course

500. Business Policies, Operations and Organizations (3)

Prerequisite: MBA standing. Recommended preparation: IS 310 or 410. 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).

Graduate Division

510. Management for Engineers (3)

The transition of the engineer to manager; planning and organizing technical activities; selecting and managing projects, selecting and managing teams, techniques of control and communication. Not open to MBA students.

511. Project Management (3)

Theory and philosophies of project management. The problems of assembling an effective team and the control issues, techniques, and tools appropriate for the preproject proposal stage to program conclusion are examined. Not open to MBA students.

512. Engineering Management Information Systems (3)

Study of the development and management information systems used by middle and higher management of technological and scientific organizations in the control of many facets of their function. Not open to MBA students.

513. Cases in Engineering Management (3)

A course that permits application of newly acquired technical skills. It involves cases from engineering, technical or scientific

programs of industrial firms or government agencies. The cases may be from new ventures as well as mature firms in both product and process development. Not open to MBA students.

541. Industrial Logistics (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent. Systems analysis and synthesis of the general logistics system containing the marketing, production, and transportation activities. Emphasis placed on definition of system components of outputs, activities and inputs and the specification and quantification of the major functional relationships interrelating these components.

542. Enterprise Structure and Operation (3)

Prerequisites: MBA standing and MGMT 500 or equivalent. Systems analysis and synthesis of the general enterprise system composed of the logistics, money, information, talent and decision sub-systems. Emphasis on the examination of the components of each of the sub-systems and how they interrelate in the operation of the total enterprise. Systems approach of defining outputs, activities and inputs is used as the vehicle for analysis. Letter grade only (A-F).

543. International Business Policy (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent, 9 hours recommended of 500/600 level courses in the area of international business. Analysis of 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).

645. Seminar in Management Policy and Problems (3)

Prerequisites: MBA standing plus MGMT 500 or equivalent. History of management thought, business organizations, strategies and policies, executive control; managerial problems.

646. Seminar in Managing Mergers and Acquisitions (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent. Examination of the reasons for continuing trend of mergers and acquisitions, examination of the process (formulate, locate, investigate, negotiate, and integrate). Other topics include coordination and integrations 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 Management Planning and Control Systems (3)

Prerequisites: MBA standing, plus MGMT 500 or equivalent. Analysis of planning and control systems in management. Cases and problems will be examined. Letter grade only (A-F).

695. Selected Topics (3)

Prerequisites: MBA standing. Topics to be announced in the *Schedule of Classes*. Topics change each offering and in the absence of significant duplication the course may be repeated once for credit.

697. Directed Studies (1-3)

Prerequisites: MBA standing, plus consent of instructor. Individual study under the direction of the faculty. Letter grade only (A-F).

Human Resources Management Courses (HRM)

360. Organizational Behavior (3)

An overview of the dynamics of human behavior in organizations and implications for managing people at work. Topics include 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)

An overview of human resource functions that are designed to attract, motivate, develop and retain employees. Topics include human resource planning, job analysis, recruitment, selection, placement, appraisal, compensation and benefit administration,

training and development, communications, labor management relations and the international environment. Discussion, case studies and student presentations are used to develop critical thinking and problem-solving skills. Letter grade only (A-F).

***440. Collective Bargaining (3)**

Prerequisite: HRM 361. Examination of the 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)**

Prerequisite: HRM 361. Compensation and benefits management is viewed as an integrating human resource management process. Emphasis is on the development and administration of equitable compensation and benefit programs which will retain a productive workforce. Examined are job analysis and evaluation, pay structures, salary surveys, individual compensation, incentive systems and benefits administration. Discussion, case studies, simulations. Letter grade only (A-F).

446. Leadership and Motivation in Organizations (3)

Prerequisite: HRM 360. Critical examination of the determinants of effective leadership and successful methods of motivating employees to achieve organizational goals. Special attention given to identifying appropriate styles of leadership and methods for developing and applying leadership skills. An interactive class using case studies, research, and simulation exercises. Letter grade only (A-F).

***458. Managing Organizational Culture and Cultural Diversity (3)**

Prerequisites: HRM 360 or HRM 361. This course examines the impact of diversity, culture, and ethnic origin on the work experience, and is designed to better prepare individuals to meet the challenge of cultural diversity in organizations. Attention is given to how language, gender, race, tradition, education, economic structure, and organizational philosophy interact 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)

Prerequisite: Either HRM 360 or HRM 361. Critical examination of current and emerging issues concerning the management and development of people and organizations. Interactive course involving discussion, projects, and outside research. Topics include motivation, leadership, job performance, hiring, compensation, planning, selection, staffing, training, performance appraisal, careers, and quality of work life. Letter grade only (A-F).

***462. Labor-Management Relations (3)**

Overview of the principles and practices influencing labor-management relationships. Development, aims, structure, and functions of labor and employer organizations; the 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. 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. Includes career development and organizational development. Case studies, research, simulation exercises, and student presentations. Letter grade only (A-F).

***465. Personnel Selection and Appraisal (3)**

Prerequisite: HRM 361. Critical examination of theories and techniques guiding personnel selection and appraisal processes. Students develop expertise in determining staffing needs, conducting job analyses, writing job descriptions, developing recruitment strategies, affirmative action plans, and designing resumes. Attention is given to designing effective appraisal systems and conducting productive performance appraisals. Cases and simulations. Letter grade only (A-F).

497. Directed Studies (1-3)

Prerequisites: Consent of instructor and Department Chair, and 3.0 GPA or higher in human resources management courses. Individual projects, study and research of advanced nature in human resources management. Letter grade only (A-F).

Graduate Level

510. Behavioral Science for Engineers (3)

Prerequisites: MBA standing. Examination of the individual, groups and organizational structure designs, and interpersonal relationships that are peculiar to managing and directing professionals. Emphasis on managerial applications of Behavior Science concepts and research findings. Not open to MBA students.

652. Seminar in Human Resources Management (3)

From a general manager's perspective, an examination of those decisions and actions that impact upon managing people. Problems of productivity, employee commitment, employee development, employment law, and compensation are considered. Processes emphasized include 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)

An examination of various forms of opposition interactions within organizations. Focuses upon interpersonal, intragroup, and intergroup conflict by 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)

This course develops students' understanding and skills in two central parts of organizational life: human motivation and organizational change. Both traditional and modern theories of work motivation and change are reviewed, analyzed, and applied. Primary issues include: 1) the psychology and management of motivation, 2) the psychology and management of organizational change and development, and 3) management skills, policies, and organizational characteristics that facilitate the creation of genuinely motivating and flexible organizations. Letter grade only (A-F).

657. Seminar in Leadership Skills (3)

This course is intended to: 1) develop the student's leadership abilities and 2) examine the effectiveness of numerous approaches to leadership, including both traditional and modern approaches, from both managerial and psychological viewpoints. Leadership assessment and self assessment are included to aid diagnosis and understanding of one's own and others' leadership styles and abilities. Personality, situational factors, group processes, followership, and implications for leadership training are discussed. Letter grade only (A-F).

697. Directed Studies (1-3)

Prerequisites: MBA standing, plus consent of instructor. Individual study under the direction of the faculty. Letter grade only (A-F).

MILITARY SCIENCE

College of Health and Human Services

Program Director

Lieutenant Colonel Tracy L. Lear

Program Office

Engineering Technology (ET) 104

Faculty

Assistant Professors

Lieutenant Colonel Henry B. Schleuning

Master Sergeant James G. Ytuarte

Senior Instructor

Sergeant First Class Douglas R. Maddi

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View the CSU Army ROTC on-line at www.csulb.edu/org/armyrotc.

The Army Reserve Officers Training Corps (Army ROTC) program offers leadership and management training to CSULB students which consists of courses taught by Army personnel. This dynamic four-year program of instruction develops the mental and physical abilities of students in preparation for positions of leadership with the military and civilian communities. Students may enroll for academic elective credit without incurring any military service obligation. The curriculum includes military leadership and management courses; courses which provide an awareness of the heritage of the U.S. Military; the Armed Forces' role in national defense strategy; professional military subjects; and military ethics. The program is oriented towards preparing the student for a military career. Students desiring to attain a highly sought-after commission as a Second Lieutenant in the U.S. Army must meet eligibility requirements and complete the Military Science/Army ROTC (Reserve Officer Training Corps) Advanced Course. To be eligible for the Commissioning Program, a student must be enrolled full time (12 units) at CSULB, have at least two years remaining as a university student, be physically qualified, complete the advanced course and graduate prior to reaching their 30th birthday.

Financial Assistance

Many opportunities for financial assistance are available to students. Three areas of opportunities are: ROTC cadets who sign a contract for Advanced Phase, students who earn an ROTC scholarship, and cadets who train with Reserve or National Guard units. ROTC cadets who sign a contract to participate in the Advanced Course of ROTC receive a \$350 - \$400 a month allowance. Highly competitive two-, three-, and four-year ROTC scholarships are available. The scholarship provides payment of full tuition, books, supplies, and the \$250 - \$400 a month allowance for the duration of the scholarship. Students interested in scholarship competition should contact the Military Science Program at the time of application to the university. Reserve or National Guard training provides two additional sources of financial assistance: approximately \$150 a month for one weekend drill and approximately \$145 a month tuition assistance from the Army Reserve or National Guard "New GI Bill" benefits.

Equipment and Uniforms

All necessary equipment, uniforms and textbooks for participation in the Military Science/ROTC program are furnished to the student by the United States Government free of charge. Title to this property, other than expendable items, remains with the government. Students entering into active commissioned service after graduation are granted a special \$200 uniform allowance.

Four-Year Program

The four-year program curriculum is divided into two parts. The Basic Course is primarily for freshmen and sophomores, and the Advanced Course is for junior and senior level students. In special cases, the Advanced Course is available to students working towards graduate degrees.

Basic Course

The Basic Course is a one to two-year period where students may, without obligation, investigate the ROTC Program and the military as a full- or part-time career. Students may enter and leave during any semester. The curriculum for the Basic Course is consists of the lower division courses listed below. To become an ROTC cadet during the Basic Course requires the student be registered for a Military Science class, completion of an ROTC enrollment form (obtained at the Military Science Department, Technology Education, Room 108), and an interview with the ROTC Enrollment Officer. Because this course is for students to examine the ROTC Program without obligation, participation in ROTC activities is encouraged but not mandatory. Advancement into the Advanced Course is accomplished either by successfully completing the Basic Course classes, completing ROTC Summer Basic Camp or completing any military basic training program.

ROTC Summer Basic Camp

One method to qualify for the Advanced Course is to successfully complete the challenging six-week ROTC Summer Basic Camp. Students normally attend Basic Camp between their second and third academic years. It is important that potential transfer students who plan to participate in the two-year ROTC program make their intentions known directly to the Military Science Program no later than January of the year they plan to register at the university even though this date may precede the date of their final acceptance by the university.

The government will provide a transportation allowance to and from Basic Camp and will also receive approximately \$600 during the six weeks. All equipment, uniforms, room and medical care are furnished free while at camp. No military obligation is incurred as a result of attendance. It is recommended though that the student be committed to pursuing a career in the military either in an active or reserve capacity.

Basic Training

Outstanding students who have successfully served on active duty, regardless of the branch of service, are qualified to enter the Advanced Course. Also, students who have been, or are members of Reserve or National Guard units and have completed basic training are qualified for the Advanced Course. Students may be required to take certain lower division classes even after enrollment in the Advanced Course.

Advanced Course

The Advanced Course is a two-year period where ROTC cadets receive advanced leadership and management training. The cadets receive many hours of hands-on, practical leadership experiences to prepare them for a military career or a management position in the civilian sector. To become a cadet in the Advanced Course a student must complete the Basic Course or 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 for the student's commitment, the Military Science Department will provide \$350 - \$400 a month, classroom instruction, real leadership opportunities, and continuous feedback on each cadet's leadership progress. A six-week summer training camp, between the two years of the Advanced Course, will be

provided for testing and developing each cadet's leadership abilities. All equipment, uniforms, room, board, and medical care are furnished free while at this camp. The cadets will also 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, the cadet 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 110

Courses (M S)

Lower Division

101. United State Defense Establishment (3)

Prerequisite: One GE Foundation course (may be taken concurrently). This course will examine the military services, government agencies and private defense industries which collectively provide for our national defense. Explores the organization, interaction and influence of the U.S. Defense Establishment as a social, economic and political institution. Letter grade only (A-F). (Laboratory required of all AROTC Cadets only.)

101L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 101 concurrently and accepted as a cadet in the Army ROTC Program. This course is designed to assist students, with no prior military background, in their transition from a civilian into a cadet. Provides the individual with the skills necessary for them to become an integral member of an Army team. The student will be a member of a squad and receive instruction on small unit tactics. The cadet will be exposed to the Army values and selected critical individual military skills. The cadet will become familiar with the Army leadership techniques and receive basic leadership experiences and assessments. Credit/No Credit grading only.

103. Military Map Reading (1)

A comprehensive study of military map reading skills, using: topographic and standard military map symbols; UTM grid coordinates and military map overlays; map distances; grid and magnetic azimuths; map intersection, map resection, or modified map resection methods; and terrain association, daylight or night conditions, with a lensatic compass, or field expedient means. (1 Hour Lecture-Discussion) (2 Hour Laboratory required of AROTC Cadets only.) Letter grade only (A-F).

103L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 103 concurrently and accepted as a cadet in the Army ROTC Program. This course is designed to assist students, with no prior military background, in their transition from a civilian into a cadet. Provides the individual with the skills necessary for them to become an integral member of an Army team. The student will be a member of a squad and receive instruction on small unit tactics. The cadet will be exposed to the Army values and selected critical individual military skills. The cadet will become familiar with the Army leadership techniques and receive basic leadership experiences and assessments. Credit/No Credit grading only.

211. Introduction to Military Operations and Basic Tactics (1)

Fundamentals of operations and tactics employed in the U.S. Army: fire and maneuver, operations orders, patrolling; offensive and defensive operations. (Lecture-Discussion.) (Laboratory required of all AROTC Cadets only.)

211L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 211 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to transition into becoming a small group leader. Provides the individual with the skills necessary for them to become effective leaders of military fire teams and squads. While serving as a junior cadet NCO and a member of a squad the student will perform the duties of team or squad leader or as an assistant staff NCO; will be given the opportunity to train other cadets in basic skills. The cadet will continue to be exposed to the Army values and selected critical individual military skills. The cadet will become familiar with the Army leadership techniques and receive basic leadership experiences and assessments. Credit/No Credit grading only.

212. Basic Principles of Small Unit Leadership (1)

An overview of basic psychological principles related to military leadership: effective communication, individual motivation and development, human needs, power and influence, and introduction to management skills. (Lecture-Discussion.) (Laboratory required of all AROTC Cadets only.)

212L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 212 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to transition into becoming a small group leader. Provides the individual with the skills necessary for them to become effective leaders of military fire teams and squads. While serving as a junior cadet NCO and a member of a squad the student will perform the duties of team or squad leader or as an assistant staff NCO; will be given the opportunity to train other cadets in basic skills. The cadet will continue to be exposed to the Army values and selected critical individual military skills. The cadet will become familiar with the Army leadership techniques and receive basic leadership experiences and assessments. Credit/No Credit grading only.

Upper Division

301. Military Leadership and Management I (3)

Examines current leadership theories and models and their applicability for junior military officers. Emphasize specific interpersonal skills, counseling, oral and written communications, supervision, and preparation and conduct of training. Letter grade only (A-F). (3 Hour Lecture-Discussion) (2 Hour Laboratory required of AROTC Cadets only.)

301L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 301 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to serve in various leadership positions in the military chain of command at squad, platoon, and company levels. Cadets will routinely be responsible developing and executing unit plans and orders; training other students in basic skill; building teamwork among small units of students; executing small unit tactics; and preparing for Advanced Camp training and evaluation (conducted in the summer between junior and senior year). The cadet will be expected to internalize the Army values and master selected critical individual military skills as well as master the Army leadership and instructional techniques. Cadets will be routinely evaluated on their leadership skills. Credit/No Credit grading only.

302. Leadership and Management II (3)

Examines current leadership theories and models and their applicability for junior military officers. Emphasizes specific interpersonal skills: counseling, oral, and written communications. Letter grade only (A-F). (Lecture-Discussion.) (Laboratory required of AROTC students only.)

302L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 302 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to serve in various leadership positions in the military chain of command at squad, platoon, and company levels. Cadets will routinely be responsible developing and executing unit plans and orders; training other students in basic skill; building

teamwork among small units of students; executing small unit tactics; and preparing for Advanced Camp training and evaluation (conducted in the summer between junior and senior year). The cadet will be expected to internalize the Army values and master selected critical individual military skills as well as master the Army leadership and instructional techniques. Cadets will be routinely evaluated on their leadership skills. Credit/No Credit grading only.

401. Staff Operations (1)

Examines the organizational structure, functions and operating procedures of the military staff. Focus is on the role of the principle staff officers and procedures they use to develop staff estimates, recommendations and development of plans to execute commander's decisions. (1 Hour Lecture-Discussion-Practical Exercise.) Letter grade only (A-F).

411. U.S. Military History (3)

Survey course in American military history from the origin of the U.S. Army to present; principles of war and their application in U.S. military history, leadership and the U.S. military heritage. (Lecture-Discussion.) (Laboratory required of AROTC Cadets only.)

411L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 411 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to serve as a cadet officer in the Army ROTC program. The cadet will serve in senior leadership positions at the platoon, company, and battalion levels. The cadet may also serve as a battalion level staff officer responsible for the planning, execution and evaluation of ROTC training activities. Cadet will also serve as a mentor for junior cadets in their preparations for the Army ROTC Advance Camp. At the conclusion of the class the cadets must demonstrate that they have mastered the Army values and mastered the execution of selected critical individual military skills. Credit/No Credit grading only.

412. Officership and Professionalism (3)

Examines the role of United States Army Officers and their responsibility to society. The course focus is on military ethics, Uniformed Code of Military Justice System, the logistics, supply and intelligence systems, post and installation support, and the transition to the Officers Corps. (3 Hour Lecture-Discussion.) (3 Hour Laboratory required of AROTC Cadets only.) Letter grade only (A-F).

412L. Leadership Laboratory (1)

Prerequisites: Enrolled in M S 412 concurrently and accepted as a cadet in the Army ROTC Program. This course will allow the student to serve as a cadet officer in the Army ROTC program. The cadet will serve in senior leadership positions at the platoon, company, and battalion levels. The cadet may also serve as a battalion level staff officer responsible for the planning, execution and evaluation of ROTC training activities. Cadet will also serve as a mentor for junior cadets in their preparations for the Army ROTC Advance Camp. At the conclusion of the class the cadets must demonstrate that they have mastered the Army values and mastered the execution of selected critical individual military skills. Credit/No Credit grading only.

497. Independent Studies (1-3)

Prerequisites: Program Director must grant permission and student must obtain prior approval of topic. Individual studies with faculty supervision in an area of Military Science specialization. Limited to a maximum of 3 units per semester. May be repeated for a total of six units. Letter grade only (A-F). (Discussion-Laboratory.)

MUSIC

College of the Arts

Chair

John A. Carnahan

Department Office

University Music Center (UMC), Room C306

Telephone

(562) 985-4781

Faculty

Professors

John T. Barcellona
Richard P. Birkemeier
John A. Carnahan
Michael R. Carney
Kristine K. Forney
H. Martin Herman
Roger C. Hickman
Justus F. Matthews
Deborah Mitchell
Jeff Reynolds

Associate Professors

Leland Vail
Daniel Zanutto

Assistant Professors

Gervacio Jose E. Brondial
Neal Finn
Richard Rintoul
Jonathan Talberg

Undergraduate Advisor

Leland Vail

Graduate Advisor

Kristine K. Forney

Credential Advisor

Deborah Mitchell

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Applied Music

Chi Asada, Piano; Jim Atkinson, French Horn; John Barcellona, Flute; Marian Bodnar, Voice; Robin Buck, Voice; Andrea Byers, Violin; Marvlee Cariaga, Voice; Deborah Carnahan, Clarinet; Michael Carney, Percussion; Raynor Carroll, Percussion; Axel Clarke, Percussion; Charles Coker, Bassoon; Cecilia Coleman, Jazz Piano; Charley Davis, Trumpet; Marcia Dickstein, Harp; Randy Drake, Percussion; Brad Dutz, Percussion; Jerry Epstein, Viola; Percussion; Ronald Eschete, Guitar; Dave Evans, Trumpet; Rob Frear, Trumpet; David Garrett, Cello; David Gerhart, Percussion; Helen Goode Castro, Clarinet; Valentina Gottlieb, Piano; John Hayhurst, Viola; Christine Helferich, Voice; Carolyn Hove, Oboe; Monica Kaenzig, Clarinet; Bruce Lett, Jazz Bass; Phillip Levy, Violin; Greg Maldonado, Violin; Eric Marienthal, Saxophone; Loren Marsteller, Euphonium and Trombone; Kathleen Martin, Voice; Shigemi Matsumoto, Voice; Marjorie McMillin, Voice; James Miller, Trombone; Timothy Morrison, Trumpet; Richard Naill, Cello; Betty Olsson, Voice; Norm Pearson, Tuba; Arpine Pehlivanian, Voice; Elisabeth Pehlivanian, Voice; Tom Peters, String Bass; Nancy Peterson, Clarinet; Leo Potts, Saxophone; Jeff Reynolds, Bass Trombone; Jeremy Reynolds, Clarinet; Robbie Riddle, Voice; Linda Rose, Violin; Cathy Segal-Garcia, Vocal

Jazz; Joe Stone, Bassoon; Kimiyo Takeya, Violin; Jonathan Talberg, Voice; Darrin Thaves, Flute; Mark Uranker, Piano; John Van Houten, Tuba; Althea Waites, Piano; David Young, Bass.

Administrative Coordinator

Debi Scroggins

Students desiring information should contact the department office for referral to one of the faculty advisors: Undergraduate advisor, Music Education (credential) or Graduate Advisor.

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 late Fall and are also available at the beginning of registration week each semester. Each entering student should inquire at the Music 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 department is no longer providing instruction in acoustic guitar. A limited number of jazz/commercial 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 music 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 departmental scholarship aid and continued applied study at the lower division level through university extension (a fee is required). The exam may be repeated.

Each student must pass a piano proficiency examination regardless of the performance area (piano majors excepted). Detailed information may be obtained in the Music Office.

Participation in a major performance organization (MUS 100/300) is required of each music major each semester. The performance ensemble must be approved by the department. Undergraduates are also required to register for Music Forum (MUS 110) every semester in residence to a total of 7 units.

The Department 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 department 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 departmental requirements listed below. California State University, Long Beach is an accredited institutional member of the National Association of Schools of Music (NASM) (National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700).

Bachelor of Arts in Music (code MUS_BA01) (120 units)

Requirements

The BA requires 120 units, 24 upper division in the major. Music history and literature (MUS 190* [section by advisement], 160, 360, 374, 490* - *counts towards GE); music theory (MUS 141A-B; 142A-B; 240, 241, 341, 342); Major Performance Organization (MUS 100 [lower division] or 300 [upper division]) one unit each semester in residence – the performance ensemble must be approved by the department; keyboard proficiency [completion of the piano proficiency examination (equivalent to MUS 220B)]; Music Forum (MUS 110) each semester in residence to a total of 7 units; Applied Music: 129/329 or X129/X329 for 8 units; Senior Recital (MUS 423A) or (MUS 428).

Bachelor of Music

The B.M. requires a minimum of 72 music units including the core and one area of specialization called an option. Options include Music History and Literature, Composition, Instrumental Music (Music Education), Choral-Vocal Music (Music Education) and Performance. Admission to the option is determined by audition and approval of the chair of the department. Application for admission to the option should be submitted no later than the beginning of the junior year, and significant progress must be demonstrated during the remaining two years. A Bachelor of Music degree requires a minimum of 132 units.

Core Requirements – Music Education Options (codes MUS_BM01, MUS_BM04)

Music history and literature - MUS 190* (section by advisement), 160, 360, 374, 490*, (* counts toward GE); music theory – MUS 141A-B, 142A-B, 340A-B; major performance organization – MUS 100/300, one unit each semester in residence (keyboard majors only take maximum 4 semesters); keyboard proficiency – successful completion of departmental piano proficiency examination (equivalent to MUS 220B); MUS 110 – taken each semester in residency to a total of seven units; senior recital (MUS 423A).

Core Requirements – Performance, Composition and Music History Options

Music history and literature - MUS 190* (section by advisement), 160, 360, 374, 490*, (* counts toward GE); music theory – MUS 141A-B, 142A-B, 240, 241, 341, 342; major performance organization – MUS 100/300, one unit each semester in residence (keyboard majors only take maximum 4 semesters); keyboard proficiency – successful completion of departmental piano proficiency examination (equivalent to MUS 220B); MUS 110 – taken each semester in residency to a total of 7 units; senior recital (MUS 423A) or senior composition recital (423B) or senior thesis (423C) or senior project (423D), by advisement.

Option in Instrumental Music (code MUS_BM04) (132 units)

(This option is intended for single subject teaching credential candidates).

As of July 1, 2002, all candidates for the Single Subject Preliminary Credential are required to demonstrate Level I computer proficiency. Proficiency in Music Education can be demonstrated by successful completion of MUS 286 or ETEC 444 or by passing a California Commission on Teaching Credential-approved examination. This requirement must be met prior to advancement to student teaching.

Requirements

Core: MUS 129/329 or X129/X329 (must be taken for 8 units); 286; 326; 125T; 419; 484; 485 and EDSS 300N. Option: MUS 125V; elect 5 additional courses from MUS 125A, B, C, D, E, and/or F; 382A; 382B; 425; 480; and 482.

Option in Choral-Vocal Music (code MUS_BM01) (132 units)

(This option is intended for single subject teaching credential candidates.)

As of July 1, 2002, all candidates for the Single Subject Preliminary Credential are required to demonstrate Level I computer proficiency. Proficiency in Music Education can be demonstrated by successful completion of MUS 286 or ETEC 444 or by passing a California Commission on Teaching Credential-approved examination. This requirement must be met prior to advancement to student teaching.

Requirements

Core: MUS 129/329 or X129/X329 (must be taken for 8 units); 286; 326; 125T; 419; 484; 485 and EDSS 300N. Option: MUS 125F; elect 3 additional courses from MUS 125A, B, C, D, and/or E; 273A; 273B; 273C; 422; 426; 483A; and 483B.

Option in Performance (code MUS_BM05) (132 units)

Requirements

Individual instruction (MUS 129, 229/429, or X129, X229/X429) required each semester in residence with an achievement of senior level on major performance medium. A Junior Recital (MUS 323) is required of all students.

Piano: Core: MUS 200 or 201/400 or 401 (4 units); 277A-B, 427, 477A-B, 492. Electives: four units chosen from the following courses: 273A, 273B, 273C, 326, 428, 434 A-B, 436, and 460.

String Instruments: MUS 200 or 201/400 or 401 (4 units); MUS 326, 425; choose six units from: 428, 460, and 493.

Wind Instruments: MUS 200 or 201/400 or 401 (4 units, 2 of which must be either Woodwind or Brass Chamber Music); MUS 326, 425; choose six units from 428, 460, and 493.

Percussion: MUS 200 or 201/400 or 401 (4 units, 2 of which must be Percussion Ensemble); MUS 326, 425; choose 6 units from 428, 460, and 493.

Voice: MUS 273A, 273B, 273C, 326, 426, 434A or 434B, 460; choose an additional two units from: 436, 434A or 434B. Completion of Department of Music Foreign Language Examination in French, German or Italian (may be waived by completion of 101B level course in French, German or Italian).

Opera: MUS 130/131, 273A, 273B, 273C, 326, 436, 473, and THEA 262; two units of MUS 330 or 331 required as part of eight-unit activity requirement; choose two courses from the following: MUS 469, 3-unit theatre elective, 2-unit dance elective (DANC 111A or 113A). Completion of Department of Music Foreign Language Examination in French, German or Italian (may be waived by completion of 101B level course in French, German or Italian).

Jazz Studies: MUS 201/401 (at least 4 units of Jazz Ensemble 201/401); MUS 271, 370, 371, 372, 393, 474. Students in jazz studies whose primary performance medium is woodwinds will be required to take a minimum of 6 units in saxophone, 2 units in clarinet, 2 units in flute, and 4 units consisting of further study in saxophone, clarinet or flute for a total of 14 units in applied music. Prior to the senior project, each student must pass the UDSE on saxophone, clarinet and flute.

Option in Composition (code MUS_BM02) (132 units)

Requirements

MUS 129 or X129 to be taken each semester in residence until successful completion of the departmental upper division screening examination in applied music (a minimum of 4 units is required), MUS 344A (to be taken concurrently with 329X), 344B (to be taken concurrently with 329X), 423B and 24 units to be chosen under departmental advising from the following courses: 200B, 271, 326, 343, 370, 371, 372, 375, 393, 400B, 411, 415, 422, 425, 441, 442, 443, 445 (for a total of 4 units, to be taken concurrently with 329X), 447, 455, 456, 457, 460, 474, 497, and THEA 449.

Option in History and Literature (code MUS_BM03) (132 units)

Requirements

MUS 129 or X129 to be taken each semester in residence until successful completion of the departmental upper division screening examination in applied music (a minimum of four units is required); MUS 496 (Research Methods); 460; 423C; elect 14 units from MUS 363I, 364I, 375, 393, 428, 447, 467, 469, 471, 478, 492, 400R and 400S (Collegium may be repeated). Completion of Department of Music Foreign Language Examination in French, German, or Italian (may be waived by completion of 101B level course in French, German, or Italian).

Minor in Music (code MUS_UM01)

Requirements

A minimum of 18 units, 9 of which must be upper division (300- and 400-level courses). Specific courses are required. A degree plan must be prepared in conference with the department advisor prior to beginning this program.

Master of Arts in Music (code MUS_MA01)

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 Department 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 Department of Music 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 from the Department Graduate Committee.

Advancement to Candidacy

The prerequisites for advancement to candidacy are the same as those for the Master of Music.

Requirements

1. Completion of a minimum of 30 units of approved upper division and graduate courses with at least 24 units in the major. (The program may not include more than six units of transfer graduate credit);
2. Core Courses required by all Master of Arts students. 13-15 units; MUS 696 (should be taken the first time it is offered during the student's residency); MUS 541; one course from MUS 561, 562, 563, 564, 565; MUS 698 (for 4-6 units, dependent upon concentration).
3. Additional courses for Musicology concentration: 3 units from MUS 561, 562, 563, 564, 565 (other than one taken in core); 6 units elected from MUS 547, 561, 562, 563, 564, 565, 566, 569, 571, 576, 578, 592, 593 (not taken in core); 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). Thesis is taken for 6 units in this concentration.
4. Additional courses for Music Theory concentration: MUS 542; 6 units from MUS 541 (may be repeated), 547, 640 (may be repeated); 6 units of electives (students in this concentration are strongly encouraged to elect additional history, composition and performance classes, especially New Music Ensemble and Collegium Musicum). Thesis is taken for 6 units in this concentration.
5. Additional courses for Music Education Concentration: MUS 581, 588; 4 units chosen from MUS 486, 526, 554, 575, 580, 582, 585, 587, 594, 595, 680; 5-7 units of electives (students in this concentration are encouraged to elect performance and conducting classes). Thesis is taken for 4-6 units in this concentration, dependent upon project.
6. An oral defense of the thesis, recital, or project (MUS 698).

Master of Music Degree (code MUS_MM01)

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 Department 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 Department of Music 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 Department Graduate Advisory Council.

Advancement to Candidacy

1. Satisfy all the general University requirements, including passing the CSULB Writing Proficiency Examination;
2. Remove all undergraduate deficiencies, which were determined by the departmental Graduate Placement Examination and/or the Dean of the College of the Arts;
3. Pass the Department of Music 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, Department Chair, and the Dean of the College of the Arts;
5. GPA of 3.0 or higher.

Requirements

1. 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. (The program may not include more than six units of transfer graduate credit);
2. Core curriculum (13 units) MUS 541, one course from MUS 561, 562, 563, 564, 565, 566 (Jazz Studies concentration only; MUS 513); MUS 696 (should be taken the first time it is offered during student's residency); MUS 698.
3. An oral defense of the thesis, recital, or project (MUS 698).

Master of Music Concentrations

Composition: 2 units of MUS 529X or 629X, taken concurrently with MUS 544 and MUS 545; 9 units to be chosen under departmental advisement from the following courses: 510, 511, 512, 513, 515, 516, 517, 520, 522, 525, 542, 543, 545, 547, 555, 556, 557, 574, 597, 640; 2 units of electives selected by advisement.

Conducting – Instrumental: 2 units of MUS 500, 600, or 601; 4 units of 529W or 629W; select by advisement two courses from MUS 520, 525, 680; 5 – 6 units of electives selected by advisement.

Conducting – Choral: 2 units of MUS 500, 600 or 601; 4 units of 529W or 629W; 519 (must be taken twice); 573, 575; 4 units of music electives by advisement.

Jazz Studies: 3 units selected from MUS 515, 574; 9 units selected from MUS 510, 511, 512, 516, 517, 525, 529 or 629 (section by advisement), 601A, 601B, 601C, 601D, or 601E; 2 units of electives.

Opera Performance: 4 units for MUS 529Q or 629Q; 2 units of MUS 530; 526, 536, 573; 5 units of electives chosen by advisement. Students in this concentration are strongly encouraged to take MUS 569.

Instrumental Performance: 4 units of MUS 500, 530, 600, or 601; 4 units of MUS 529 or 629 (section by advisement). Keyboard specialization: 3 units of MUS 592; 6 units of electives selected by advisement (MUS 577A-B strongly encouraged). Other instrumental specializations: 9 units of electives chosen by advisement.

Vocal Performance: 2 units of MUS 500, 530, 600, or 601; 4 units of MUS 529 or 629 (section by advisement); MUS 573; choose 4 units from MUS 526, 534A, 534B under advisement; 5 units of electives chosen by advisement.

Teaching Credentials

Students seeking a degree in Music Education refer to the Instrumental Music and Choral-Vocal Music options under B.M. degree. For further information consult with the Department of Music 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 300 may be counted toward a bachelor's degree. Simultaneous enrollment in more than one organization is permitted.

Courses (MUS)

Lower Division

100. Major Performance Organization (1)

Prerequisite: Consent of instructor.

- B. Symphonic Band
- C. Wind Symphony
- D. Women's Chorus
- E. Forty-Niner Chorus
- F. University Choir
- G. Chamber Singers
- J. Symphony Orchestra

Course may be repeated for a maximum of 8 units.

110. Music Forum (1)

Recital attendance and performance on principal instrument or voice. Required of undergraduate music majors each semester, except for semester enrolled in MUS 423A, for a maximum of 7 units. Credit/No Credit grading only.

119. Group Piano for the Non-Major (1)

A group piano setting designed for the student interested in learning to play the piano for enjoyment. Repertoire and technical exercises for dexterity will be emphasized. Simple chord progressions and improvisational skills will also be taught. Knowledge of reading music preferred but not required. Course may be repeated to a maximum of 2 units.

120A-B. Class Piano (1,1)

Technique, tone production, rhythm, sight-reading, interpretation and keyboard facility. (2 hours laboratory.)

122A-B. Class Voice (1-1)

Fundamental techniques of singing, tone production, voice placement, breathing, diction, repertoire, and song interpretation. (2 hours lab.)

125. Instrumental Methods (1)

Class instruction in applied music. Class instruction in applied music and technology. Limited to music majors and minors. Letter grade only (A-F).

- A. Single Reeds/Flute
- B. Double Reeds
- C. Brass
- D. Percussion
- E. Strings
- F. Guitar
- T. Music Technology
- V. Voice Class for Instrumentalists

129. Individual Instruction for Music Majors (1)

Open to music majors only. Private lessons in their major performance medium. Application must be made to the Chair of the Department of Music during the semester prior to registration. Registration subject to departmental approval. May be repeated for a maximum of 4 units.

- 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 the lyric theatre; solo and ensemble coachings; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction. (3 hours or more laboratory.)

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.

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 required.

141A. Musicianship I (2)

Corequisite: MUS 142A. Study of the basic skills of music reading, ear training, and sight-singing including melodic and harmonic dictation through modulation and chromatic harmony. Computer assisted instruction is available. Course fee required.

141B. Musicianship II (2)

Prerequisite: MUS 141A or satisfactory score on theory placement test. Corequisite: MUS 142B. Study of the basic skills of music reading, ear training, and sight-singing including melodic and harmonic dictation through modulation and chromatic harmony. Computer assisted instruction is available. Course fee 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 & 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)

Prerequisite or Corequisite: A General Education Foundation course. Fundamentals of music and essentials of music listening. Basic performance skills in singing and playing music. Not open to music majors. Letter grade only (A-F).

190. Listener's Approach to Music (3)

Prerequisites or corequisites: ENGL 100 or another General Education Foundation course. Non-technical course open to all students. Materials, forms and styles of music with extensive listening.

200. Chamber Music (1)

Prerequisite: Consent of instructor.

- A. Brass Ensemble
- B. New Music Ensemble
- C. String Ensemble
- D. University String Quartet
- E. University Wind Quintet
- F. University Brass Quintet
- K. Performance
- L. Brass Chamber Music
- M. Percussion Ensemble
- N. Steel Drum Orchestra
- O. Woodwind Chamber Music
- P. String Chamber Music
- R. Collegium-Voc
- S. Collegium-Inst

- T. Saxophone Ensemble
- U. Directed Accompanying
- W. Varsity Band
- X. World Percussion Group
- Y. World/Traditional Music Performance
- Z. University Percussion Quartet

Course may be repeated for a maximum of 8 units.

201. Jazz Ensemble (1)

Prerequisites: Consent of instructor. Course may be repeated to a maximum of 8 units.

- A. Jazz Ensemble I
- B. Jazz Ensemble II
- C. Jazz Combos
- D. Vocal Jazz Ensemble I
- E. Vocal Jazz Ensemble II

220A-B. Class Piano (1-1)

Continuation of 120A-B. (2 hours laboratory.)

229. Individual Instruction for Music Major (2)

Open to performance majors only. Private lessons in their major performance medium. Application must be made to the Chair of the Department of Music during the semester prior to registration. Registration is subject to departmental approval. May be repeated for a maximum of 8 units.

- 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

240. Advanced Musicianship (2)

Prerequisites: MUS 141B and 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 \$15.00.

241. Tonal Counterpoint (3)

Prerequisites: MUS 141B and 142B. Analysis and writing of canons, two-part inventions, and fugues.

271. Improvisation Techniques I (2)

Basic techniques in improvisation, beginning with simple question and answer phrases and progressing to extended solos. Detailed and applied knowledge of chord progressions.

273A. Diction for Singers (2)

Prerequisite: Consent of Instructor. This course will focus primarily on mastering the IPA, International Phonetic Alphabet, and its application in the following two languages: English and Italian. In terms of repertoire, its content will focus on the correct pronunciation of art song, choral repertoire, and opera arias. Letter grade only (A-F).

273B. French Diction for Singers (1)

Prerequisite: MUS 273A. This course will focus primarily on mastering the application of the International Phonetic Alphabet with its phonetic transliteration skills to the French language. The content will focus on the correct pronunciation of art songs, choral repertoire, and opera arias. Letter grade only (A-F).

273C. German Diction for Singers (1)

This course will focus primarily on mastering the application of the International Phonetic Alphabet with its phonetic transliteration skills to the German language. Its content will focus on the correct pronunciation of art song, choral repertoire, and opera aria. Letter grade only (A-F).

277A. 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.

277B. 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.

286. Introduction to Music Education (3)

This course provides the philosophical and pedagogical theory required for the design and execution of appropriate music instructional programs at the general classroom, middle school, and secondary levels. The content includes discussion of rationales for music education, the current status of music education, general learning principles, music learning theories, classroom management, and research and resource materials in music education. A one-unit lab explores the use of MIDI, sequencing, and tutorial/managerial software in the music classroom/rehearsal setting. Letter grade only (A-F).

290. Popular Music in America (3)

Prerequisite: Completion of GE Foundation requirements. Artistic and socio-economic influences on popular music in America from 1840 to the present. Special consideration of the impact on "pop" music of various cultures and ethnic groups within the U.S. will be explored. Not open to Music majors.

Upper Division

300. Major Performance Organization (1)

Prerequisite: Consent of instructor. Course may be repeated for a maximum of 8 units.

- B. Symphonic Band
- C. Wind Symphony
- D. Women's Chorus
- E. Forty-Niner Chorus
- F. University Choir
- G. Chamber Singers
- J. Symphony Orchestra
- K. Performance

323. Junior Recital (1)

Prerequisite: MUS 241. Recital of the standard literature for solo instrument or voice in the performance option in the Bachelor of Music degree. Enrollment restricted to music majors passing the Qualifying Examination.

326. Conducting (2)

Prerequisites: Consent of instructor. Introduction to the principles and techniques of conducting and organization. Study and interpretation of instrumental and choral repertoire using the class as a laboratory ensemble. (1 hour lecture, 2 hours lab). Letter grade only (A-F).

327. Choral Organization and Rehearsal Techniques (2)

A course for the choral musician with emphasis upon the rehearsal and rehearsal techniques. Aspects of auditioning voices, choral tone, diction, and score preparation will be stressed. Methods of organization and management of the overall choral program will also be addressed.

329. Individual Instruction for Music Majors (1)

Prerequisite: Successful completion of the departmental upper division screening exam on the applied instrument or voice. Open to music majors only. Private lessons in the major performance medium. Application must be made to the Chair of the Department of Music during the semester prior to registration. Registration subject to departmental approval. May be repeated for a maximum of 10 units.

- 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

330. Opera (1)

Prerequisites: Consent of instructor. Performance of excerpts and complete works for the lyric theatre: solo and ensemble coachings; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction. Course may be repeated to a maximum of 4 units, only 2 of which may count toward the degree. (3 hours or more laboratory.)

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. Course may be repeated to a maximum of 4 units.

340A. Musical Analysis in Comparative Cultures (3)

Prerequisites: MUS 141B, 142B. An analysis of the musics of western, non-western, and popular cultures from the 14th Century to the present. The course examines the development of counterpoint, the historical development of musical forms, and the materials and techniques of 20th Century music. Students analyze musics from western and non-western cultures as well as popular culture. Letter grade only (A-F).

340B. Musical Analysis in Comparative Cultures (3)

Prerequisites: MUS 340A. An analysis of the musics of western, non-western, and popular cultures from the 14th Century to the present. The course examines the development of counterpoint, the historical development of musical forms, and the materials and techniques of 20th Century music. Students analyze musics from western and non-western cultures as well as popular culture. Letter grade only (A-F).

341. Musical Form and Analysis (3)

Prerequisites: MUS 241. 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 the 20th Century with emphasis on writing in selected 20th Century styles.

343. Introduction to Computing and MIDI (3)

Basic techniques of sequencing, beginning music notation, sampling, SMPTE, and elements of studio design in a MIDI based computer music studio. Students will work at individual workstations in a networked computer music lab, gaining experience with practical application on studio equipment. Letter grade only (A-F).

344A-B. Composers' Workshop I-II (2-2)

Prerequisite: MUS 241 or consent of instructor. Corequisite: MUS 329X (1 unit). Directed studies in composition and analysis. Composition in selected styles and forms from various historical periods with readings of student works by resident ensembles.

360. History of Music: Medieval/Renaissance (3)

Prerequisite: 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).

363I. Music and the Visual Arts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of the following courses: MUS 190 or ART 110. This course explores the interrelationships between the visual arts and music in Western culture by comparing the artistic methodologies employed by important visual artists, including painters, sculptors, architects, to those employed by the most important composers. The course will focus primarily on the great works of art music of the 18th through 20th Centuries and the works of visual artists that paralleled their development.

364I. Music and the Temporal Arts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of the following courses: MUS 190, DANC 110, THEA 122, or ENGL 180. This course is a study of the interrelationships of the temporal arts (dance, theatre, literature and music) in Western culture by comparing the artistic methodologies employed by important artists, including poets, writers, choreographers, and playwrights to those employed by the most important composers. The course will focus primarily on the great works of art music of the 18th through 20th Centuries and the works of temporal artists that paralleled their development.

370. Recording and Electronic Techniques (3)

Technique of the preparation and recording of music and the study of electronic recording and musical equipment.

371. Improvisation Techniques II (2)

Continuation of MUS 271.

372. Jazz Harmony and Analysis (3)

Prerequisite: MUS 142B. Basic techniques of writing and analyzing jazz harmony.

374. History of Music: Ninteenth/Twentieth Centuries (3)

Prerequisite: MUS 190. Chronological survey of music and musical styles from 1800 to the 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).

375. The Avant-Garde: Radical Change in Art and Music in the 20th Century (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An examination of some of the major "modern" or avant-garde styles and movements in art and music in Europe and America from about 1900 to the present. The course aims not only to characterize these styles and their practitioners but to relate them to major changes to modern society.

382A. Instrumental Ensemble Lab (3)

Prerequisite: Three instrumental methods courses from 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. Performance on secondary instruments is required.

382B. Beginning Jazz Ensemble Lab (1)

Examination of organizational and instructional techniques relating to beginning jazz ensemble performance, as well as performance on secondary instruments and conducting ensemble class sessions.

385. Children's Music (3)

Prerequisite: MUS 180. An introduction to general, vocal, and instrumental musical experiences appropriate for children in grades K-6. Includes participation in singing and listening activities and experience in the use of simple melodic, rhythmic, and harmonic instruments appropriate to the age and development of the child. This course is intended for liberal studies majors and others by consent of instructor.

393. Jazz, An American Music (3)

Prerequisite: Completion of 13 unit General Education Foundation requirement and upper division standing. This course of study presents the development of various musical styles, forms, improvisa-

tions, significant musical concepts and major figures in the past, present and future of jazz, an American music. Letter grade only (A-F).

400. Chamber Music (1)

Prerequisite: Consent of instructor. Course may be repeated for a maximum of 8 units.

- A. Brass Ensemble
- B. New Music Ensemble
- C. String Ensemble
- D. University String Quartet
- E. University Wind Quintet
- F. University Brass Quintet
- G. Studio Ensemble IV
- J. Studio Ensemble V
- K. Performance
- L. Brass Chamber Music
- M. Percussion Ensemble
- N. Steel Drum Orchestra
- O. Woodwind Chamber Music
- P. String Chamber Music
- R. Collegium-Voc
- S. Collegium-Inst
- T. Saxophone Ensemble
- U. Directed Accompanying
- W. Varsity Band
- X. World Percussion Group
- Y. World/Traditional Music Performance
- Z. University Percussion Quartet

401. Jazz Ensemble (1)

Prerequisites: Consent of instructor. Course may be repeated to a maximum of 8 units.

- A. Jazz Ensemble I
- B. Jazz Ensemble II
- C. Jazz Combos
- D. Vocal Jazz Ensemble I
- E. Vocal Jazz Ensemble II

411./511. Film Scoring (3)

Prerequisites: MUS 372, 474, or permission of instructor. A course of study designed to review the development of various musical styles, forms, genres, and significant musical concepts and problems in creating music for films. Will include the study of film mechanics and the emotional and psychological requirements of music underscoring. Time will be spent creating original music for film cues. Letter grade only (A-F). Course may be repeated for a maximum of 6 units.

415./515. Advanced Concepts in Jazz Theory (3)

Prerequisites: MUS 372, 393, 474, or consent of instructor. A theory course designed to review the development of musical styles, forms, genres, and significant musical concepts and problems in jazz harmony. Theoretical work emphasizes detailed study of harmony, form, idioms, combination of idioms, and use of experimental materials. Study and detailed analysis of major modern jazz artists harmonic technique. Musicians to be studied include: Chick Corea, Keith Jarrett, Herbie Hancock, Joe Farrell, Miles Farrell, Miles Davis, Freddie Hubbard, John Lewis, McCoy Tyner, Clare Fischer, Wayne Shorter, Gil Evans, and Bill Evans. Letter grade only (A-F).

416./516. Pedagogy of Improvisation (3)

Prerequisites: MUS 371, 372, 393, 474, or consent of instructor (students must demonstrate substantial skills in jazz improvisation). A course of study designed to survey the developments of literature and teaching methods dealing with individual instruments in Jazz Improvisation. These methods will provide important information regarding musical styles and significant musical concepts as applied to individual instruments and vocalists. Theoretical work emphasizes detailed study of methods dealing with technique, harmony, forms, digital patterns and scales, combination of idioms, use of experimental material, transcriptions, texts, and videos. Letter grade only (A-F).

417./517. Business of Music (3)

An overview of the business and artistic process of the music industry. Topics include popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Recent changes in digital recording, broadcasting technology, copyright laws, and legal issues are also addressed. Letter grade only (A-F).

419./519. Choral Master Class (1)

Prerequisites: Consent of instructor. Designed for the graduate conducting student, and undergraduate/graduate choral/vocal major. The lecture/practicum format allows each conductor the experience of conducting the laboratory choir (consisting of the enrolled singers and conductors) in a master class setting. Emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices. Letter grade only (A-F). Course may be repeated for a maximum of 4 units.

422./522. Advanced Choral Conducting and Literature (2)

Prerequisites: MUS 326 and 327 or consent of instructor. Choral technique, style, and interpretation; choral schools and composers since the 16th century; contemporary secular and sacred choral compositions. Class used as laboratory group.

423A. Senior Recital (1)

Prerequisites: MUS 341, 342. Corequisite: Concurrent enrollment in MUS 329 or 429. An individual recital of the standard literature for solo instrument or voice. Enrollment restricted to Music majors passing the Qualifying Examination. Letter grade only (A-F).

423B. Senior Composition Recital (1)

Prerequisites: Senior standing and consent of instructor. An individual recital of original music written during composition studies while in the program. Enrollment restricted to Bachelor of Music composition majors passing the Qualifying Examination. Letter grade only (A-F).

423C. Senior Thesis (1)

Prerequisites: MUS 360, 374 and 496. An in-depth research paper representing a systematic study of a significant problem, style, or repertory. The finished product must show thorough command of the relevant literature, critical thinking and writing, and an original approach. A proposal (outline, abstract, and bibliography) must be submitted for topic approval. Letter grade only (A-F).

423D. Senior Project (1)

Prerequisites: Senior standing and consent of instructor. A final project or internship with a music or arts organization subject to approval of the supervising faculty member. Letter grade only (A-F).

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 the class as a laboratory. Students in 425 must take MUS 382A concurrently.

426./526. Vocal Development (2)

Prerequisite: Consent of instructor. Theory and techniques of teaching voice.

*427. Piano Pedagogy (3)

Study of the philosophies, psychology, and piano teaching methods for children, as well as intermediate and advanced level students. Letter grade only (A-F). Course may be repeated for a maximum of 6 units.

*428. Seminar in Musical Styles (3)

Prerequisites: MUS 160, 360, 341, 374. A study seminar designed to review the development of musical styles, forms, genres, and significant musical concepts and problems. For Music majors only. Letter grade only (A-F).

429. Individual Instruction for Music Majors (2)

Prerequisite: Successful Completion of the Departmental Upper Division Screening Exam on the Applied Instrument or Voice. Private lessons in their major performance medium. Application must be made to the Chair of the Department of Music during the semester prior to registration. Registration is subject to departmental approval. May be repeated for a maximum of 10 units.

- 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

434A./534A. German Song Repertoire (2)

Prerequisite: MUS 273B. 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).

434B./534B. French Song Repertoire (2)

Prerequisite: MUS 273B. 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).

436./536. Opera Repertoire (2)

Prerequisites: MUS 273B or consent of instructor. Two years of voice study, completion of the Department of Music Foreign Language Proficiency Exam (may be waived upon successful completion of 101B level course in French, German, or Italian). Letter grade only (A-F). (4 hours laboratory.)

***441. Studies in Musical Analysis (3)**

Prerequisites: MUS 341, 342. Intensive individual and class analysis of representative compositions of various periods and styles.

442. Orchestration (3)

Prerequisite: MUS 241. Range, characteristics, and transpositions of all standard orchestral instruments by writing and/or transcribing music for them. Preparation and proofreading of scores and parts. Readings of student assignments will be included whenever possible.

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.

445. Composition (2)

Prerequisite: MUS 344A-B or consent of instructor. Corequisite: MUS 329X. Composition with emphasis on the development of an individual style. Course includes study of representative major compositions of the 20th Century. Letter grade only (A-F). Course may be repeated for a maximum of 4 units.

447./547. Musical Systems of the World (3)

Prerequisites: MUS 342 or consent of instructor. Open to music majors and minors. Study of the theoretical systems (pitch, scales, rhythmic treatment, textures, forms) of selected musical cultures of the world. Letter grade only (A-F).

454./554. School, Society, and Music Education (3)

Beginning with the singing school movement and the Jeffersonian era, this course will provide the student with a historical, in-depth examination of the direction and influence of music education within America's general education curriculum as it has reflected and addressed the changing needs of schooling and society. Letter grade only (A-F).

455./555. Sound Synthesis (3)

An intensive course in aspects of sound synthesis in a computer music studio. Students will get hands-on experience designing and editing sounds using computer music software such as cmix, csound, galaxy plus editors. Areas covered include additive, FM, wave (vector) synthesis and resonance modeling. The course will

culminate in a creative composition or research project. Letter grade only (A-F).

456./556. Sampling and Sound Design (3)

An intensive course concentrating on aspects of digital audio, sample editing and sound design using computers, samplers, and hard disk editors/recorders. This course will culminate in a creative project in which collaboration is encouraged (film, theater, media presentations, etc.) Letter grade only (A-F).

457./557. Multimedia Authoring (3)

Students will learn the tools which will enable them to author multimedia presentations and CD ROMs using current hardware and software tools. The course will culminate in a creative project in which students combine computer graphics/animation, text, MIDI, and digital audio. Letter grade only (A-F).

460./566. Studies in Performance Practices (3)

Prerequisite: MUS 360 or consent of instructor. Surveys problems of vocal and instrumental performance in music of the Middle Ages, Renaissance, and Baroque.

467./576. Studies in Gender and Music (3)

Prerequisite: MUS 374 or consent of instructor. Surveys issues surrounding women as musicians (performers and composers), comparative studies of the role men and women have played in music, and feminist criticism of music. Letter grade only (A-F).

468I. Music and Film (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing, and one of the following courses—MUS 190, FEA 310, THEA 122, ENGL 180, or ART 110. Study of the interrelationships of dramatic, visual, and musical arts in film, with a special emphasis on the role of music.

469./569. Music of the Theater (3)

Prerequisites: MUS 374. History and development of music for the stage from 1600 to the present, its conventions and styles. Analysis of representative masterworks.

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). Course may be repeated for a maximum of 6 units.

473./573. Advanced Diction for Singers (2)

Prerequisites: MUS 273A, 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 the Senior and Graduate level vocalist and choral conductor. Special studies possible in other languages. Letter grade only (A-F).

474./574. Commercial Arranging (3)

Prerequisite: MUS 372 or consent of instructor. Arranging and scoring of the various types of commercial ensembles in the styles demanded by contemporary performance practices.

477A-B./577A-B. Piano Accompanying (2-2)

Prerequisite: MUS 277B or consent of instructor. Instruction and training in the art and the techniques of accompanying singers, instrumentalists, and ensembles. (Lecture 1 hr, activity 3 hrs)

478./578. Musical Instruments of the World (3)

Prerequisites: MUS 360 or consent of instructor. Open to music majors and minors. Study of the origins and history of musical instruments in the 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.

482./582. Instrumental Rehearsal Techniques and Literature (3)

Procedures for organization and development of instrumental programs and literature for performing groups.

483A./583A. Choral Repertoire I (2)

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)

Survey of choral and choral/orchestral works from the Renaissance to the 20th century. Letter grade only (A-F).

484. Arranging (2)

Prerequisites: MUS 142B, MUS 241 Instruction in arranging music for ensemble of all sizes both vocal and instrumental. Primarily intended for music education majors. Letter grade only (A-F).

485./585. Music for the Elementary School Child (3)

Prerequisites: MUS 341. A detailed examination of specific approaches to developing musical and aesthetic sensitivity in children. Students will be involved in creating vocal, instrumental, and listening experiences appropriate for use with children in grades K-6. This course is intended for music education and music therapy majors, and others by consent of instructor.

487./587. Microcomputers and Music Learning (3)

Music education applications of microcomputers, including: existing instructional software and hardware, administrative applications, criteria for software and hardware selection, MIDI music composition, and contemporary issues and trends. Letter grade only (A-F).

490. Introduction to Music Cultures (3)

Prerequisite: Completion of GE Foundation requirements. Introduction to the Music of a variety of cultures and ethnic groups representative of the diversity of the United States and of Native cultures found throughout the world. Attention will be focused on the functions that music serves, the social organization of music including age and gender roles, the distinctive characteristics of the music, the types of instruments used, and cultural performance standards.

492./592. Studies in Keyboard Music (3)

Prerequisite: MUS 360 or consent of instructor. Survey of the evolution of keyboard music including the clavichord, harpsichord, piano, and organ from the 13th century to the present.

493./593. Studies in Instrumental Music (3)

Prerequisite: MUS 374. A studies course in instrumental music spanning at least three epochs of music history and covering a minimum of two of four categories: solo sonata (excluding keyboard), chamber music, orchestral/symphonic, and orchestral/concerto. Course may be repeated for a maximum of 6 units.

494./594. Music Learning Theory (3)

This course will investigate the research and resulting methodology developed by Dr. Edwin Gordon as to how children learn music, including the nature of music aptitude, the Music Learning Theory Curriculum, incorporating Music Learning Theory in the music classroom and rehearsal settings, and evaluation and assessment of student learning. Letter grade only (A-F).

*495. Special Topics in Music (3)

Prerequisite: Consent of instructor. Topics of current interest in the various fields of music selected for special presentation and development. Topics will be announced in the *Schedule of Classes*. Course may be repeated to a maximum of 6 units.

A. Kodaly Concept I: Methodology, Solfege and Conducting

Corequisite: Permission of Instructor, MUS 495B must be taken concurrently. A detailed examination of the Kodaly Approach to music education with a particular emphasis on its relevance and application to an American music education. Special emphasis is given to the sequence of concepts for levels K-3. Solfege, folk song analysis and collection, conducting, games and movement will be integrated into the course.

B. Kodaly Concept I: Methodology, Solfege and Conducting

Co-requisite: 495A. A detailed examination of the Kodaly Approach to music education with particular emphasis on its relevance, adaptability and application to an American music education. Special emphasis is given to the sequence of concepts for levels K-3. Solfege, folk song analysis and collection, conducting, games and movement will be integrated in this course.

F. Music and Dance Collaboration (3)

Corequisite: Permission of Instructor. A course that pairs music and dance students for exploration into creating new works for music and dance. Collaborations may take the form of improvisa-

tional, semi-improvisational, or through-composed creations developed by two dancers and two musicians working in a group setting.

496./696. Research Methods (3)

Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as an introduction to graduate study in music. Required of all MA and MM candidates in music.

497. Special Topics in Music Composition (3)

Prerequisite: Consent of instructor. Topics of current interest in the field of music composition selected for special presentation and development. Topics will be announced in the *Schedule of Classes*. Letter grade only (A-F).

A. Songwriting and Analysis

B. Musical Theater Project

C. Advanced Film Scoring Project

D. Contemporary and Computer Music Notation

E. Internet Connectivity and Publishing

F. Musical Interactivity

*499. Special Studies (1-3)

Prerequisite: Consent of instructor. Individual research or group investigation of selected topics. May be repeated for a maximum of six units of credit.

Graduate Level

All graduate music courses are Letter grade only (A-F), unless otherwise stated. Credit/No Credit grading is not an option

500. Major Performance Organization (1)

Prerequisite: Consent of instructor. Course may be repeated for a maximum of 8 units.

B. Symphonic Band

C. Wind Symphony

D. Women's Chorus

E. Forty-Niner Chorus

F. University Choir

G. Chamber Singers

J. Symphony Orchestra

K. Performance

510. Improvisation Styles and Literature (3)

Prerequisites: MUS 372, 393, 474, or permission of instructor. A course of study designed to review the development of 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.

511./411. Film Scoring (3)

Prerequisites: MUS 372, 474, or permission of instructor. A course of study designed to review the development of various musical styles, forms, genres, and significant musical concepts and problems in creating music for films. Will include the study of film mechanics and the emotional and psychological requirements of music underscoring. Time will be spent creating original music for film cues. Letter grade only (A-F). Course may be repeated for a maximum of 6 units.

512. Advanced Techniques in Jazz Composition (3)

Prerequisites: MUS 372, 474, or permission of instructor. A course of study designed to review various composers, musical styles, forms, genres, and significant musical techniques and developments in contemporary jazz composition. Will include the study of major contemporary jazz works with writing assignments based on those styles. Composers who may be studied will include: Duke Ellington, George Russell, Gil Evans, John Lewis, Gunther Schuller, Oliver Nelson, Lalo Schiffrin, Gerald Wilson, Thad Jones, Bob Brookmeyer, Bob Mintzer, Herbie Hancock, and Chick Corea. Course may be repeated for a maximum of 6 units.

513. History and Analysis of Jazz Styles (3)

Prerequisites: MUS 372, 393, or permission of instructor. A study seminar designed to review the development of various musical styles, forms, genres, and significant musical concepts and problems in Jazz History.

515./415. Advanced Concepts in Jazz Theory (3)

Prerequisites: MUS 372, 393, 474, or consent of instructor. A theory course designed to review the development of musical styles, forms, genres, and significant musical concepts and problems in jazz harmony. Theoretical work emphasizes detailed study of harmony, form, idioms, combination of idioms, and use of experimental materials. Study and detailed analysis of major modern jazz artists harmonic technique. Musicians to be studied include: Chick Corea, Keith Jarrett, Herbie Hancock, Joe Farrell, Miles Farrell, Miles Davis, Freddie Hubbard, John Lewis, McCoy Tyner, Clare Fischer, Wayne Shorter, Gil Evans, and Bill Evans. Letter grade only (A-F).

516./416. Pedagogy of Improvisation (3)

Prerequisites: MUS 371, 372, 393, 474, or consent of instructor (students must demonstrate substantial skills in jazz improvisation). A course of study designed to survey the developments of literature and teaching methods dealing with individual instruments in Jazz Improvisation. These methods will provide important information regarding musical styles, and significant musical concepts as applied to individual instruments and vocalists. Theoretical work emphasizes detailed study of methods dealing with technique, harmony, forms, digital patterns and scales, combination of idioms, use of experimental material, transcriptions, texts, and videos. Letter grade only (A-F).

517./417. Business of Music (3)

An overview of the business and artistic process of the music industry. Topics include popular music, music and media, operation of retail music stores, and film, theatrical, and concert music. Recent changes in digital recording, broadcasting technology, copyright laws, and legal issues are also addressed. Letter grade only (A-F).

519./419. Choral Master Class (1)

Prerequisite: Consent of instructor. Designed for the graduate conducting student, and undergraduate/graduate choral/vocal major. The lecture/practicum format allows each conductor the experience of conducting the laboratory choir (consisting of the enrolled singers and conductors) in a master class setting. Emphasis on advanced conducting, vocal, and rehearsal techniques as well as performance practices. Course may be repeated for 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.

522./422. Advanced Choral Conducting and Literature (2)

Prerequisites: MUS 326 and 327 or consent of instructor. Choral technique, style, and interpretation; choral schools and composers since the 16th century; contemporary secular and sacred choral compositions. Class used as laboratory group.

525./425. 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 the class as a laboratory. Students in 425 must take MUS 382A concurrently.

526./426. Vocal Development (2)

Prerequisite: Consent of instructor. Theory and techniques of teaching voice.

529. Individual Instruction for Music Majors (1)

Open to graduate students in music only. Private lessons in their major performance medium. Application must be made to the Graduate Advisor of the Department of Music during the semester prior to registration. Registration is subject to departmental approval. May be repeated for a maximum of 10 units.

- 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 the lyric theatre: solo and ensemble coachings; intensive language and diction training; preparation and performance of entire role in original language; additional areas include stage management, scheduling, costuming, set construction. (3 hours or more laboratory.) Course may be repeated to a maximum of 4 units.

531. Music Theater (1)

Prerequisite: Consent of Instructor. Performance of musical theater works and operas. Additional areas include stage management, scheduling, costuming, and set construction.

534A./434A. German Song Repertoire (2)

Prerequisite: MUS 273B. 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: MUS 273B. 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)

Prerequisites: MUS 273B or consent of instructor. Two years of voice study, completion of the Department of Music Foreign Language Proficiency Exam (may be waived upon successful completion of 101B level course in French, German, or Italian). Letter grade only (A-F).

541. Seminar in Musical Analysis (3)

Analysis of the forms and techniques of musical compositions in various genres and styles. May be repeated for a maximum of 6 units.

542. Seminar in Advanced Musical Analysis (3)

Advanced analysis in variable topics of the forms and techniques of musical compositions. May be repeated for maximum of 6 units.

543./443. Advanced Orchestration (3)

Prerequisite: MUS 442. Graduate level study in the techniques of arranging, transcribing and composing for standard chamber ensembles, chorus and orchestra. Readings of student orchestrations will be included whenever possible.

544. Composition in Selected Forms (2)

Corequisite: MUS 529X. Graduate level composition in various forms and genres with readings of student works where possible. Letter grade only (A-F).

545. Composition (2)

Prerequisite: MUS 544. Corequisite: MUS 529X. Graduate level composition with emphasis on the development of an individual style. Letter grade only (A-F). May be repeated for a maximum of 4 units.

547./447. Musical Systems of the World (3)

Prerequisites: MUS 342 or consent of instructor. Open to music majors and minors. Study of theoretical systems (pitch, scales, rhythmic treatment, textures, forms) of selected musical cultures of the world. Letter grade only (A-F).

554./454. School, Society, and Music Education (3)

Beginning with the singing school movement and progressing to the present era, this course will provide the student with a historical, in-depth examination of the direction and influence of music education

within America's general education curriculum as it has reflected and addressed the changing needs of schooling and society.

555./455. Sound Synthesis (3)

An intensive course in aspects of sound synthesis in a computer music studio. Students will get hands-on experience designing and editing sounds using computer music software such as cmix, csound, galaxy plus editors. Areas covered include additive, FM, wave (vector) synthesis and resonance modeling. The course will culminate in a creative composition or research project. Letter grade only (A-F).

556./456. Sampling and Sound Design (3)

An intensive course concentrating on aspects of digital audio, sample editing and sound design using computers, samplers, and hard disk editors/recorders. This course will culminate in a creative project in which collaboration is encouraged (film, theater, media presentations, etc.) Letter grade only (A-F).

557./457. Multimedia Authoring (3)

Students will learn the tools which will enable them to author multimedia presentations and CD ROMs using current hardware and software tools. The course will culminate in a creative project in which students combine computer graphics/animation, text, MIDI, and digital audio. Letter grade only (A-F).

561. Seminar in Medieval and Renaissance Music (3)

Prerequisite: MUS 360, or consent of instructor. Topics in the development of musical styles and genres from Gregorian Chant through late sixteenth-century sacred and secular polyphony. Course may be repeated for a maximum of 6 units.

562. Seminar In Baroque Music (3)

Prerequisites: MUS 341, 360, or consent of instructor. Stylistic analysis and inquiry into cultural background of composers and genres. Course may be repeated for a maximum of 6 units.

563. Seminar In Classical Music (3)

Prerequisites: MUS 341, 360, or consent of instructor. Music from the Rococo to the end of the eighteenth century. Philosophical attitudes in relation to the musical styles. Course may be repeated for a maximum of 6 units.

564. Seminar in Romantic Music (3)

Prerequisites: MUS 342, 374 or consent of instructor. Music from Beethoven to the end of the nineteenth century. Course may be repeated for a maximum of 6 units.

565. Seminar In 20th-Century Music (3)

Prerequisites: MUS 342, 374, or consent of instructor. Stylistic analysis and music; aesthetic and socioeconomic problems of contemporary music; survey of new music. Course may be repeated for a maximum of 6 units.

566./460. Studies in Performance Practices (3)

Prerequisite: MUS 360 or consent of instructor. Surveys problems of vocal and instrumental performance in music of the Middle Ages, Renaissance, and Baroque.

569./469. Music of the Theater (3)

Prerequisites: MUS 374. History and development of music for the stage from 1600 to the present, its conventions and styles. Analysis of representative masterworks.

571./471. Studies in Ethnomusicology (3)

Prerequisite: 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). Course may be repeated for a maximum of 6 units.

573./473. Advanced Diction for Singers (2)

Prerequisites: MUS 273A, 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 the Senior and Graduate level vocalist and choral conductor. Special studies possible in other languages. Letter grade only (A-F).

574./474. Commercial Arranging (3)

Prerequisite: MUS 372 or consent of instructor. Arranging and scoring for the various types of commercial ensembles in the styles demanded by contemporary performance practices.

575. Studies in Choral Music (3)

Prerequisite: Consent of instructor. Studies in research techniques for the Choral Musician and exploration of Choral masterworks including score preparation, performance practice considerations, and historical investigation. Rehearsal techniques, principles and procedures necessary to effective choral teaching will also be examined. Course may be repeated for a maximum of 6 units.

576./467. Studies in Gender and Music (3)

Prerequisites: MUS 374 or consent of instructor. Surveys issues surrounding women as musicians (performers and composers), comparative studies of the role men and women have played in music, and feminist criticism of music. Letter grade only (A-F).

577A,B./477A,B. Piano Accompanying (2,2)

Prerequisite: MUS 477B or consent of instructor. Piano major or consent of instructor. Instruction and training in the art and the techniques of accompanying for singers, instrumentalists, and ensembles.

578./478. Musical Instruments of the World (3)

Prerequisites: MUS 360 or consent of instructor. Open to music majors and minors. Study of the origins and history of musical instruments in the 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.

581. Foundations of Music Education (3)

Open to graduate music majors only. A survey of contemporary aesthetic, philosophical, psychological and sociological trends in music education.

582./482. Instrumental Rehearsal Techniques and Literature (3)

Procedures for organization and development of instrumental programs and literature for performing groups.

583A./483A. Choral Repertoire I (2)

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)

Survey of choral and choral/orchestral works from the Renaissance to the 20th century. Letter grade only (A-F).

585./485. Music for the Elementary Child (3)

A detailed examination of specific approaches to developing musical and aesthetic sensitivity in children. Students will be involved in creating vocal, instrumental, and listening experiences appropriate for use with children in grades K-6. This course is intended for Music Education and Music Therapy majors, and others by consent of instructor.

587./487. Microcomputers in Music Learning (3)

Music Education applications of microcomputers, including: existing instructional software and hardware, administrative applications, criteria for software and hardware selection, MIDI music composition, and contemporary issues and trends.

588. Quantitative Issues and Research in Music Education (3)

Prerequisites: MUS 581. Assessment and curriculum development; appropriate techniques and existing tools for the measurement and evaluation of musical behavior; survey and critical analysis of research, especially quantitative, in areas relevant to music education. Design research project appropriate to field.

592./492. Studies in Keyboard Music (3)

Prerequisite: MUS 360 or consent of instructor. Survey of the evolution of keyboard music including the clavichord, harpsichord, piano and organ from the 13th century to the present.

593./493. Studies in Instrumental Music (3)

Prerequisites: MUS 374. A studies course in instrumental music spanning at least three epochs of music history and covering a minimum of two of four categories: solo sonata (excluding keyboard), chamber music, orchestral/symphonic, and orchestral/concerto.

594./494. Music Learning Theory (3)

This course will investigate the research and resulting methodology developed by Dr. Edwin Gordon as to how children learn music, including the nature of music aptitude, the Music Learning Theory cur-

riculum, incorporating Music Learning Theory in the music classroom and rehearsal settings, and evaluation and assessment of student learning.

595. Special 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. Topics will be announced in the *Schedule of Classes*. Course may be repeated to a maximum of 6 units.

A. Kodaly Concept I: Methodology, Solfege and Conducting

Corequisite: Permission of Instructor, MUS 595B must be taken concurrently. A detailed examination of the Kodaly Approach to music education with a particular emphasis on its relevance and application to an American music education. Special emphasis is given to the sequence of concepts for levels K-3. Solfege, folk song analysis and collection, conducting, games and movement will be integrated into the course.

B. Kodaly Concept II: Methodology, Solfege and Conducting

Corequisite: Permission of Instructor, MUS 595A must be taken concurrently. A detailed examination of the Kodaly Approach to music education with a particular emphasis on its relevance and application to an American music education. Special emphasis is given to the sequence of concepts for levels K-3. Solfege, folk song analysis and collection, conducting, games and movement will be integrated into the course.

F. Music and Dance Collaboration

Corequisite: Permission of Instructor. A course that pairs music and dance students for exploration into creating new works for music and dance. Collaborations may take the form of improvisational, semi-improvisational, or through-composed creations developed by two dancers and two musicians working in a group setting.

597./497. Special Topics in 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. Topics will be announced in the *Schedule of Classes*.

A. Songwriting and Analysis

B. Musical Theater Project

C. Advanced Film Scoring Project

D. Contemporary and Computer Music Notation

E. Internet Connectivity and Publishing

F. Musical Interactivity

598. Teaching Music in the University (1)

Prerequisite: position as TA or GA in Department of Music or consent of instructor. A seminar on teaching methods, goals, and objectives; covers regulations and responsibilities; preparation of course materials; assessment and evaluation tools; technology in the classroom. Required of first-term TAs and GAs with teaching responsibilities. Letter grade only (A-F). Course may be repeated for 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. May be repeated for a maximum of six units of credit.

600. Chamber Music (1)

Prerequisite: Consent of instructor. Course may be repeated for a maximum of 8 units.

A. Brass Ensemble

B. New Music Ensemble

C. String Ensemble

D. University String Quartet

E. University Wind Quintet

F. University Brass Quintet

K. Performance

L. Brass Chamber Music

M. Percussion Ensemble

N. Steel Drum Orchestra

O. Woodwind Chamber Music

P. String Chamber Music

R. Collegium-Voc

S. Collegium-Inst

T. Saxophone Ensemble

U. Directed Accompanying

W. Varsity Band

X. World Percussion Group

Y. World/Traditional Music Performance

Z. University Percussion Quartet

601. Jazz Ensemble (1)

Prerequisites: Consent of Instructor. Course may be repeated to a maximum of 8 units.

A. Jazz Ensemble I

B. Jazz Ensemble II

C. Jazz Combos

D. Vocal Jazz Ensemble I

E. Vocal Jazz Ensemble II

629. 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 the Graduate Advisor of the Department of Music during the semester prior to registration. Registration is subject to departmental approval. May be repeated for a maximum of 12 units credit.

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

640. Seminar in Music Theory (3)

Prerequisites: MUS 541 or 542 and consent of instructor. Intensive seminar focusing on analytical and theoretical issues in music. May center on an individual composer, a theoretical technique, or history of theory. Course may be repeated for a maximum of 6 units of degree credit.

645. Seminar in Advanced Composition (3)

Prerequisites: MUS 344A-B, 443, 445, or equivalent. Free composition in the more extended forms for various combinations of instruments including full orchestra and band.

680. Seminar in Instrumental Music Teaching (3)

Prerequisite: Consent of instructor. Principles, procedures, and materials used in teaching instrumental music in the public schools. Special attention given to methods and materials used in instrument classes.

696./496. Research Methods (3)

Principles of research and writing about music, thesis preparation, and citation/bibliographic format. Serves as an introduction to graduate study in music. Required of all MA and MM candidates in music. Letter grade only (A-F).

698. Thesis or Project (2-6)

Planning, research, preparation, and completion of thesis or recital project report. Enrollment limited to graduate students, requires permission of graduate advisor.

NURSING

College of Health and Human Services

Director of Nursing

Loucine Huckabay

Director of Graduate Program

Bonnie Kellogg

Director of Undergraduate Program

Beth Keely

Department Office

Nursing Building (NUR), Room 17

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Faculty

Professors

Margaret Brady

Loucine Huckabay

Leayn Johnson

Kathleen Keller (Emeritus, 2000)

Bonnie Kellogg

Ruth G. Mullins

Barbara J. Nelms

Sharon L. Roberts

Judy E. Smith

Elaine E. White (Emeritus, 2002)

Associate Professors

Lyn Callahan

Kathryn Deitch

Beth Keely

Farideh Khoiny

Nancy Oliver

Barbara White

Assistant Professors

Natalie Cheffer

Eileen Croke

Rebecca Dahlen

David Kumrow

Genevieve Monahan

Students desiring information should contact the department office for dates of opening counseling sessions.

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Bachelor of Science in Nursing

The baccalaureate program offers courses that prepare the student to become a professional nurse. 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 a course of study at the first level, desires further study to expand her or his nursing capabilities to the BSN professional level. Though each category of student enters at different levels, the terminal objectives of the nursing program are the same for both groups. The "basic

student" upon completion of specific courses is eligible to take the examination for licensure to practice as a registered nurse. 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, Washington, DC 20036-1120, phone: 202-887-6791).

The purpose of the bachelor of science program in nursing is to prepare graduates to function as professional nurses in a variety of settings. Graduates are expected to have acquired foundations for continuing professional development.

The curriculum is formulated to help the student develop understanding of self and others, stimulate intellectual curiosity and to develop an ability to work with colleagues to identify and resolve the health problems of individuals and families in a changing society. The professional nurse, while able to assess and intervene where health deviations exist, is committed to the role of maintaining health and preventing illness in self and others.

Bachelor of Science in Nursing - Basic (code NRSGBS01) (132 units)

Admission Under Impaction

Students must apply for admission to the University as an undeclared or pre-nursing major. The number of applicants to nursing exceeds the number that can be accepted. For this reason nursing applicants are subject to criteria in addition to those required for admission to the University. The "basic student" may apply as a new or transfer student. After the student is accepted in NRSG 200 the department submits a change of major to nursing for the student.

To be considered as a nursing major, basic students are required to do the following:

1. Completion of a minimum of 56 semester units of degree credit, including all lower-division General Education requirements, with a cumulative GPA of at least 2.50;
2. Earn a "C" grade or better in all prerequisite courses;
3. Complete a test that assesses ability for logical thinking and problem solving prior to filing an application with the department;
4. Have a personal scheduled interview with a designated nursing faculty member;
5. Submit transcripts of any previous college work to the Nursing Department as well as to the Admissions Office;
6. Students who fulfill the prerequisite requirements will be admitted on a space-available basis, in priority order according to the faculty's judgement of their ability to succeed in the program. California residents are given priority over all other applicants.

Further information regarding admission to program courses is available at group counseling sessions held in the department.

NOTE: A one-time lab fee is charged for student supplies used throughout the pre-licensure courses (sophomore-junior years).

Requirements

Required Prerequisite Courses: CHEM 202, 302, BIOL 207, 208, MICR 200, PSY 100, SOC 100; or equivalent.

Required Support Courses: BIOL 204, 304; FCS 339.

Required Nursing Courses: NRSB 200, 200L, 202, 250, 250L, 260, 260L, 301, 308, 312, 312L, 331, 331L, 341, 341L, 353, 358, 361, 361L, 371, 371L, 400, 402, 402L, 450, 450L, 452A, or B or D, 453L, or 454L or 456L.

Bachelor of Science in Nursing - Registered Nurse (code NRSB02) (131 units)

Admission Requirements

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 transferable units;
4. Obtain malpractice insurance once in the clinical courses;
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 Nursing Department;
7. A passing score on the Writing Proficiency Examination must be earned either prior to or within the first year 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.

All courses offered by the Nursing Department are letter graded unless otherwise specified.

Requirements

Required Support Courses: CHEM 302 and BIOL 304.

One three unit course out of the following science courses: MICR 303, BIOL 309I, and 401; one three unit out of the following counseling courses: SOC 336, PSY 351 and FCS 312I; one three unit course out of the following communication courses: COMM 330, 410, 411, 432, and ANTH 412I; one three unit course out of the following critical thinking or logic courses: COMM 331, PHIL 363, 381, and 382.

Required Nursing Courses: NRSB 312, 312L, 400, 402, 402L, 450, 450L, and one of the following: 452A, and 453L; 452B and 454L; 452D and 456L.

Course of Study

A specific combination of general education, prerequisites, nursing and elective courses totaling 132 units for the basic program and 131 units for the R.N. program are required for graduation. All nursing courses in the nursing program must be taken in sequence. In general, the number

assigned to each nursing course indicates where it occurs in the 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 Nursing Department.

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. The nursing sequence of courses requires a minimum of six semesters for the "basic student". A break in the sequence of nursing courses necessitates readmission on a space-available basis. All courses offered by the Nursing Department are letter graded unless otherwise specified.

Master of Science in Nursing

The master of science degree is available to qualified students who desire advanced preparation in a variety of clinical specialty areas. 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).

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines and community services to promote health.

The focal point in this curriculum is the nursing process with strong components of clinical medical knowledge complemented by behavioral science concepts. Courses are interdependent and have been structured to provide clinical depth in the area of student's choice.

The graduate will have the knowledge and skill to function as an advanced practice nurse in one of several specialty areas. Nursing research skills and the application of nursing theory to practice are major emphases of the curriculum. Each applicant should request a copy of the official transcript of all college course work be sent to the department graduate program of nursing in addition to the copies required by the Office of Admissions and Records.

Prerequisites

1. A bachelor's degree in nursing preferred: A bachelor's degree in a related field will be considered;
2. Current license to practice as a registered nurse in California; PHN Certificate needed for concurrent MSN/MPH program;
3. Admission to graduate standing in nursing at the University;
4. An upper division or graduate course in statistics;
5. A physical assessment course which includes clinical practice (all specialty areas except concurrent MSN/MPH);
6. An upper division of graduate level course in pathophysiology (all specialty areas except concurrent MSN/MPH);
7. An upper division public health nursing course;
8. An overall GPA of 2.75 or better in the last 60 units of the undergraduate BSN Program.

Additional Prerequisites for Concurrent MSN/MPH Program

9. An ethics course
10. A cultural diversity course
11. Graduate Record Examination (GRE) - verbal and quantitative scores.
12. Current professional resume describing applicant's relevant experience.

Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy;
2. Completion of all undergraduate deficiencies;
3. Successful completion of the CSULB Writing Proficiency Examination;
4. Approval of the department graduate advisor and Director of Graduate Studies and Research, College of Health and Human Services.

The M.S. in Nursing requires completion of the required courses in one of the following specialty areas: Adult/Geriatric, Family, Pediatric, Psychiatric/Mental Health. A Nurse Practitioner Certificate is awarded to students who complete the required courses in one of the following Nurse Practitioner specialty areas:

Nurse Practitioner Certificate (code NRSCT01)

Family Nurse Practitioner

Requirements

Completion of NRS 510, 520, 530, 540, 550, 560, 682, 682 A&B, 683, 683 A&B.

Pediatric Nurse Practitioner

Requirements

Completion of NRS 510, 520, 530, 540, 550, 560, 684, 684 A&B, 685, 685 A&B.

Adult-Geriatric Nurse Practitioner

Requirements

Completion of NRS 510, 520, 530, 540, 550, 560, 686, 686 A&B, 687, 687 A&B.

Psychiatric-Mental Health Nurse Practitioner

Requirements

Completion of NRS 510, 520, 530, 540, 550, 560, 688, 688 A&B, 689, 689 A&B.

Health Services (School Nurse) Credential Program (code 600)

The Health Services (School Nurse) credential is required of registered nurses working in the California school system.

Admission

1. Copies of transcripts of Baccalaureate in Nursing and Masters in Nursing (with a Pediatric Nurse practitioner specialty) degrees;
2. Copy of State of California RN licensure and entitlement as a Nurse Practitioner;

3. Three letters/checklists of reference;
4. Completion of the Department of Nursing Graduate Program Application.

Requirements

Completion of the following course work with a grade of "B" or better;

1. NRS 680C and 680L;
2. H SC 430;
3. CD 373.

Master of Science in Nursing

Requirements (code NRSMS01)

1. Completion of a minimum of 36 units in approved upper division and graduate courses;
2. For Family Nurse Practitioner, Pediatric Nurse Practitioner, Adult-Geriatric Nurse Practitioner and Psychiatric-Mental Nurse Practitioner Programs completion of NRS 510 (2 units), 520 (2 units), 530 (2 units), 540 (2 units), 560 (2 units), 596 (3 units) and 695 (3 units) or 698 (4 units). For Women's Health Care, completion of NRS 560 (2 units), 596 (3 units), 660B (3 units), 680A, B, C (at least six units), 680L series (at least 9 units) or 698 (4 units).
3. An overall GPA of 3.0 or better;
4. Completion of an approved thesis or comprehensive examination.

Master of Science in Nursing/Master of Public Health (code NRSMN01)

The Departments of Nursing and Health Science offer a concurrent Master of Science and Master of Public Health degree available to qualified students who desire advanced preparation in the area of public health nursing with a practice focus of primary prevention, illness prevention, and health promotion. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two Departments in each semester in order to provide an intense learning experience. The Master of Science and Master of Public Health (Health Education Option) provides the opportunity for students to increase competence in designing, implementing, and evaluating behavior change programs in preparation for serving in various health agencies.

Health Education Option

Requirements

1. A minimum of 57 units of approved Nursing and Health Science upper division and graduate level courses including: HSC 500 or MICR429; HSC 503 OR BIOL 565; HSC 508, 528, 535, 570, 581, 624, 625; NRS 560, 680A, 680B, 680C; 680AL, 680BL, NRS 680CL or HSC 626 (in lieu of one 3 unit NRS 680L); NRS 596 or HSC 696; NRS 695 or HSC 697 or NRS 698
2. An overall GPA of 3.0 or better in all courses
3. A thesis or a directed project (Department of Health Science only)
4. If a student after entering the concurrent MSN/MPH program returns to a single degree program, all requirements for the single degree program must be met.

Master of Science in Nursing/Master of Science in Health Care Administration (code NRS GMC01)

The Department of Nursing and Health Care Administration Programs offer a concurrent Master of Science in Nursing and Master of Science in Health Care Administration dual degree available to qualified students who desire advanced preparation in the areas of nursing and health care administration with a practice focus as Advanced Practice Nurses in administration. The concurrent program leading to both degrees represents the core accreditation requirements of each degree. Coursework is integrated between the two degree programs each semester in order to provide an intense learning experience.

The philosophy of graduate nurse education is that the practice of nursing is constantly changing as health needs and health delivery systems are altered. Integral to nursing is an ability to work effectively and cooperatively with other disciplines. The joint Master of Science in Health Care Administration and the Master of Science in Nursing provides the opportunity for students to specialize as advanced practice nurses with emphasis in administration and increasing competence in designing, implementing, and evaluating programs in preparation for serving in various health agencies. An important career path for advanced practice nurses is as nurse executive in the variegated segments of the health care industry including entrepreneurial activities. Courses are interdependent and have been structured to provide clinical depth in the areas of nursing and administration.

Each applicant should request that a copy of official transcript of all college course work be sent to the Nursing Department Graduate Advisor and to the Office of Admissions and Records.

Admission Requirements

In addition to the MSN prerequisites

1. Public Health Nurse Certificate, or eligibility for certificate in California.
2. An overall GPA of 3.0 or better; an upper division nursing GPA of 3.0 or better and a science GPA of 3.0 or better. Students who fall below these averages will be evaluated on an individual basis.
3. Submission of quantitative and verbal scores from the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT).
4. Current professional resume describing the applicant's relevant experience.

Advancement to Candidacy

A joint committee, consisting of Nursing and Health Care Administration faculty involved in the program, will review files and make a determination to advance the candidate to graduate status.

Requirements for Completion

1. A minimum of 57 units of approved Nursing and Health Care Administration upper division and graduate level courses including:
The Program of Study: NRS 559, 560, 596, 680A, 680B, 680C, 680AL, 680BL, 680CL, 698, HCA 502, 505, 510, 515, 524, 530, 535, 550, 698
2. An overall GPA of 3.0 or better in all courses.

3. Directed project or a thesis.
4. *Graduate degrees obtained previously may be accepted toward meeting a portion of the unit requirements of the concurrent MSN/MSHCA degree program.
5. If a student after entering the concurrent MSN/MSHCA program returns to a single degree program, all requirements for the single degree program must be met.
* 60% of units must be earned in residence

Courses (NRS G)

Lower Division

200. Introduction to Nursing Health Care (3)

Prerequisites: Admission to nursing program; Corequisites: NRS 200L, 202, BIOL 204, FCS 339 or consent of instructor. Development of concepts of high level wellness and self care. Introduction to physical and social science principles which provide the basis for beginning level nursing theory and practice. Introduction to the nursing process and the framework for nursing practice. Letter grade only (A-F). (Lecture-Discussion, 3 hours)

200L. Introduction to Nursing Health Care Clinical (3)

Prerequisites: Admission to nursing program; Corequisites: NRS 200, 202, BIOL 204, FCS 339 or consent of instructor. This course is designed to provide guided utilization of beginning level theory and skill in a simulation laboratory. Opportunity is provided for the student to experience clinical practice based on the concepts of the nursing process and the framework for nursing practice. Course fee required for materials to be used throughout the prelicensure program; non-refundable fee. Course may be repeated one time. Credit/No credit grading only. (Laboratory 9 hours)

202. Health Care Communication (2)

Prerequisites: Admission to the nursing program, or consent of instructor. Corequisites: NRS 200, 200L, FCS 339, BIOL 204, or consent of instructor. Primary focus is on communication theory, helping modes and communication with diverse people. Introduction to understanding the psycho-social and cultural factors which influence the responses to and on the health professional-client interaction. Clinically oriented simulated projects and activities provide opportunities for application of theory. Letter grade only (A-F). (Lecture-discussion, 2 hours)

250. Intermediate Nursing Health Care (3)

Prerequisites: NRS 200, 200L, 202, BIOL 204, FCS 339, or consent of instructor. Corequisites: NRS 250L, 312, 312L, 260, 260L, BIOL 304; or with consent of instructor. Exploration of the illness experiences and health deviations related to various medical and surgical etiologies and pathological states. The focus is on the independent and collaborative nursing practice utilizing the nursing process. Emphasis is on illness care and health restoration, illness prevention, and health promotion. Multicultural influences on health care are considered. Letter grade only (A-F). (Lecture-discussion 3 hours)

250L. Intermediate Nursing Health Care Clinical Studies (3)

Prerequisites: NRS 200, 200L, 202, BIOL 204, FCS 338, or consent of instructor. Corequisites: NRS 250, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. This course is a clinical practicum focusing on the application of the nursing process and collaborative care to patients experiencing illness and health deviations due to various medical surgical etiologies and pathological states. Letter grade only (A-F). (Laboratory 9 hrs)

260. Older Adult Health Care (2)

Prerequisites: NRS 200, 200L, 202, FCS 339, BIOL 204 or consent of instructor. Corequisites: NRS 260L, 250, 250L, 312, 312L, BIOL 304, or consent of instructor. This course is a study of the delivery of optimum health care to the aging client within the framework of the nursing process. Emphasis is on understanding the unique needs of the aging population, encouraging health promotion and self-care, identifying variable responses of elderly clients to pathological conditions, and maintaining a level of function that promotes quality of life. Letter grade only (A-F). (Lecture-Discussion)

260L. Older Adult Health Care Clinical Studies (2)

Prerequisites: NRSNG 200, 200L, 202, FCS 339, BIOL 204, or consent of instructor. Corequisites: NRSNG 260, 250, 250L, 312, 312L, BIOL 304, or consent of instructor. This clinical course provides the student the experience of applying the nursing process to care of the aging client in a variety of settings. Letter grade only (A-F). (Laboratory 6 hours)

300. Psychological Aspects of Health Care (2)

Prerequisites: NRSNG 330, 330L, 340, 340L, 307, 351 or consent of instructor. Corequisites: NRSNG 360, 360L, 370, 370L, or with consent of instructor. This course presents an exploration of psychosocial concepts, cultural and environmental factors relative to wellness-illness of individuals and family groups with special attention to physically ill individuals. Group interaction is directed toward development of self awareness as well as development of the professional role. Letter grade only (A-F). (Lecture-Discussion)

301. Psychological Aspects of Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSNG 331, 331L, 341, 341L, 358, or consent of instructor. This course presents an exploration of psychosocial concepts, cultural and environmental factors relative to wellness/illness of individuals and family groups with special attention to physically ill individuals. Group interaction is directed toward development of self-awareness as well as development of the professional role. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 300.

307. Human Life Cycle I (2)

Prerequisites: NRSNG 250, 250L, 312, 312L, 260, 260L, BIOL 304 or consent of instructor. Corequisites: NRSNG 330, 330L, 340, 340L, 351; or with consent of instructor. Study of the physiological, social, intellectual and emotional development of persons as individuals and as family members from conception through adolescence, including nursing implications for fostering optimal development. Letter grade only (A-F). (Lecture-Discussion)

308. Human Life Cycle 1 (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, BIOL 304, or consent of instructor. Corequisites: NRSNG 353, 361, 361L, 371, 371L, or consent of instructor. Study of the physiological, social, intellectual and emotional development of persons as individuals and as family members from conception through adolescence including nursing implications for fostering optimal development. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 307.

312. Health Assessment (2)

Prerequisites: NRSNG 200, 200L 202, BIOL 204, FCS 339, or consent of instructor. Corequisites: NRSNG 250, 250L, 260, 260, 312L, BIOL 304, or consent of instructor. This course covers the techniques of history taking and physical examination of healthy individuals. These techniques are used by the nurse in identification of patient problems. (Lecture discussion)

312L. Physical Assessment for Nurses Lab (1)

Prerequisites: NRSNG 200, 200L, 202, BIOL 204, FCS 339, or consent of instructor. Corequisites: NRSNG 250, 250L, 260, 260L, 312, BIOL 304, or consent of instructor. This course provides the opportunity for the student to apply techniques of history taking and physical examination which are used by the nurse in identification of patient problems. Includes demonstration and practice of physical assessment methodology. (Technical activities and laboratory 2 hours).

330. Women's Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 330L, 340, 340L, 307, 351 or consent of instructor. Focus on the family during the childbearing period and common health problems of women. Includes assessment, intervention and evaluation of normal clients and those at risk of complications during pregnancy and/or childbirth and common gynecological problems of women, the childbearing period, gain (adding of family member) and family roles are addressed. Letter grade only (A-F). (Lecture-Discussion)

330L. Women's Health Care Clinical (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 330, 340, 340L, 307, 351 or consent of instructor. This course provides the opportunity to apply theoretical concepts from NRSNG 330 in a supervised clinical setting. Supervised care is provided to the childbearing family at all stages in the cycle-antepartum, intrapartum and postpartum-including the normal newborn and newborn requiring intensive care. Assessment of potential complications and variations from normal, and implementation and evaluation of care are the basis for application of knowledge. Letter grade only (A-F). (Laboratory 9 hours)

331. Critical Care Nursing (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 301, 331L, 341, 341L, 358, or consent of instructor. Advanced study of the critically ill or injured patient in various critical care settings. The course focuses on complex knowledge required to provide nursing care of patients in technologically sophisticated specialty areas. Additional emphasis and specific content will focus on psychosocial and cultural concepts and issues as they related to patients in the critical care settings: Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 360.

331L. Critical Care Nursing Clinical Studies (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 301, 331, 341, 341L, 358, or consent of instructor. Advanced study of the critically ill or injured patient in various critical care settings. The course focuses on complex knowledge required to provide nursing care of patients in technologically sophisticated specialty areas. Additional emphasis and specific content will focus on psychosocial and cultural concepts and issues as they related to patients in the critical care settings: Letter grade only (A-F). (Laboratory 9 Hours). Not open to students with credit in NRSNG 360L.

340. Child Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 330, 330L, 340L, 307, 351 or consent of instructor. Theoretical base for pediatric nursing practice, including the care of the well and ill child from birth through adolescence. Pathophysiology of specific body systems and appropriate nursing interventions are described. Cultural and growth and development variations, psychological development, and family roles and structures are also considered. Letter grade only (A-F). (Lec-Discussion)

340L. Child Health Care Clinical (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304 or consent of instructor. Corequisites: NRSNG 330, 330L, 340, 351, or consent of instructor. Opportunities for the student to apply theoretical concepts from NRSNG 340 in various clinical settings and to a variety of pediatric clients and their families. The student will assess the physical, psychological, and cultural status of the ill child. The student will plan, implement, and evaluate age appropriate nursing care for clients with common pediatric disorders. Letter grade only (A-F). (Laboratory 9 hours)

341. Psychiatric/Mental Health Nursing (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSNG 301, 331, 331L, 341L, 358, or consent of instructor. This course presents the theory base for psychiatric/mental health delivery system. Cultural, ethical, economic and legal influences on mental health will be considered. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 370.

341L. Psychiatric/Mental Health Nursing Clinical (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSNG 301, 331, 331L, 341, 358, or consent of instructor. This course provides the clinical experiences for students to apply the theories learned in NRSNG 341. The student will utilize the nursing process to apply theories and implement care for clients with psychiatric and mental health issues. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 370L.

351. Legal Aspects of Health Care (2)

Prerequisites: NRSNG 250, 250L, 312, 312L, 260, 260L, BIOL 304, or consent of instructor. Corequisite: NRSNG 330, 330L, 340, 340L, 307; or with consent of instructor. This course presents the legal duties and responsibilities of nurses in the 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). (Lecture-Discussion)

353. Legal Aspects of Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, BIOL 304, or consent of instructor. Corequisites: NRSNG 308, 361, 361L, 371, 371L, or consent of instructor. This course presents the legal duties and responsibilities of nurses in the 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). (Lecture-Discussion). Not open to students with credit in NRSNG 351.

357. Human Life Cycle II (2)

Prerequisites: NRSNG 307, 351, 330, 330L, 340, 340L, or consent of instructor. Corequisites: NRSNG 300, 360L, 370, 370L; or with consent of instructor. Study and application to nursing of the physiological, social, intellectual and emotional development of persons as individuals and as family members from young adulthood through old age. Letter grade only (A-F). (Lecture-Discussion)

358. Human Life Cycle II (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 312, 312L, BIOL 304, or consent of instructor. Corequisites: NRSNG 301, 331, 331L, 341, 341L, or consent of instructor. Study and application to nursing of the physiological, social, intellectual, and emotional development as persons as individuals and as family members from young adulthood through old age. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 357.

360. Critical Care Nursing (2)

Prerequisites: NRSNG 330, 330L, 340, 340L, 307, 351, or consent of instructor. Corequisites: NRSNG 360L, 370, 370L, 300, 357, or consent of instructor. Advanced study of the critically ill or injured patient in various critical care settings. The course focuses on complex knowledge required to provide nursing care of patients in technologically sophisticated specialty areas. Additional emphasis and specific content will focus on psychosocial and cultural concepts and issues as they relate to patients in the critical care settings. Letter grade only (A-F). (Lecture-Discussion)

360L. Critical Care Nursing Clinical Studies (3)

Prerequisites: NRSNG 330, 330L, 340, 340L, 307, 351, or consent of instructor. Corequisites: NRSNG 360, 370, 370L, 300, 357, or consent of instructor. Advanced study of the critically ill or injured patient in various critical care settings. The course focuses on complex knowledge required to provide nursing care of patients in technologically sophisticated specialty areas. Additional emphasis and specific content will focus on psychosocial and cultural concepts and issues as they relate to patients in the critical care setting. Letter grade only (A-F). (Laboratory 9 hours)

361. Child Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, BIOL 304, or consent of instructor. Corequisites: NRSNG 308, 353, 361L, 371, 371L, or consent of instructor. Theoretical base for pediatric nursing practice, including the care of the well and ill child from birth through adolescence. Pathophysiology of specific body systems and appropriate nursing interventions are described. Cultural and growth and development variations, psychological development, and family roles and structures are also considered. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 340.

361L. Child Health Care Clinical (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, BIOL 304, or consent of instructor. Corequisites: NRSNG 308, 353, 361, 371, 371L, or consent of instructor. Opportunities for the student to apply theoretical concepts from NRSNG 361 in various clinical settings and to a variety of pediatric clients and their families. The student will assess the physical, psychological, and cultural status of the ill child. The student will

plan, implement, and evaluate age appropriate nursing care for clients with common pediatric disorders. Letter grade only (A-F). (Laboratory 9 Hours). Not open to students with credit in NRSNG 340L.

370. Psychiatric/Mental Health Nursing (2)

Prerequisites: NRSNG 330, 330L, 340, 340L, 307, 351 or consent of instructor. Corequisites: NRSNG 360, 360L, 370L, 300, 357, or consent of instructor. This course presents the theory base for psychiatric/mental health delivery system. Cultural, ethical, economic and legal influences on mental health will be considered. Letter grade only (A-F). (Lecture-Discussion)

370L. Psychiatric/Mental Health Nursing Clinical (3)

Prerequisites: NRSNG 330, 330L, 340, 340L, 307, 351, or consent of instructor. Corequisites: NRSNG 360, 360L, 370, 300, 357, or consent of instructor. This course provides the clinical experiences for students to apply the theories learned in NRSNG 370. The student will utilize the nursing process to apply theories and implement care for clients with psychiatric and mental health issues. Letter grade only (A-F). (Lecture-Discussion)

371. Women's Health Care (2)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, or consent of instructor. Corequisites: NRSNG 308, 353, 361, 361L, 371L, or consent of instructor. Focus on the family during the childbearing period and common health problems of women. Includes assessment, intervention and evaluation of normal clients and those at risk of complications during pregnancy and/or childbirth and common gynecological problems of women, the childbearing period, gain (adding of family member) and family roles are addressed. Letter grade only (A-F). (Lecture-Discussion). Not open to students with credit in NRSNG 330.

371L. Women's Health Care Clinical (3)

Prerequisites: NRSNG 250, 250L, 260, 260L, 301, 312, 312L, 331, 331L, 341, 341L, 358, BIOL 304, or consent of instructor. Corequisites: NRSNG 308, 353, 360, 361L, 371, or consent of instructor. This course provides the opportunity to apply theoretical concepts from NRSNG 371 in a supervised clinical setting. Supervised care is provided to the childbearing family at all stages in the cycle-antepartum, intrapartum and postpartum-including the normal newborn and newborn requiring intensive care. Assessment of potential complications and variations from normal, and implementation and evaluation of care are the basis for application knowledge. Letter grade only (A-F). (Laboratory 9 Hours). Not open to students with credit in NRSNG 330L.

400. Health Care Delivery Systems (3)

Prerequisites: NRSNG 360, 360L, 370, 370L, 300, 357, or consent of instructor; for RNs: NRSNG 307, 357, BIOL 304; or consent of instructor. Corequisites: NRSNG 402, 402L, or consent of instructor. Study of the health care delivery systems with emphasis on the role of nursing within these systems. Emphasis is upon less well defined problems and their causes, original and creative nursing interventions and in-depth study of the impact of political, economic and social issues of the health care delivery system. Letter grade only (A-F). (Lecture-Discussion)

402. Community Health Nursing (3)

Prerequisites: NRSNG 360, 360L, 370, 370L, 300, 357, or consent of instructor. Corequisites: NRSNG 402L, 400; or with consent of instructor. This course focuses on diversified and/or permanent interruptions in the health-illness continuum and associated nursing care for aggregates in non-acute institutions and community facilities. Content emphasizes the variety of life styles and diversified ethnic groups. Letter grade only (A-F). (Lecture-Discussion)

402L. Community Health Nursing Clinical Studies (4)

Prerequisites: NRSNG 360, 360L, 370, 370L, 300, 357, or consent of instructor; for RNs: NRSNG 307, 357, BIOL 304, or consent of instructor. Corequisites: NRSNG 402, 400; or with consent of instructor. This course focuses on developing the expertise to work with diversified and/or permanent interruptions in the health-illness continuum and provides appropriate nursing interventions for aggregates in non-acute facilities. Experiences emphasize providing health care to groups with a variety of life styles and diversified ethnic groups. Letter grade only (A-F). (Laboratory 12 hours)

405./505. Holistic Nursing Interventions Across the Lifespan (3)
Prerequisites: Senior standing or graduate status. This course will present therapeutic touch, meditation, and imagery as interventions grounded in a holistic nursing framework. Students will learn the basics of practicing modality which will enable them to begin incorporating the three modalities into their practice. Letter grade only (A-F).

420. Prepared Childbirth Teachers (7)

Prerequisites: Must be RN, MD, RPT, or other health professional with a bachelor's degree. This program is designed to prepare persons to educate expectant parents in the psychoprophylactic method of childbirth most commonly referred to as the "Lamaze" method of childbirth. Over a 6 month period, this intensive program will cover: childbirth preparation including pregnancy, labor and delivery as well as pain management and teaching strategies. In addition to the 72 classroom hrs (4 units), there are 135 lab hours which include a minimum of 10 labor and delivery observations and 2-3 hours per week observing classes and a student teaching experience. Successful completion of the course makes the participant eligible for certification from the American Society for Psycho-prophylaxis in Obstetrics.

450. Nursing Research and Administration (3)

Prerequisites: NRSNG 400, 402, 402L, 357, BIOL 304, NRSNG 400, or consent of instructor. Corequisites: NRSNG 452, 452L, 450L; or with consent of instructor. The application of the nursing process using research methodology, teaching and learning theory in selected clinical settings. The latter part of the course will focus on leadership and management theories and skills as they relate to clinical practice. Letter grade only (A-F). (Lecture-Discussion 3 hours)

450L. Nursing Research Seminar (1)

Prerequisites: NRSNG 400, 402, 402L, 357, BIOL 304, NRSNG 400, or consent of instructor. Corequisites: NRSNG 452, 452L, 450; or with consent of instructor. The application of the nursing process using research theory in selected clinical settings. Letter grade only (A-F). (Lecture 1 hour)

452A. Advanced Nursing in Critical Care (2)

Prerequisites: NRSNG 400, 402L, 402 or consent of instructor. Corequisites: NRSNG 452L-A, 450, 450L; or with consent of instructor. A study of critical care/emergency department health care delivery systems and theories of management and leadership with their application to selected settings. An emphasis will be placed on the utilization of critical care/emergency department nursing care and nursing management models that incorporate unique client problems in selected patient populations. The integration of critical care/emergency clinical and management knowledge as essential to role fulfillment will be investigated in selected settings. Letter grade only (A-F). (Clinical process)

452B. Advanced Maternal Child Health in Nursing (2)

Prerequisites: NRSNG 400, 402, 402L, or consent of instructor. Corequisites: NRSNG 452L-B, 450, 450L; or with consent of instructor. This course is a study of advanced concepts in maternal-child nursing and of theories of management, leadership, and administration as they are applied to selected settings. An emphasis is placed on the utilization of maternal-child nursing care in in-patient and out-patient health care delivery settings and on nursing management models that incorporate unique client problems in selected patient populations. The integration of advanced maternal-child nursing concepts in clinical settings with management knowledge is investigated in selected settings. Letter grade only (A-F). (Clinical process)

452D. Advanced Nursing in Community Mental Health (2)

Prerequisites: NRSNG 400, 402, 402L, or consent of instructor. Corequisites: NRSNG 452L-D, 450, 450L or consent of instructor. This course is a study of advanced concepts in the area of clinical specialization in community mental health nursing and of theories of management, leadership, and administration as they are applied to selected settings. An emphasis is placed on the utilization of community mental health nursing care and nursing management models that incorporate unique client problems in selected patient populations. The integration of community mental health care clinical and management knowledge essential to role fulfillment in selected settings is investigated. (Clinical process) Letter grade only (A-F).

453L. Advanced Nursing in Critical Care Clinical Studies (4)

Prerequisites: NRSNG 402, 402L, or consent of instructor. Corequisites: NRSNG 452A, 450, 450L or consent of instructor. This course is designed to provide clinical experiences in the critical care/emergency departments of health care delivery systems and application of theories of management and leadership. An emphasis will be placed on the utilization of critical care/emergency department nursing care and nursing management models that incorporate unique client problems in selected patient populations. The integration of critical care/emergency clinical and management knowledge as essential to role fulfillment will be investigated in selected settings. Letter grade only (A-F). (Laboratory 12 hours)

454L. Advanced Nursing in Maternal-Child Clinical Studies (4)

Prerequisites: NRSNG 400, 402, 402L, or consent of instructor. Corequisites: NRSNG 452B, 450, 450L; or with consent of instructor. This course is designed to provide clinical experiences in the application of advanced concepts in maternal-child nursing and the application of theories of management, leadership, and administration as they are applied to selected settings. An unique client problems in selected patient populations encountered in maternal-child nursing. Opportunity to integrate clinical and management knowledge in maternal-child clinical settings is provided. Letter grade only (A-F). (Laboratory 12 hours)

456L. Advanced Nursing in Community Mental Health Clinical (4)

Prerequisites: NRSNG 400, 402, 402L, or consent of instructor. Corequisites: NRSNG 452D, 450, 450L or consent of instructor. This course is designed to provide clinical application of advanced concepts in Community Mental Health and application of theories of management, leadership, and administration in selected settings. An emphasis is placed on the utilization of community mental health nursing care and nursing management models that incorporate unique client problems in selected patient populations. The integration of community mental health clinical and management knowledge essential to role fulfillment in selected settings is investigated. Letter grade only (A-F). (Laboratory 12 hours)

481I. Parenting (3)

Prerequisites: ENGL 100 and upper division status. Effective parenting with emphasis on common parenting concerns and the developmental tasks of parents and children. Letter grade only (A-F).

***482. Health Assessment of the Aging Client (3)**

Prerequisites: GERN 400I or equivalent and upper division standing or consent of instructor. Assessment of the physical, psychological and social status of the aging client as these factors affect health and well being. Course is designed to assist those working with the aging client in a variety of settings to identify actual or potential health related problems using a variety of tools and techniques. Same course as GERN *482. (Lecture-discussion, 3 hours)

490. Independent Study (1-3)

Prerequisite: Consent of any nursing faculty. Students who have made prior arrangements with a faculty advisor for appropriate learning objectives may enroll. May be repeated to a maximum of six units.

499./599. Special Topics in Nursing (1-3)

Prerequisite: Consent of instructor. Topics consistent with contemporary nursing or curricular trends will be announced each semester. Credit may be earned for course each time a new topic is offered.

Graduate Level

502. Genetics in Nursing Practice (3)

Prerequisites: Senior standing or graduate status or consent of instructor. This course will provide an overview of the genetics implications for nurses as they provide health services to clients of all ages, diverse ethnic, cultural, life-style and geographic areas. This course will explore the basic mechanisms of genetic inheritance and the impact that genetics has on health promotion and disease prevention. Students will examine the social, ethical, legal, cultural, policy, and professional implications of the integration of genetics into their health practice. Letter grade only (A-F).

505./405. Holistic Nursing Interventions Across the Lifespan (3)

Prerequisites: Senior standing or graduate status. This course will present therapeutic touch, meditation, and imagery as interventions grounded in a holistic nursing framework. Students will learn the basics of practicing modality which will enable them to begin incorporating the three modalities into their practice. Letter grade only (A-F).

510. Advanced Pathophysiology for Advanced Practice Nursing (2)

Prerequisites: Admission to the graduate nursing program or consent of instructor. This course presents the principles of human functional and homeostatic mechanisms, as well as underlying mechanisms operant during disturbance of human functional and homeostatic mechanisms. The course materials build upon the framework of understanding developed in the undergraduate upper-division pathophysiology course. Understanding of concepts of integration and communication between organs systems will be explored and will be applied to gain greater knowledge of disturbances at the cellular level which result in aberrant organ and system function. This course is prerequisite to the nursing 680 series courses. Letter grade only (A-F). (Lecture-Activity)

520. Advanced Pharmacology for the Advanced Practice Nurse (2)

Prerequisites: Admission to the graduate nursing program, must be taken concurrent with NRS 510 or consent of the instructor. This course is designed to meet the needs of students in the graduate nursing program and advanced practice nurses for advanced knowledge about pharmacological agents use full in the management of a variety of common clinical situations. This course is also designed to meet the BRN pharmacology course requirement for the nurse practitioner to furnish drugs or devices pursuant to the Business and Professions Code, Section 2836.1. A theoretical framework establishing the importance of advanced pharmacological knowledge to the full implementation of the nurse practitioner role will be presented. Following a review of the basic concepts, a physiological systems approach will be applied which will allow a greater understanding of the effect of common drugs utilized in primary care/family planning settings in the provision of perinatal care, family planning services and/or routine health care in essentially healthy persons. Ethical/legal issues, as well as a review of the California furnishing bill and standardized procedures will be covered. This course is not designed to supersede or replace dosage and treatment protocols established within the nurse practitioner's setting for clinical practice. The course is prerequisite to the nursing 680 series courses. Letter grade only (A-F). (Lecture-Discussion)

530. Advanced Physical Assessment for Advanced Practice Nurses (2)

Prerequisites: Admission to the graduate nursing program or consent of the instructor. This core course is designed to provide through classroom instruction and experiences, advanced knowledge and diagnostic skill development in physical assessment of client often encountered by the advanced practice nurse. The assessment role of the nurse is further expanded to include client education and the cooperative synthesis of wellness strategies to optimize health. This course is prerequisite to the NRS 680 series courses. Letter grade only (A-F). (Technical activity and laboratory 4 hours)

540. Health Care Economics, Policy, and Management for Advanced Practiced Nursing (2)

Prerequisites: Admission to the graduate nursing program or consent of instructor. This course examines the advanced practice nurse's relationship to policy formation, health care economics, and health care organizations. Analysis of the health care delivery system will include the increasing levels of public, governmental, and third party participation in policy formation. Emphasis of this course will be analysis of health policy and its effect on the practice environment. The course explores the issues of health care organization, health care financing, and delivery within integrated care systems to include community and the organization of community based systems of care. Students are prepared to provide quality cost effective care, participate in the design and implementation of

care in a variety of health systems, utilize computerized data bases, and assume a leadership role in managing human, fiscal, and physical health care resources. Included is the definition of primary health care by the World Health Organization which addresses the issues of poverty and public health, and the relationship of these issues to improving health care delivery and client outcomes. This course is prerequisite to the NRS 680 series courses. Letter grade only (A-F). (Lec-Discussion)

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. This course focuses on the cultural sensitive nursing principles of advanced practice nursing, selected strategies, and negotiations with patients. An emphasis is placed on complex psychosocial assessment, interdisciplinary approaches and special populations. This course is prerequisite to the NRS 680 series course. Letter grade only (A-F). (Lecture-Discussion)

556A. Conditions of Learning and Instruction in Nursing (3)

A systematic study of theories of learning and instruction as they apply to patient and/or 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.

556B. Curriculum Development in Nursing (3)

A critical appraisal of patterns of nursing education as considered from the standpoint of the changing order. A systematic study of principles of curriculum development as they apply to different types of nursing programs. Focuses on the relationship between philosophy, objectives, the selection and organization of learning experiences and the evaluative process.

556L. Theoretical Concepts Laboratory of Nursing Education (1-4)

Instructional skills and the application of theories of learning and instruction to the practice and teaching of nursing within a supervised practice-teaching situation. Reference to ways teaching skills relate to broader educational issues such as teaching/learning theory. May be repeated for a maximum of 4 units.

559. Nursing Administration (3)

Theories, issues and application of techniques pertaining to management applicable to nurses in the clinical setting.

560. Professional Foundations of Theoretical and Professional Roles in Advanced Nursing Practice (2)

Prerequisites: Admission to graduate nursing program or consent of instructor. The study of theoretical framework and professional roles influencing advanced practice nursing. Specifically, content will address the dynamic nature of the profession and its roles. Student will review and analyze the major theoretical frameworks for advanced practice from nursing and related fields. They will be introduced to the changing nature of role ambiguity, role boundaries in addition to the need to work in a collaborative relationship with other health professionals. This course is prerequisite to the NRS 680 series courses. Letter grade only (A-F). (Lecture-Discussion)

590. Independent Study (1-3)

Prerequisite: Consent of a nursing faculty member. Independent research under the supervision of a nursing faculty member.

596. Research Methods in Nursing (3)

Prerequisites: Admission to graduate program in nursing, upper division statistic course. The focus of this course is on the research process in nursing, including the use and testing of nursing theories, development of research proposals that includes conceptualization of the problem, literature search, study design, data collection, analysis and interpretation of findings. The legal and ethical aspects of research are stressed. This course is prerequisite to the nursing 680 series courses. Letter grade only (A-F). (Lecture-Discussion)

599./499. Special Topics in Nursing (1-3)

Prerequisite: Consent of instructor. Topics consistent with contemporary nursing or curricular trends will be announced each semester. Credit may be earned for course each time a new topic is offered.

660B. Theoretical Base for Advanced Nursing Practice (3,3)
Prerequisites: Pathophysiology, Physical Assessment or consent of instructor. Study of the relationship of psycho-social theory to health care with an emphasis on the application of theory to clinical practice. Various sections will focus on different areas of clinical interest.

680A,B,C. Theories for Extended Nursing Practice (3,3,3)
Prerequisites: A physical assessment course (including 60 hours laboratory practice), BIOL 304 or consent of instructor. Normal and pathological conditions and the management theory base applicable for the advanced practice nurse in clinical areas of concentration. May be repeated for a maximum of 6 units in each suffix. Letter grade only (A-F).

680L. Clinical Studies in Nursing (3)
A laboratory course offering clinical experience in selected settings to prepare the student for advanced nursing practice. May be repeated for credit with a change of topic. A maximum of nine units for degree credit.

682. Family Theories for Advance Practice Nursing I (3) F
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 550, 560, 506 or consent of instructor. The primary focus of this course is diagnosis, treatment and management of common and pathological conditions by the family nurse practitioner. A management and family theory base applicable for the role of the family nurse practitioner is presented. Letter grade only (A-F).

682A. Family Clinical Studies for Advance Practice Nursing I (3) F
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; clinical pre-test; corequisite, NRSNG 682. This is the first of two courses designed to allow the student the opportunity to apply theoretical knowledge in supervised clinical practice in family practice. An emphasis is placed on socialization into the family nurse practitioner role. Clinical seminars assist the student to apply theoretical concepts and expand clinical knowledge. Credit/No Credit grading only. (Laboratory 9 hours)

682B. Family Clinical Studies for Advance Practice Nursing II (3) F
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 682. This is the second of two course designed to allow the student the opportunity to apply theoretical knowledge in supervised clinical practice in family practice. An emphasis is placed on socialization into the family nurse practitioner role. Clinical seminars assist the student to apply theoretical concepts and expand clinical knowledge. Credit/No Credit only. (Laboratory 9 hours)

683. Family Theories for Advance Practice Nursing II (3) S
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor. The primary focus of this course is diagnosis, treatment and management of common and pathological conditions by the family nurse practitioner. A management and family theory base applicable for the role of the family nurse practitioner is presented. Letter grade only (A-F).

683A. Family Clinical Studies for Advance Practice Nursing III (3) S
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor, clinical pre-test; corequisite: NRSNG 683. This is first of two courses designed to allow the student additional opportunity to apply theoretical knowledge in supervised clinical practice in family practice. An emphasis is placed on further socialization into the family nurse practitioner role. Clinical seminars assist the student to apply theoretical concepts and expand clinical knowledge. Letter grade only (A-F). (Laboratory 9 hours)

683B. Family Clinical Studies for Advance Practice Nursing IV (3) S
Prerequisites: Admission to graduate nursing program, NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 683. This is second of two courses designed to allow the student additional opportunity to apply theoretical concepts and expand clinical knowledge. Letter grade only (A-F). (Laboratory 9 hours)

684. Pediatric Theories for Advance Practice Nursing I (3) F
Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 540, 550, 560, 596 or consent of instructor. This course presents the theory base for well child care applicable to the role of the pediatric nurse practitioner. Content focuses on preventive health care and well child management of children from infancy through adolescence. The specific topics covered are well child, anticipatory guidance, family theory, child and family response to stress, childhood maltreatment, violence and substance abuse, professional issues and related research. Letter grade only (A-F).

684A. Pediatric Clinical Studies for Advance Practice Nursing I (3) F
Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 684. This course is the first of two clinical laboratory components of the pediatric specialty program. The student has the opportunity to demonstrate the application of theory from concurrent course work. Clinical experiences are available which will allow the student to give preventive health care, to manage the well child and to manage common pediatric problems. Credit/No Credit grading only. (Laboratory 9 hours)

684B. Pediatric Clinical Studies for Advance Practice Nursing II (3) F
Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 684. This course is the second of two clinical laboratory components of the pediatric specialty program. The student has the opportunity to demonstrate the application of theory from concurrent course work. Clinical experiences are available which will allow the student to give preventive health care, to manage the well child, and to manage common pediatric problems. Credit/No Credit grading only. (Laboratory 9 hours)

685. Pediatric Theories for Advance Practice Nursing II (3) S
Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 540, 550, 560, 596 or consent of instructor. The primary focus of this course, at the advanced level, is diagnosis, treatment and management of common pediatric condition/disorders by the pediatric nurse practitioner. The specific topics covered are the management of common pediatric dermatological, ENT, ophthalmic conditions, allergy, respiratory, gastrointestinal, genitourinary, cardiovascular, neurological/learning disorders, infectious diseases, hematological, congenital anomalies/genetic disorders, endocrine, orthopedic and sport injuries. Letter grade only (A-F).

685A. Pediatric Clinical Studies for Advance Practice Nursing III (3) S
Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 685. This is the first of two clinical laboratory courses of the pediatric nurse practitioner program that provides experience for the management of common pediatric health care problems. The student has the opportunity to demonstrate, at an advanced level, the application of theory from previous and concurrent course work that deals with the assessment, diagnosis, treatment, management and prevention of common pediatric health care problems in the clinical setting. Letter grade only (A-F). (Laboratory 9 hours)

685B. Pediatric Clinical Studies for Advance Practice Nursing IV (3) S
Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 685. This is the second of two clinical laboratory courses of the pediatric nurse practitioner program that provides experience for the management of common pediatric health care problems. The student has the opportunity to demonstrate, at an advanced level, the application of theory from previous and concurrent course work that deals with the assessment, diagnosis, treatment, management and prevention of common pediatric health care problems in the clinical setting. Letter grade only (A-F). (Laboratory 9 hours)

686. Adult/Geriatric Theories for Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 540, 550, 560, 596 or consent of instructor, a clinical pretest. This course presents the epidemiology, etiology, differential diagnosis, management and prevention of selected health problems of the adult/geriatric patient in primary, secondary, and tertiary settings and the role of the nurse practitioner in these settings. The course provides information regarding normal and pathological conditions and management theory base applicable for the role of the advanced practice nurse providing care to the adult in a changing environment of healthcare. Letter grade only (A-F).

686A. Adult/Geriatric Clinical Studies in Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor, a clinical pretest; corequisite: NRSNG 686. This course is the first of two designed to allow the adult/geriatric nurse practitioner student the opportunity to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. An emphasis is placed on beginning socialization into the nurse practitioner role. Credit/No Credit grading only. (Laboratory 9 hours)

686B. Adult/Geriatric Clinical Studies in Advance Practice Nursing II (3) F

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; a clinical pretest; corequisite NRSNG 686. This course is the second of two designed to allow the adult/geriatric nurse practitioner student the opportunity to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. An emphasis is placed on beginning socialization into the nurse practitioner role. Credit/No Credit grading only. (Laboratory 9 hours)

687. Adult/Geriatric Theories for Advance Practice Nursing II (3) S

Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 540, 550, 560, 596 or consent of instructor, a clinical pretest. This course presents continued epidemiology, etiology, differential diagnosis and management and prevention of additional selected health problems of the adult/geriatric patient in primary, secondary, and tertiary settings and a further delineation of the role of the nurse practitioner in these settings. The course provides information regarding normal and pathological conditions and the management theory base applicable for the role of the advanced practice nurse providing care to the adult in a changing environment of health care. Letter grade only (A-F).

687A. Adult/Geriatric Clinical Studies in Advance Practice Nursing III (3) S

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor, a clinical pretest; corequisite: NRSNG 687. This clinical course is the first of two designed to allow the adult/geriatric nurse practitioner student the opportunity to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. An emphasis is placed on continuing to socialize into the nurse practitioner role. Letter grade only (A-F). (Laboratory 9 hours)

687B. Adult/Geriatric Clinical Studies in Advance Practice Nursing IV (3) S

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor, a clinical pretest; corequisite: NRSNG 687. This clinical course is the second to two designed to allow the adult/geriatric nurse practitioner student the opportunity to apply theoretical knowledge in supervised clinical practice with adult and geriatric patients. An emphasis is placed on continuing to socialize into the nurse practitioner role. Letter grade only (A-F). (Laboratory 9 hours)

688. Psychiatric/Mental Health Theories for Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 540, 550, 560, 596 or consent of instructor. Study of the pathology, diagnostic methods, indications for referral, and man-

agement for nurse practitioner students of the medical, psychological, and social problems of clients of psychiatric facilities and community mental health agencies. Letter grade only (A-F).

688A. Psychiatric – Mental Health Clinical Studies for Advance Practice Nursing I (3) F

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 688. This course is the first of two supervised clinical practicums for nurse practitioner students which is focused on the application of mental health concepts. Theories from the prerequisite and concurrent nursing theory courses are applied and tested in the clinical setting. Credit/No Credit only. (Laboratory 9 hours)

688B. Psychiatric – Mental Health Clinical Studies for Advance Practice Nursing II (3) F

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560 or consent of instructor; corequisite: NRSNG 688. This course is the second of two supervised clinical practicums for nurse practitioner students which is focused on the application of mental health concepts. Theories from the prerequisite and concurrent nursing theory courses are applied and tested in the clinical setting. Credit/No Credit grading only. (Laboratory 9 hours)

689. Psychiatric – Mental Health Theories for Advance Practice Nursing II (3) S

Prerequisites: Admission to graduate nursing program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor. This course is the continued study at an advanced level of the pathology, diagnostic methods, indications for referral, and management for nurse practitioner students of the medical, psychological, and social problems of client of psychiatric facilities and community mental health agencies. Letter grade only (A-F).

689A. Psychiatric – Mental Health Clinical Studies for Advance Practice Nursing III (3) S

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 689. This course is the first of two supervised clinical practicums for nurse practitioner students focused on the application of complex mental health concepts. Theories from the prerequisite and concurrent nursing theory courses are applied and tested in the clinical setting. Letter grade only (A-F). (Laboratory 9 hours)

689B. Psychiatric – Mental Health Clinical Studies for Advance Practice Nursing IV (3) S

Prerequisites: Admission to graduate program and NRSNG 510, 520, 530, 540, 550, 560, 596 or consent of instructor; corequisite: NRSNG 689. This course is the second of two supervised clinical practicums for nurse practitioner students focused on the application of complex mental health concepts. Theories from the prerequisite and concurrent nursing theory courses are applied and tested in the clinical setting. Letter grade only (A-F). (Laboratory 9 hours)

695. Professional Literature (3)

Prerequisites: NRSNG 596, consent of graduate and program advisors, advancement to candidacy. Critical analysis and synthesis by comparative review of professional literature in nursing practice, theory, and research. Not open to students taking Nursing 698. Letter grade only (A-F).

698. Thesis (1-4)

Prerequisites: Admission to Graduate Nursing Program, advancement to candidacy, NRSNG 596, and consent of department graduate advisor. Planning, preparation and completion of a thesis in clinical nursing.

OCEAN STUDIES INSTITUTE

College of Natural Sciences and Mathematics

Director

Richard Pieper

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

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, 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 active reflect the broad applied approach of interdisciplinary, mission-oriented projects in harbors and the coastal zone.

Courses (OSI)

Upper Division

313. Marine Invertebrate Zoology (4)

Prerequisite: BIOL 211A, B. Basic taxonomy, morphology, ecology, and distribution of invertebrates, excluding insects; emphasis on local marine forms. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

353. Marine Biological Processes (4)

Prerequisite: BIOL 211A, B. Study of pelagic and benthic marine ecosystems, including human influences. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

417./517. Marine Benthic Invertebrates of Santa Catalina Island (4)

Prerequisite: OSI 313 or 353. (Undergraduates register in OSI 417; graduates register 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. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

419./519. Marine Ichthyology (4)

Prerequisite: OSI 353. (Undergraduates register in OSI 419; graduates register in OSI 519.) Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

420./520. Ecology of Marine Fishes (4)

Prerequisite: OSI 419/519. (Undergraduates register in OSI 420; graduates register in OSI 520.) Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

425./525. Marine Phycology (4)

Prerequisite: BIOL 211A, B. (Undergraduates register in OSI 425; graduates register in OSI 525.) Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

455./555. Marine Ecological Processes (4)

Prerequisite: OSI 353 or BIOL 350; statistics recommended. (Undergraduates register in OSI 455; graduates register in OSI 555.) Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects. (Lecture 2 hrs., field 6 hrs.) Course fee may be required.

458./558. Ecology of Southern California Marine Plankton (4)
Prerequisite: OSI 353. (Undergraduates register in OSI 458; graduates in OSI 558.) Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

345. Physiology of Marine Animals (4)
Prerequisite: BIOL 211A, B. Comparison of the fundamental physiological processes of the major marine phyla, both invertebrate and vertebrate. Laboratory and field investigations will be directed toward marine animals living in the local waters. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

460./560. Oceanographic Techniques (4)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 460; graduates register in OSI 560.) An interdisciplinary survey of techniques and procedures used in collection of oceanographic data in the fields of biology, chemistry, geology, and physics. Students become familiar with oceanographic equipment and methodologies that emphasize on-the-job training aboard ship and in the laboratory. (Lecture 2 hrs.; laboratory and field 6 hrs.) Course fee may be required.

490./590. Special Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 490; graduates register in OSI 590.) Topics from selected areas of Ocean Studies. Course content will vary from section to section. May be repeated for credit with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to six units. Topics to be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.) Course fee may be required.

490L./590L. Laboratory in Special Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 490L; graduates register in OSI 590L.) Topics from selected areas of Ocean Studies. Course content will vary from section to section. May be repeated for credit with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to six units. Topics to be announced in the *Schedule of Classes*. (Laboratory 3-9 hrs.) Course fee may be required.

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.

Graduate Level

517./417. Marine Benthic Invertebrates of Santa Catalina Island (4)
Prerequisite: OSI 313 or 353. (Undergraduates register in OSI 417; graduates register 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. (Lecture 2 hrs, laboratory and field 6 hrs.) Course fee may be required.

519./419. Marine Ichthyology (4)
Prerequisite: OSI 353. (Undergraduates register in OSI 419; graduates register in OSI 519.) Taxonomy, morphology, physiology, and ecology of fishes. Emphasis on local marine fishes. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

520./420. Ecology of Marine Fishes (4)
Prerequisite: OSI 519/419. (Undergraduates register in OSI 420; graduates register in OSI 520.) Fish species assemblages, general ecology, adaptations, and behavioral ecology of marine fishes. Emphasis on local marine fishes. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

525./425. Marine Phycology (4)
Prerequisite: BIOL 211A, B. (Undergraduates register in OSI 425; graduates register in OSI 525.) Taxonomy, phylogeny, ecology, and physiology of marine algae; emphasis on local marine forms. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

555./455. Marine Ecological Processes (4)
Prerequisite: OSI 353 or BIOL 350; statistics recommended. (Undergraduates register in OSI 455; graduates register in OSI 555.) Discussion of field studies on ecological principles related to marine communities. Includes an individual field research project and class projects. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

558./458. Ecology of Southern California Marine Plankton (4)
Prerequisite: OSI 353. (Undergraduates register in OSI 458; graduates register in OSI 558.) Physiological ecology of marine phytoplankton and zooplankton as a basis for study of structure, dynamics, and modeling of plankton communities. (Lecture 2 hrs., laboratory and field 6 hrs.) Course fee may be required.

560./460. Oceanographic Techniques (4)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 460; graduates register in OSI 560.) An interdisciplinary survey of techniques and procedures used in collection of oceanographic data in the fields of biology, chemistry, geology, and physics. Students become familiar with oceanographic equipment and methodologies that emphasize on-the-job training aboard ship and in the laboratory. (Lecture 2 hrs.; laboratory and field 6 hrs.) Course fee may be required.

590./490. Special Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 490; graduates register in OSI 590.) Topics from selected areas of Ocean Studies. Course content will vary from section to section. May be repeated for credit with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to six units. Topics to be announced in the *Schedule of Classes*. (Lecture 1-3 hrs.) Course fee may be required.

590L./490L. Laboratory in Special Topics in Ocean Studies (1-3)
Prerequisite: Consent of instructor. (Undergraduates register in OSI 490L; graduates register in OSI 590L.) Topics from selected areas of Ocean Studies. Course content will vary from section to section. May be repeated for credit with the consent of instructor. Maximum credit for OSI 490/590 and/or 490L/590L limited to six units. Topics to be announced in the *Schedule of Classes*. (Laboratory 3-9 hrs.) Course fee may be required.

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.

OCCUPATIONAL STUDIES

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Students desiring information should contact the department office for referral to one of the faculty advisors, Credential Analyst, Graduate Advisor, Undergraduate Advisor, Designated Subjects Credential Coordinator, or Distance Learning Coordinator.

Occupational Studies is designed to enable persons to gain the competencies requisite for successful employment in secondary schools, community colleges and adult programs as teachers, coordinators and supervisors of vocational, occupational, career preparation, and related human resource development programs.

Instructional programs are offered on- and off-campus throughout California and out-of-state. Most off-campus instruction is offered via distance learning modes of video, Internet, integrated live instruction, and combinations of these three.

Designated Subjects Credential (code 300)

This program of instruction identifies and develops on an individualized basis the teaching competencies requisite for successful employment in designated subjects programs, as required by the California Commission on Teacher Credentialing.

Bachelor of Science in Occupational Studies

California State University, Long Beach (CSULB) offers a Bachelor of Science Degree in Occupational Studies. This degree is targeted primarily towards employed persons serving in business, industry, labor, government and occupational education teachers and counselors serving in the public, private and non-profit sectors. The BS program will help these people grow in level of professional participation in their various occupational subject areas, knowledge of the respective training and development methods, and problems of work-life education in an information and technological society. The primary goal of the program is to improve the competencies of human resource development personnel to instruct in technical subjects, to design curriculum, to advise learners, and to evaluate curriculum and learner performance.

The Bachelor of Science degree requires 124 units of college work. The major consists of 73 units comprised of (a) a unit core of 27 units, (b) foundation and occupational competency coursework (12 to 25 units depending on student's option), and (c) options of 25 to 34 units. The foundation and occupational competency courses, generally lower division, are elected from (a) the social and behavioral sciences, (b) occupationally based technical courses, or (c) a combination of both. Nine units of occupational competence may be granted for prior learning in the Bilingual, Corporate Training, Research and Evaluation, and Transitional Services options.

Option in Bilingual Occupational Instruction (code OCSTBS01) (124 units)

The bilingual occupational instruction option prepares students for human resource development positions as curriculum development and instruction specialists in the bilingual vocational training (BVT) method developed in research sponsored by the Office of Bilingual Education and Minority Language Affairs, United States Department of Education. Graduates of this option are employed as teachers, curriculum development specialists, and job developers in private occupational education institutions, community based organizations, and private industry. It is highly recommended that those selecting this option possess or develop an elementary speaking and reading proficiency in a second language. The required courses for this option are: OCST 300, 330, 410, 411, 412, 413, 418, 420, 422, 456, 461, 462, 480, 485; EDSE 435; EDP 454, 485; and LING 329, 486. This option requires 15 units of foundation and occupational competency coursework determined in consultation with an Occupational Studies department academic advisor.

Option in Corporate Training and Development (code OCSTBS02) (124 units)

The option in corporate training and development prepares students for human resource development positions as training specialists, training materials developers, and training systems analysts. These specialists serve as support personnel assisting in the analysis and interpretation of job analysis data and translating these data into training and development programs. They assist technical content experts in the design and delivery of

instruction. The required courses for this option are: OCST 300, 330, 388I, 410, 411, 412, 417I, 418, 420, 435, 456, 470, 480, 485; OCST 421 or approved alternative ET 202; OCST 461 or 462; OCST 490 or an approved alternative from one of the following: ET 307, 309. This option requires 21 units of foundation and occupational competency coursework determined in consultation with an Occupational Studies department academic advisor.

Option in Research and Evaluation (code OCSTBS03) (124 units)

The option in research and evaluation prepares students for careers as labor market analysts, training evaluation specialists, and evaluation research specialists in public postsecondary education, government employment development agencies, and private industry. These specialists develop evaluation guidelines, evaluate training and development programs including maintaining task lists and training program descriptions, determine the effectiveness and currency of instructional content and methods, and assess trainee performance in training and on-the-job. The required courses for this option are: OCST 300, 330, 410, 411, 412, 418, 420, 421, 422, 456, 480, 483, 485, 490; EDP 400, 419. This option requires 25 units of foundation and occupational competency coursework determined in consultation with an Occupational Studies department academic advisor.

Option in Transition Services (code OCSTBS04) (124 units)

The option in transition services prepares students for professional positions in secondary and postsecondary occupational special education, rehabilitative services, and related adult services. Graduates develop competencies as educational and human resource development specialists in transition services for individuals with disabilities. The curriculum for this option was developed under research sponsored by the Office of Special Education and Rehabilitation Services, United States Department of Education. The required courses for this option are: OCST 300, 330, 360, 410, 411, 412, 418, 420, 422, 456, 460, 463, 480, 485, 497, 499; OCST 461 or 462; EDP 350, 405; REC 416 or an approved alternative from one of the following: FCS 413, 418; EDP 430, SW 350 or SW 351. This option requires 12 units of foundation and occupational competency coursework determined in consultation with an Occupational Studies department academic advisor.

Option in Vocational Arts (code OCSBS05) (124 units)

This option is designed for teachers in employment-related educational programs that meet the requirements of the State Education Code, Sections 89220, 89221, 89222 and 89223. Specifically, candidates for this option must:

1. Teach or have taught at least 1,620 student contact hours in a full-time position or 1,000 student contact hours in a part-time position in an approved occupational education curriculum.
2. Hold a teaching credential authorizing service as a vocational teacher (community college instructors affected by AB 1725 are exempt from this requirement; however, they must demonstrate instructional competencies by completing prescribed teacher certification courses); and
3. Have worked at least seven years full-time or the equivalent in the field(s) named on the credential. Candidates, upon completion of these requirements and in consultation with

their adviser, submit an application with documentation verifying occupational, managerial, teaching, and professional development experience. Upon approval of the application, the California State Board of Examiners for Vocational Teachers recommends advancement to degree candidacy. Advancement to candidacy includes the preparation of an individualized program emphasizing three areas of occupational studies: 1) the relation of education and work, 2) teaching learners with special needs, and 3) research and evaluation. The required courses for this option are: OCST 300, 330, 410, 411, 412, 413; OCST 420, 421 or 422; OCST 456, 460, 461, or 462; OCST 418 or 485. This option requires foundation and occupational competency coursework as determined by the State Board of Examiners for Vocational Teachers and in consultation with an Occupational Studies department academic advisor.

Master of Arts in Occupational Studies (code OCSTMA01)

The Master of Arts degree in Occupational Studies is available to qualified students preparing for professional careers in the fields of career, occupational, and vocational education. A major thrust is the development of qualified leadership personnel to serve occupational education programs in public and private education as well as related human resource development programs in California and the nation.

The graduate program in occupational studies consists of three parts. The first part is a 15 unit set of required or core coursework in the following areas:

- History and foundations of occupational education (OCST 501)
- Leadership development (OCST 502)
- Management skills (OCST 503)
- Research and evaluation (OCST 505 and 696)

The second part is an area of specialization which is selected by the student in consultation with an advisor. Examples of program specialization areas follow:

- Administrative studies – for persons interested in administration of occupational education in public or private sectors.
- Special populations – for persons planning to work with learners who are culturally different, handicapped, and/or limited English proficient in occupational education settings.
- Corporate training and development – for persons interested in development, implementation, and evaluation of training programs in a variety of business or industrial settings.
- Career guidance – for persons interested in counseling and guidance services in education and employment settings.
- Research and evaluation – for persons planning to work in research and evaluation units in public and private agencies or to pursue advanced graduate studies.
- Curriculum and instruction – for persons interested in developing occupational education courses and programs in public and proprietary institutions.

The third program part is the decision to conduct a major research study (the thesis option) or to complete a comprehensive examination near the end of the Master's program.

Each applicant must submit a copy of transcripts for all college work to the program office, in addition to the official copies required by the Office of Admissions and Records.

Prerequisites

1. A bachelor's degree in occupational studies, with a minimum of 24 upper division units in vocational education comparable to courses offered at this University; or
2. A bachelor's degree with a minimum of 24 upper division units comparable to courses offered at this University in the discipline in which the degree was awarded.
3. Successful completion of Departmental Writing Examination.

Advancement to Candidacy

1. Satisfaction of the general University requirements for advancement to candidacy;
2. Completion of all core courses;
3. Maintenance of B average (3.0 GPA) in all work completed in graduate program;
4. Approval of Occupational Studies Graduate faculty and Director of Graduate Studies and Research, College of Health and Human Services.

Requirements

1. Completion of OCST 501, 502, 503, 505, 696;
2. Completion of 30 units of approved upper division and graduate courses and a thesis (OCST 698) and an oral presentation of the thesis approved by Department Graduate Committee; or 36 units of approved upper division and graduate courses and a written comprehensive examination.

Courses (OCST)

Upper Division

300. Orientation to Occupational Studies (3)

Prerequisite: Qualified for admission to the baccalaureate degree program under California Education Code, Sections 89220, 89221, 89222, and 89223. Orientation to baccalaureate education and the five options of the Occupational Studies Bachelor of Science degree. Career opportunities, historical overview, and department structure of each option. Philosophy and development of comprehensive employment-related education in California, its present place and functions in the total system of education. Preparation of the "Swan Bill" application and individualized program of studies. Letter grade only (A-F).

301. Community and Occupational Experiential Learning (1-9)

Prerequisite: OCST 300, upper division standing. Open only to majors in options 3-1051, 3-1052, 3-1053, or 3-1054 of the Bachelor of Science in Occupational Studies degree. Credit for supervised and documented field experience and professional development in an occupation. Students are responsible for completion and submittal to the department the work experience and professional development portions of the State Board of Examiners for Vocational Teachers application for credit. Credit/No credit grading only.

330. Literacy for the Workplace (3)

Prerequisite: ENGL 100 or equivalent. Development of an understanding of what is needed/meant by workplace literacy and what can be done to improve basic skills and literacy for work of employees and students in occupational programs. Course content includes principles of effective writing and oral communication for education and the workplace, extensive practice in various forms of writing for education and the workplace, and case studies of education and workplace reports, negotiations, and oral presentations. Letter grade only (A-F).

360. Foundation of Transition Services (3)

Prerequisites: Consent of instructor. An overview of the models, personnel roles, practices, and delivery systems of services for youth and adults with special needs in their transition from school to work and independent living. Letter grade only (A-F).

388I. Technological Literacy (3)

Prerequisites: Completion of GE Foundation requirements, upper division standing, English 100. Exploring technological concepts as they impact on humans, society and cultures. Emphasis will be placed on technology as a human adaptive system and its relationship to sociological and ideological systems. Letter grade only (A-F).

*410. Curriculum Development for Designated Subjects (3)

Prerequisites: Enrollment in Designated Subjects Credential Program, BS or MA degree programs. Techniques of curriculum planning and development in occupational and adult education. Components include needs assessment strategies, course content, performance objectives, development of specific units of instruction, learner characteristics, and learning theories applicable to curriculum development.

*411. Instruction and Evaluation for Designated Subjects Teachers (3)

Prerequisites: OCST 410 or permission of instructor. Enrollment in Designated Subjects Credential Program, BS or MA degree. Techniques and evaluation of instruction in occupational and adult education. Components include motivation, presentation, application, and evaluation techniques necessary to teach all students in occupational and adult education.

*412. Advanced Program Development and Instruction (3)

Prerequisites-Enrollment in BS, MA or Designated Subjects Credential Program. Advanced techniques of teaching designated subjects. Components include curriculum, instruction, communication, program evaluation, classroom management, technology in the classroom, and the latest knowledge and practices for teaching all students in occupational and adult education and for effecting their transition from school to work. Letter grade only (A-F).

*413. Foundations of Designated Subjects Credential Programs (3)

Prerequisites-Enrollment in BS, MA or Designated Subjects Credential Program. An examination of the foundations and principles of occupational education with a specific focus on programs subsumed under designated subjects credentials. Letter grade only (A-F).

417I. Technology, Ethics, and Society (3)

This course is designed to provide students with a framework for understanding the ways in which human societies transform themselves through technological innovation. New technologies enlarge society's options, thereby requiring consideration of ethical questions concerning the social effects of technological change. Letter grade only (A-F).

*418. The Marketplace for Occupational Education (3)

Studies of public and private agencies that serve persons who have the need to identify, prepare for and use occupational education; where such persons are placed, what they do, their successes and failures, and future trends and needs.

*420. Program Evaluation (3)

Analysis of evaluation approaches for programs and systems. The major phases and steps involved in organizing, conducting, and reporting an evaluation will be examined. Students will be exposed to a variety of program evaluation systems currently in operation and will design a functional evaluation plan for a program in their respective professional fields. Letter grade only (A-F).

*421. Research Design (3)

Study of research designs applicable in a variety of professional fields. Calculation of basic statistics, development of research proposals, use of minicomputers in occupational research. Letter grade only (A-F).

*422. Grants and Contract Writing (3)

Study of process of contract and grant proposal writing for public and private-funding agencies, including budget preparation. Letter grade only (A-F).

*435. Principles of Adult Education (3)

Instruction on the scope and function of adult education including the local, state, and federal levels. Principles and practices of adult education, philosophical perspectives, and professional issues are discussed. Letter grade only (A-F).

***456. Attitude Awareness in Education and the Workplace (3)**
Introduction to and application of the principles of communication, human relations, understanding other people, attitude recognition and development, and mental steps to motivation. Contributions of the behavioral sciences to more effective teaching will be examined and plans for their implementation will be prepared. Letter grade only (A-F).

457I. Working Around the World (3)

Prerequisites: Completion of GE Foundation requirements, one or more exploration courses, upper division standing. A study of the effects that religion, language and culture, political structure, economics, and physical environment have on the development of work and people's perceptions of work and occupations in the United States and other countries around the world. Letter grade only (A-F).

***460. Instructional Methods for Learners with Special Needs (3)**

Identification, assessment and instructional development strategies for students or employees with diverse needs. Letter grade only (A-F).

***461. Instructional Methods for Teachers of Economically and Culturally Diverse Students (3)**

Techniques for teaching disadvantaged and culturally diverse learners. Emphasis on methods, motivation, counseling and instructional organization. Letter grade only (A-F).

***462. Instructional Methods for Teachers of Linguistically Diverse Students (3)**

A convergence of bilingual and vocational education principles leading to an understanding and application of strategies suitable for teaching occupational skills to linguistically diverse students. Bilingual proficiency is not required. Letter grade only (A-F).

463. Job Development (3)

Prerequisites: Consent of instructor. An overview of techniques and strategies needed to successfully develop employment opportunities for people with special needs. Letter grade only (A-F).

***470. Seminar (3)**

Study of the major problems and issues confronting the educator and practitioner. Letter grade only (A-F).

***480. Internship (1-4)**

Internship in community, business, or school employment and training development programs which involve instruction, administration and research. Letter grade only (A-F).

483. Senior Thesis or Project (1-3)

Identification of, planning, preparation and completion of a project to solve or research problems particular to a business, educational or industrial setting. Written report required.

***485. Identifying Management Competencies (3)**

A lecture and discussion course focusing on the identification of competencies requisite for effective program management. These competencies are categorized in three domains, including, but not limited to: the interrelationships of concepts, things, and people. Letter grade only (A-F).

***490. Independent Study (1-3)**

Individual research and study under the direction of a faculty member in areas not an integral part of any regular course. Written report is required. May be repeated to a maximum of three units. Letter grade only (A-F).

492./592. Training the Trainer: A Practicum Class (4)

Equips non-traditional working students with entry-level knowledge and skill to successfully pursue other designated professional training core courses focusing on needs assessment, instructional design, facilitation, evaluation, Organization Development (OD), succession planning and international and cross-cultural training. Not open to graduate students who have previously earned OCST 492 credit in this course. Letter grade only (A-F).

494./594. Organization Development (3)

Familiarizes students with concepts, models, theories, and techniques for planning, facilitating, and evaluating Organization De-

velopment Interventions. Students will develop skills and competencies necessary to carry out a variety of industrial trainer support roles and strategies for internally and externally implementing Organization Development (OD) activities. Not open to graduate students who have previously earned 494 credit in this course. Letter grade only (A-F).

495./595. Succession Planning for Organizations (2)

A training program to ensure the continued, effective performance of an organization by making provision for the development, training, and replacement of key people in work activities over time. Preparation, grooming, and proficiency of replacements are considered. Identification of replacement needs for critical positions, clarification of present and future work activities, comparing and contrasting of individuals, and establishment of development criteria to develop high performing workers. Learning objectives can be specific to a given industry or general. Students will design an organizational chart of their respective fields. Not open to graduate students who have previously earned OCST 495 credit in this course. Letter grade only (A-F).

***497. Practicum (1-6)**

Action-oriented organized learning directed toward identifying the major problems and issues confronting education work and suggesting practical solutions for the practitioner.

***499. Special Topics (1-3)**

Topics of current interest will be selected for intensive group study. Topics will be announced in the *Schedule of Classes*. May be repeated to a maximum of six units. Letter grade only (A-F).

Graduate Level

501. Foundations of Occupational Education (3)

Examination of history and development of occupational education in the United States. Particular attention is devoted to the multiple purposes and principles of occupational education, key federal legislation and contemporary issues and developments affecting occupational education.

502. Administrative Leadership (3)

Concepts and techniques of personal and professional administrative leadership. Same course as PPA 502. Letter grade only (A-F).

503. Program Management (3)

Advanced principles and procedures of management emphasizing operations, and evaluation of employment and training related programs. Letter grade only (A-F).

504. The Environments of Occupational Education (3)

Interrelationships among occupational education, business, industry, government and society.

505. Critical Analysis of Issues and Problems in Education and the Workplace (3)

In-depth analysis of major research problems and review of historical and contemporary issues and problems. Particular attention will be given to the various research methodologies used to examine issues and problems in the field. Same course as PPA 505. Letter grade only (A-F).

508. Transition Services for Youth and Adults With Disabilities (3)

Examination of various models for and approaches to providing education and employment-related services to disabled persons in transition from school to adult life. Letter grade only (A-F).

514. Municipal Law for Administrators (3)

Examination of major laws and legal issues affecting local government today. Basic powers of cities including regulatory (police) powers, corporate (service) powers, taxation and eminent domain will be studied. Will develop problem solving abilities through legal analysis, and will explore new parameters and changing standards in litigious society looking for "deeper pockets," slower growth, and greater citizen involvement in local government. Selected areas of study will include the impact of recent U.S. Supreme Court cases on land use regulation; California Re-

development Agency law; municipal tort liability and civil rights matters; public-private financial ventures and bond financing; city council meeting and hearing procedures; the "Brown Act", and public records; public works contracts and building code enforcement; and public labor law trends and developments. Same course as PPA 514. Letter grade only (A-F).

535. Intergovernmental Relations (3)

This course will present fundamental concepts and issues of intergovernmental relations in the United States. Topics covered include history of the field, intergovernmental revenues and expenditures, state and federal legislative processes, legislative advocacy, interorganizational management, and current issues. Same course as PPA 535. Letter grade only (A-F).

542. Emergency Planning and Management (3)

Students will study 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. The public sector roles in contingency planning and response will be assessed. Same course as PPA 542. Letter grade only (A-F).

555. Government Budgeting and Finance (3)

This course focuses on the formulation phase in the budget cycle. The course presents the major concepts and skills associated with budget preparation for all levels of government. Topics include: budget processes and structures, fundamental processes of public finance, economic growth and fiscal impacts, basic principles of government accounting, budget formats, performance measurement, fiscal condition and stress, revenue sources and structures, estimation and forecasting, capital budgeting and evaluating public projects, and fiscal federalism. Same course as PPA 555. Letter grade only (A-F).

560. Planned Giving: History, Philosophy, Standards, and Financial Investment Considerations (2)

Prepares individuals for a career in planned giving by providing History, Philosophy, and Standards for Planned Giving, Financial and Investment Planning information and strategies for the knowledge and skills required to implement and maintain a successful gift planning program. Letter grade only (A-F).

561. Planned Giving for the Elderly and Tax Planning Related to the Transfer of Wealth (2)

Prepares individuals for a career in planned giving by providing information and strategies for the knowledge and skills required to implement and maintain a successful gift planning program for the elderly and an understanding of tax policy related to transfer of wealth. Letter grade only (A-F).

562. Planned Giving and Charitable Gifting: Assets, Entities, and Deferred Gifting Techniques (2)

Prepares individuals for a career in planned giving by providing information, knowledge and skills required to implement and maintain a successful gift planning program. Focus on private, public, supporting, and community foundations, general tax rules, design issues, valuation concerns, administration and operation; and calculating tax deduction including benefits of both outright and deferred methods. Letter grade only (A-F).

563. Marketing Planned Giving, and Planned Giving and Charitable Gifting Methods: Charitable Remainder Trusts (2)

Prepares individuals for a career in planned giving by providing information, knowledge and skills required to implement and maintain a successful gift planning program. Two major topics are included. One: Marketing Planned Giving, including developing the marketing plan, attracting the attention of donor prospects, and techniques for cultivation and solicitation are covered. Two: Charitable Remainder Trusts as a method of charitable gifting. Letter grade only (A-F).

564. Planned Giving: Estate Planning (2)

Prepares individuals for a career in planned giving by providing information and developing knowledge related to Estate Planning Tools and Strategies; Business Succession Planning; and Charitable Planned Goals, Application and Strategies. Letter grade only (A-F).

565. Planned Giving: International Gift Planning and Administration of Planned Giving Programs (2)

Prepares individuals for a career in planned giving by providing information and skills in the areas of: International Gift Planning related to gift and tax benefits for U.S. citizens to non-U.S. public charities, and Administration of Planning Giving Programs focusing on policy issues; developing written guidelines; determining cost-effectiveness; responsibilities and roles of administration; procedures and program administration. Letter grade only (A-F).

577. Public Sector Human Resources Management (3)

The historical development of the civil service/merit system and how this impacts public personnel systems; laws which affect the operation of a personnel system; analysis of the various components of a personnel system; impact of labor negotiations on personnel systems; importance of written policies and procedures; and role of the personnel system as a change agent. Same course as PPA 577. Letter grade only (A-F).

591. Corporate Training Development (3)

The selection and organization of corporate training curricula and development of courses of study to be used in public and private Occupational Education programs.

592./492. Training the Trainer: A Practicum Class (4)

Equips non-traditional working students with entry-level knowledge and skill to successfully pursue other designated professional training core courses focusing on needs assessment, instructional design, facilitation, evaluation, Organization Development (OD), succession planning and international and cross-cultural training. Not open to graduate students who have previously earned OCST 492 credit in this course. Letter grade only (A-F)

593. Corporate Training Methods (3)

Teaching techniques, philosophy, organization and planning in corporate training programs, public and private education.

594./494. Organization Development (3)

Familiarizes students with concepts, models, theories, and techniques for planning, facilitating, and evaluating Organization Development Interventions. Students will develop skills and competencies necessary to carry out a variety of industrial trainer support roles and strategies for internally and externally implementing Organization Development (OD) activities. Not open to graduate students who have previously earned 494 credit in this course. Letter grade only (A-F).

595./495. Succession Planning for Organizations (2)

A training program to ensure the continued, effective performance of an organization by making provision for the development, training, and replacement of key people in work activities over time. Preparation, grooming. And proficiency of replacements are considered. Identification of replacement needs for critical positions, clarification of present and future work activities, comparing and contrasting of individuals, and establishment of development criteria to develop high performing workers. Learning objectives can be specific to a given industry or general. Students will design an organizational chart of their respective fields. Not open to graduate students who have previously earned OCST 495 credit in this course. Letter grade only (A-F).

650. Graduate Seminar (3)

Study of selected topics in occupational education, including important legislation, industrial innovations, technical change, and contemporary problems. Topics will be announced in Schedule of Classes. May be repeated for a maximum of six units. Same course as PPA 651. Letter grade only (A-F).

696. Research Methods (3)

Prerequisites: OCST 421 or equivalent and OCST 505. Selecting, defining and presenting methods of research demonstration of research theory to problem solution.

697. Directed Studies (1-3)

Prerequisite: 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)

Prerequisite: Advancement to candidacy. Planning preparation and completion of a thesis. Letter grade only (A-F).



ODYSSEY THEME YEAR PROJECT

Odyssey 2003-2004 – The Voyage of Discovery

Odyssey Theme Year Project

During the 1996-97 academic year, CSULB inaugurated the first in a series of theme years. Each theme year involves the campus and the community in a year-long series of major speakers, conferences, performances, films, events, field trips, and classes (across campus and in the community) focused on a single intellectual issue of importance to our time.

The name "Odyssey" was chosen as the title for the theme year project because of its identification with Homer's epic tale of Odysseus. This mythical Greek hero's years of wandering have come to symbolize a voyage of discovery and adventure. Each year CSULB students have the unique opportunity to engage in their own "intellectual" voyage of discovery and adventure by taking courses which integrate in- and out-of-classroom experiences. Some students might choose to apply their courses to an interdisciplinary certificate program.

Odyssey 1996-97: The City was the first thematic year and was devoted to exploration of The City in Southern California, America and the globe at the turn of the millennium. *Odyssey 1997-98* focused on *The Earth: Origins, Evolution, and The Search for Meaning*. *Odyssey 1998-99* explored *The Self and Its Sources: Individuals and Community*. During 1999-2000, *The Community: Spatial, Cultural and Virtual* was examined. For 2000-2001, *The Future: Values and Technology in a Global Community* was studied and for 2001-2002, *The Citizen: Right, Roles, Responsibilities* was featured.

During the first year, guest speakers included author Walter Mosley (and a screening of *Devil in a Blue Dress*), Kevin Starr (California State Librarian), and the monumental artists Christo and Jeanne Claude as well as speakers from South Africa, Australia, Mexico, and Japan. In addition, there was a film series, a student initiated and implemented art and creative writing exhibition, three major conferences, and numerous field trips. During the second year, there were guest speakers on topics as diverse as the physics of Star Trek, plate tectonics, fossils, human mating, primate diets, visual intelligence, and the future of the universe. For 1998-99, there were fifty-three separate Odyssey guest speakers and events including Edward James Olmos, The Festival of the 5 Senses, photo and art exhibits, films, performances, and panel discussions. During 1999, with the theme of Community, we hosted guest speakers like Dr. Hunter "Patch" Adams, science fiction writer Octavia Butler, photographer Antony Gleaton, Father Greg Boyle, and Jean Houston. For 2000-2001, a look at "The Future: Values and Technology in a Global Community" brought Ralph Nader, Erin Brockovich, and Julia "Butterfly" Hill to campus, in addition to stand-up comic Marga Gomez, radio personality Dr. Demento, computer artist/architect April Greiman, and scientists from Cal Tech and JPL. The Odyssey continued in 2001-2002 with *The Citizen: Rights, Roles, Responsibilities*. Guest speakers included Mike Farrell (of *M*A*S*H* and *Providence* fame), environmentalist Jan Lundberg, TV critic Howard Rosenberg, education reformers Erin

Gruwell and John and Stephen Goodlad, journalist Naomi Klein, and LA Supervisor Don Knabe as well as performances by Sweet Honey in the Rock and the Children of Uganda. For 2002-2003 the College of Liberal Arts hosted *The World We Are Making* with guest speakers like former U.S. Senator George Mitchell, authors Alicia Partnoy and Gioconda Belli, a Cambodian film series, a seminar series on "Evil in The World We Are Making," a graffiti artist, and representatives from UNICEF and Doctors Without Borders.

In 2003-2004 the theme will be The Voyage of Discovery. The project's thematic focus on the scientific experience as it relates to social issues (sponsored by the College of Natural Sciences and Mathematics) will seek to find connections from numerous viewpoints and disciplinary perspectives both within and outside the natural sciences (e.g., the media, public policy, economics, sociology, and philosophy) and relate them to the innate need that humans exhibit to know, understand, explain, quantify, and control (biological and physical processes, their environment, etc.) as well as the consequences of these efforts. During the year, we will examine such issues as the impact scientific advances have on our lives and the earth, the challenges of communicating science outside the scientific community, sustainability and environmental issues, women in science, the Human Genome Project, genetic engineering, and the responsibilities of society as they relate to science.

These topics will be explored through:

- Two team-taught interdisciplinary General Education courses (University 3001 and 3011) featuring guest experts;
- Invited guest speakers like John F. Nash, Jr. (*A Beautiful Mind*), Dr. Hunter "Patch" Adams, and others;
- Field trips, and service learning projects [Funding for field trips would allow faculty to engage students in "real world" experiences and community service which, it is hoped, would have a lifelong influence on their views of the impact humans have on our planet as well as foster a lifelong concern for conservation. According to Edmund O. Wilson (Harvard University), there are seventeen environmental hot spots in the world where plant and animal life faces extinction. There is only one in the U.S. — that spot is the Bolsa Chica Wetlands in Orange County. The Committee would like to take groups of students to the Wetlands for both educational and volunteer conservation purposes. In addition, the Committee is investigating other opportunities for groups of students to visit locations in the area which would enhance their environmental awareness and encourage life-long volunteerism (e.g., San Diego Wild Animal Park, Big Cat Reserves, Catalina Island)];
- Theatre/dance performances (e.g., "The Mathematics of Change", Bill Nye, the Science Guy);
- Exhibits; and
- Collaborative programs with our local K-12 partners.

Students in each of the Odyssey courses will be encouraged/required to attend at least two theme-related activities each semester. In addition, faculty are creating new special topics courses and restructuring existing courses to provide opportunities for students to receive course credit for "creating" part of the Odyssey experience through cooperative learning activities.

Fall 2003 and Spring 2004—The Voyage of Discovery (Theme Course)

University 300I and University 301I

Possible topics:

- Impact scientific advances have on our lives and the earth
- Communicating science
- Connecting and evaluating science
- Demystifying science
- Systems theory
- Common language/taxonomy
- Post creative justification
- Closing the knowing/doing gap
- Scientific literacy
- Science within reach (accessibility)
- Sustainability and environmental issues—conservation (how our daily choices affect us, our environment, etc.) Impacts on various ecosystems and the role of humans (for creating the problems and finding solutions to fix the problems)
- Food and the Future (revolutions in agriculture; risks to environment/ecology)
- Nanotechnology;
- Math and Science Education—new advances; range of knowledge levels; processes of science development
- Human Genome Project
- Genetic engineering
- Responsibilities of society as they relate to science
- Process of problem-solving
- Thought as Process and Product
- Creative Processes and Effects of the Process
- Dimensions and Scale
- Art and Physics
- Aging; genetics, neurobiology

Other Courses for Fall 2003 and Spring 2004 with Theme-Year Content

ANTH 110	Introduction to Physical Anthropology
ANTH 353	Health and Healing
BIOL 100	Biology of Human Environment
BIOL 303I	Coastal Systems and Human Impact
BIOL 309I	Human Mind and Body
CH E 445/545	Pollution Prevention
CHEM 100	Chemistry and Today's World
ECON 306 I	Environmental Issues of the World Economy
ECON 462	Environmental Economics
ENGR 302I	Energy and Environment: A Global Perspective
GEOG 319	International Development

GEOG 355	International Environmental Issues
GEOG 455	People As Agents of Environmental Change
GEOL 102	General Geology
GEOL 160	Intro to Oceanography
GEOL 163	Atmosphere and Weather
GEOL 190	Environmental Geology
GEOL 191	Air and Water Pollution
GEOL 300I	Earth System and Global Change
GEOL 303I	Coastal Systems and Human Impacts
GERN 474	Aging and Diversity in Southern California
HCA 422I	Global Issues in Health Services Administration
HCA 451	Economics of Health
HCA 508	Ethics in Health Care Delivery
H SC 210	Contemporary Health Problems
H SC 401	Community Health Education
H SC 420I	International Health
H SC 425I	Human Sexuality
H SC 427	Drugs and Health
HDEV 300I	Death and Dying
I/ST 319I	International Development
I/ST 355	International Environmental Issues
JOUR 110	Introduction to Mass Communication
JOUR 312I	Global News Media
JOUR 431	Ethical Problems of the News Media
MICR 101	Introduction to Human Disease
MICR 300i	Human Immunology
MICR 303	Public Health and Pollution
NSCI 309I	Women in Science
NSCI 375I	Science and Society
NSCI 377I	Blood Research
PHIL 160	Introductory Ethics
PHIL 381	Philosophy of Science
PHIL 403I	Medical Ethics
PHSC 112	Introduction to Physical Science
PSY 141	Psychobiology
PSY 346I	Human Sociobiology
R/ST 383I	Christianity and Global Ethics
R/ST 391I	Religion and Science
SOC 350	International Population Problems
SOC 372I	Living in Space
SOC 374I	Solar System Habitation
SOC 376I	Interstellar Migration
SOC 410I	Social Ecology
SOC 427	Social Order and Social Change
SOC 462	Medical Sociology
SOC 466	AIDS and Society
UNIV 300I/301I	The Voyage of Discovery
W/ST 101	Women and Their Bodies
W/ST 309I	Women in Science

PEACE STUDIES

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Larry George, International Studies

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Mimi Hotchkiss, English

Ray LaCoste, Comp. Lit. & Classics

Unna Lasiter, Geography

Shirley Mangini, RGRL

Sandra McMillan, Film & Electronic Arts

Chuck Noble, Political Science

Susan Nummedal, Psychology

Jyotsna Pattnaik, Teacher Education

Susan Rice, Social Work

Pamela Roberts, Human Development

Steve Ross, Linguistics

Eugene Ruyle, Anthropology

Carol Shaw-Sutten, Art

Larry Smith, American Indian Studies

Barry Steiner, Political Science

Matt Taylor, Communication Studies

Teri Yamada, Comp. Lit. & Classics

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Certificate Program in Peace Studies (code COLACT02)

The Certificate Program in Peace Studies is designed for students who are concerned about issues of peace, conflict, and justice in contemporary society; and who wish to develop skills to promote peace and constructive conflict management within their individual lives, families, communities, and social systems. Students will have the opportunity to explore past and present conflicts that inhibit the achievement of peace, and will have the opportunity to enlarge their understanding of global and human diversity problems and their solutions. Student also will be challenged to discover the processes that create peace among people, and to recognize that while the expression of conflict is natural and normal for

humans, it need not lead to destruction, violence, or war. Effective conflict management can generate productive, peaceful ends. Students will be empowered to believe they can make a difference. Overall, students will enhance their understanding of human beings, the causes of their conflicts with each other in a host of contexts, and past, present, and future methods of managing those conflicts.

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, and should be especially useful for students preparing for careers in humanities, education, business, government, law, and social service.

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 317I, POSC 371
2. Core Skills Course (3 units): Take one of the following:
COMM 411, SW 491, I/ST 491
3. Elective Courses (15 units): Take at least one course from each of the following groups, and then one additional course from any of the groups.
Group A: Perspectives on Peace, Conflict, Violence, and War (3 units minimum):
ANTH 305I; BIOL 351; COMM 490; CRIM 101; HIST 304, 377, 495; I/ST 318, 355; POSC 220, 371, 455; PHIL 351; PSY 350I
Group B: Laws, Rights, Responsibilities in Peace and Conflict (3 units minimum)
COMM 441I; PHIL 352, 376; POSC 412
Group C: Culture, Race, Gender Influences on Peace and Conflict (3 units minimum)
ANTH 315, 311I; B/ST 325; COMM 330, 412; HIST 309I; LING 470; SOC 346; SPAN 493 or SPAN 593 or HIST 490F; W/ST 401, 430
Group D: Empowerment and Peace-Building (3 units minimum)
COMM 410, 421; ECON 309I or FCS 309I or FIN 309I; EDP 434B; FEA 486I; HDEV 364; H SC 429; NRS 481I; 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.

PHILOSOPHY

College of Liberal Arts

Department Chair

G.A. Spangler

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William M. Johnson

Assistant Professors

Sara Goering

Jeffrey Moriarty

Lawrence Nolan

Ravi K. Sharma

Charles Wallis

Undergraduate Advisor

Julie Van Camp

Graduate Advisor

Lawrence Nolan

Pre-Law Advisor

Julie Van Camp

Administrative Support Coordinator

Donna Reese

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Bachelor of Arts in Philosophy (code PHILBA01) (120 units)

The undergraduate Philosophy program challenges students to think rigorously about some of the most profound questions people consider: "What is most important in a human life?"; "What can I know?"; "Does God exist?"; "Do human beings have free will?"; "What are the guidelines for morality?"; "What is 'the soul', or 'the mind'?" These and other questions are raised in courses in special areas of philosophical concern such as logic, theory of knowledge, ethics, metaphysics, philosophy of religion, philosophy of science, and aesthetics. They are also raised in their historical context in courses which focus on great philosophers such as Plato, Aristotle, Kant, the great "Rationalists" and the great "Empiricists." In addition, the Philosophy curriculum encourages students to examine our contemporary situation (with such courses as Existentialism, Phenomenology, Philosophy of Language, and Political Philosophy), and to extend their thinking with the philosophies of other cultures (such as those of China, Japan, and India).

In addition, the philosophy curriculum examines our contemporary situation and extends our thinking with the philosophies of other cultures.

The Philosophy Pre-law Program provides undergraduates with a course of study which emphasizes the development of skills in reasoning and argumentation, in linguistic and ethical analysis, and in clear and precise communication. The Department's Center for Applied Ethics brings guest speakers to the campus and sponsors conferences, research, and new courses in medical ethics and business ethics. The Department's Center for the Advancement of Philosophy in Schools (CAPS) places advanced philosophy students into area schools to promote philosophy for children. The Department is developing courses and other programs in cognitive science, bringing together the insights of epistemology, logic, psychology, and computer science. The MA program prepares students for teaching in the community colleges and for doctoral programs in philosophy.

Requirements

A minimum of 36 units in philosophy divided as follows:

Lower Division: PHIL 203, 204, and either 270 or 296.

Up to 12 lower-division units may be counted toward the major, including either PHIL 100/100W or 160/160W.

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, 307, 413, 414, 416, 417, 418, 419, 421, 422, 423, 424, 425, 490, 491, 492

Logic, Metaphysics, Epistemology: PHIL 303, 342, 381, 382, 470, 482, 483, 484, 493

Values and Evaluation: PHIL 302I, 351, 352, 354, 360, 361, 362I, 363, 401, 403I, 405I (formerly 305), 451I, 452I, 455, 461I, 489, 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 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, 352, 363, 451I, 452I, 489.

Minor in Philosophy (code PHILUM01)

The minor in philosophy provides a structured yet flexible program for the student majoring in a different discipline, but who is interested in philosophy either as an adjunct to the degree major or as a foundation for the student's future intellectual life.

The Minor in Philosophy is available to any non-Philosophy major.

Requirements

A minimum of 18 units in philosophy, divided as follows:
Lower Division: PHIL 203, 204, and either 270 or 296.

Upper Division: A minimum of 9 units in philosophy, including at least one course (3 units) from each of the following groups:

History of Philosophy: PHIL 306, 307, 413, 414, 416, 417, 418, 419, 421, 422, 423, 424, 425, 490, 491, 492

Logic, Metaphysics, Epistemology: PHIL 303, 342, 381, 382, 470, 482, 483, 484, 493

Values and Evaluation: PHIL 302I, 305, 351, 352, 354, 360, 361, 362I, 363, 401, 403I, 405I, 451I, 452I, 455, 461I, 489, 496

Master of Arts in Philosophy (code PHILMA01)

Entrance Requirements

1. A bachelor's degree with a major in philosophy; or
2. 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 B.A. in philosophy at this University. (Deficiencies will be determined by the Graduate Advisor after consultation with the student and after study of transcript records.) Students who do not meet these conditions may enter as provisional graduate students. Prospective students must see the Graduate Advisor for assessment and to plan a program. Departmental reader positions are sometimes available for qualified persons, as are Graduate Assistantships. A reader works closely with a member of the faculty, but is not responsible for instruction. Application for these positions can be made to the Chair of the Philosophy Department.

Advancement to Candidacy

1. The graduate student will be expected to demonstrate proficiency in the areas of epistemology, metaphysics, ethics and symbolic logic. (A grade of "B" in a semester course in each of these areas is a standard way of demonstrating proficiency.)

2. The graduate student who expects to become a candidate for the Master of Arts degree in Philosophy will be required to pass a Basic Qualifying Examination (BQE). Normally, the student must complete this examination early in graduate study.
3. Students should attempt to be Advanced upon completion of 6 units (preferably no more than 9 units) in the Program. The Writing Proficiency Exam (WPE) is required for Advancement.
4. Although there is no formal language requirement, the Philosophy Department may require the student to demonstrate a foreign language proficiency whenever at the department's discretion a language proficiency is appropriate to the area of study.
5. The student's graduate program must be approved by the Graduate Advisor, the Department Chair, and the College Associate Dean of Graduate Studies.

Requirements

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 conference with the student's faculty 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 18 units of graduate courses, with a minimum of 6 units from the 600 series. 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.

Courses (PHIL)

Lower Division

100. Introduction to Philosophy (3)

Prerequisites/Corequisites, any course from GE Foundation categories A.1 (Written English), category A.2. (Oral Communication) or Category A.3. (Critical Thinking), which may be taken concurrently. Critical analysis of the history, methods, and major problems of philosophy. Same course as PHIL 100W. (CAN PHIL 2)

100W. Introduction to Philosophy (4)

Prerequisites/Corequisites: any course from GE Foundation categories A.1 (Written English), category A.2. (Oral Communication) or Category A.3. (Critical Thinking), which may be taken concurrently. Critical analysis of the history, methods, and major problems of philosophy (Lecture 3 hours). Required Workshop (one hour): Planned exercises, activities, and discussion designed to develop oral and written critical thinking and analytic skills to complement lectures. Same course as PHIL 100. Not open to students with credit in PHIL 100. (CAN PHIL 2)

160. Introductory Ethics (3)

Prerequisites/Corequisites: any course from GE Foundation categories A.1 (Written English), category A.2. (Oral Communication) or Category A.3. (Critical Thinking), which may be taken concurrently. Concepts of right and wrong, good and bad, and the application of moral principles to problems of everyday life. Not open to students with credit in PHIL 160W. (CAN PHIL 4)

160W. Introduction to Ethics (4)

Prerequisite: Any course from GE Foundation Category A.1 (Written English), Category A.2 (Oral Communication), or Category

A.3 (Critical Thinking), which may be taken concurrently. Concepts of right and wrong, good and bad, and the application of moral principles to problems of everyday life (Lecture 3 Hours). Planned exercises, activities, and discussion to develop oral and written critical thinking and analytical skills to complement lectures (Workshop 1 hour). (CAN PHIL 4)

170. Critical Reasoning (3)

Prerequisite: Completion of GE Foundation requirements Category A.1 (Written English), which may be taken concurrently. Elements of clear, straight, orderly and valid thought, including deductive and inductive reasoning and the accurate use of language. This course explores practical applications of logic. (CAN PHIL 6)

203. History of Early Western Philosophy (3)

Prerequisite: Completion of GE Foundation requirements. From Thales to the Renaissance including the systems of Socrates, Plato and Aristotle, and their influence on European philosophy through the medieval period.

204. History of Modern Western Philosophy (3)

Prerequisite: Completion of 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.

270. Symbolic Logic I (3)

Introduction to the formal techniques of evaluating arguments.

296. Methods of Philosophical Study (3)

Prerequisite: Three units in Philosophy. This course prepares the student for philosophical study through education in its research methods and technical vocabulary, by instructing students how to write a successful philosophical essay, and explaining the scope and nature of some of the central issues of 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.

The philosophy upper division courses fall into several curricular sub-groups, as follows:

Early Philosophy

- 306. Philosophies of China and Japan
- 307. Philosophies of India
- 421./521. Plato
- 422./522. Aristotle
- 490./590. Special Topics – Early Philosophy

Modern Tradition

- 413./513. Continental Rationalism
- 414./514. British Empiricism
- 423./523. Kant
- 424./524. Hegel
- 425./525. Wittgenstein
- 491./591. Special Topics – The Modern Tradition

Twentieth Century Philosophy

- 416./516. Pragmatism
- 417./517. Phenomenology
- 418./518. Existentialism
- 419./519. Analytic Philosophy
- 492./592. Special Topics – Twentieth Century Philosophy

Metaphysical Studies

- 330. Philosophy of Religion
- 342. Metaphysics
- 483./583. Philosophical Psychology

Epistemological Studies

- 381. Philosophy of Science
- 382. Theory of Knowledge
- 482. Cognitive Science

Studies in Logic and Semantics

- 470. Symbolic Logic II
- 484. Philosophy of Language

Studies in Value and Evaluation

- 351. Political Philosophy
- 352. Philosophy of Law
- 361. Philosophy of Art and Beauty
- 362I. Ethics and Computer Technology
- 363. Ethical Theory
- 401. Philosophy in Education
- 403I. Medical Ethics
- 405I. Philosophy in Literature
- 451I. Liberty and Justice: Race, Ethnicity, and Gender in American Law
- 452I. Law, Philosophy, and the Humanities
- 455. Philosophical Perspectives on Sex and Love
- 461I. Diversity in Criticism and Analysis of the Arts
- 489. Philosophy Internship/Pre-Law
- 496./596. Special Topics – Value and Evaluation

Upper Division

306. Philosophies of China and Japan (3)

Prerequisite: Completion of GE Foundation requirements. Historical and critical study of the philosophical thought of China and Japan.

307. Philosophies of India (3)

Prerequisite: Completion of GE Foundation requirements. Historical and critical survey with emphasis on basic ideas and traditions.

330. Philosophy of Religion (3)

Prerequisite: Completion of GE Foundation requirements. Nature and function of religion and of fundamental religious concepts and ideals.

342. Metaphysics (3)

Prerequisite: 3 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)

Prerequisite: Completion of GE Foundation requirements. 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: Completion of GE Foundation requirements. 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 and Beauty (3)

Prerequisite: Completion of GE Foundation requirements. Discussion of central problems in aesthetics, such as the 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.

362I. Ethics and Computer Technology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Speculative and critical examination of moral dilemmas, legal issues, and social values pertaining to new developments in computer technology, with particular emphasis on how computer technology informs, and is informed by, human relationships and human needs.

363. Ethical Theory (3)

Prerequisite: 3 units of philosophy. In-depth discussion of such issues as obligation, responsibility, social justice, and personal ideals.

381. Philosophy of Science (3)

Prerequisite: Completion of GE Foundation requirements. 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.

401. Philosophy in Education (3)

Prerequisites: Completion of the GE Foundation; at least six units of philosophy. Exploration of the intersection between philosophy and education. Students read and discuss selections from classical philosophical works on education, analyze historical and contemporary reasons for common exclusion of philosophy from K-12 curriculum, explore ways of integrating philosophy into curriculum for young students. Each student will be placed in a local school district classroom to lead weekly philosophy sessions with a teaching partner. Service-learning.

403I. Medical Ethics (3)

Prerequisites: Completion of the 13-unit Foundation; at least one Explorations course. Covers several of main areas of bioethics: reproductive rights and liberties, definitions of health, disease, and disability, end of life care, fair distribution of health care, goals of health care. Philosophical texts, journal articles from medical humanities, ethics, medicine, and case studies used to raise and examine issues.

405I. Philosophy in Literature (3)

Prerequisites: Completion of the 13-unit Foundation; at least one Exploration course in philosophy, literature, theater arts; upper-division standing required. 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 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.

417./517. Phenomenology (3)

Prerequisites: Six units of philosophy or consent of instructor. Study of one of the major movements of contemporary philosophy. Themes treated may include knowledge, meaning, emotionality, embodiment, language, sociality, freedom and religion. Philosophers treated may include Husserl, Scheler, Heidegger, Merleau-Ponty and Ricoeur.

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. Critical analysis of major movements in the development of Anglo-American philosophy in the twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Intensive study of the contributions of such philoso-

phers as Moore, Russell, Wittgenstein, Ayer, Ryle, Austin, Strawson, and Quine.

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*.

451I. Liberty and Justice: Race, Ethnicity, and Gender in American Law (3)

Prerequisites: Completion of 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.

452I. Law, Philosophy, and the Humanities (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing (junior standing required; senior standing recommended), six units of philosophy or consent of instructor. A comparison of how the law is considered by various disciplines; primary focus is on philosophical methods and legal methods, with some consideration of other humanities disciplines, such as literature.

455./555. Philosophical Perspectives on Sex and Love (3)

Prerequisite: 6 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 W/ST 455.

461I. Diversity in Criticism and Analysis of the Arts (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing (junior standing required; senior standing recommended). Philosophical and critical consideration of the arts by different races, ethnic groups, and genders in the United States.

470./570. Symbolic Logic II (3)

Prerequisites: PHIL 270, or MATH 330, or consent of instructor. A philosophical consideration of deductive systems.

482. Introduction to Cognitive Science (3)

Prerequisites: Completion of all Foundation courses; 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.

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 with law-related focus. A CSU Summer Internship in Washington, D.C. also meets this requirement. Work done under the joint supervision of the program sponsor and CSULB Philosophy Pre-Law Advisor. A mid-term and final report and internship conferences are required.

490./590. Special 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. Specific issues, period or figures will be announced in the *Schedule of Classes*. Sample titles: Pre-Socratic Philosophy, Post-Aristotelian Philosophy, Medieval Philosophy. May be repeated for credit to a maximum of nine units with different topics.

491./591. Special 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. Specific titles will be announced in the *Schedule of Classes*. Sample titles: Hobbes, German Idealism, Nietzsche. May be repeated for credit to a maximum of nine units with different topics.

492./592. Special 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. Specific title will be announced in the *Schedule of Classes*. Sample titles: Wittgenstein, Heidegger, Russell, Process Philosophy. May be repeated for credit to a maximum of nine units with different topics.

496./596. Special 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. Specific topics will be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of nine units with different topics.

497H. Undergraduate Honors Seminar (3)

Prerequisites: 1) Admission to the undergraduate Honors Program in Philosophy. 2) Undergraduate Honors Thesis (PHIL 498) or (with the instructor's permission) 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. A Directed Studies course on a topic chosen by the student in consultation with instructor. Complements, and usually taken before, PHIL 497, undergraduate Honors Seminar. Repeatable for a maximum of 6 units. Letter grade only (A-F).

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 six 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).

517./417. Phenomenology (3)

Prerequisites: Six units of philosophy or consent of instructor. Study of one of the major movements of contemporary philosophy. Themes treated may include knowledge, meaning, emotionality, embodiment, language, sociality, freedom and religion. Philosophers treated may include Husserl, Scheler, Heidegger, Merleau-Ponty and Ricoeur. 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. Critical analysis of major movements in the development of Anglo-American philosophy in the twentieth century, such as logical atomism, logical positivism and ordinary language philosophy. Intensive study of the 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 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.

552. Advanced Studies in Law, Philosophy, and the Humanities (3)

Prerequisites: Graduate standing. Comparison of how the law is considered by various disciplines; primary focus is on philosophical methods and legal methods, with some consideration of other humanities disciplines, such as literature.

555./455. Philosophical Perspectives on Sex and Love (3)

Prerequisites: 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.

570./470. Symbolic Logic II (3)

Prerequisites: PHIL 270, or MATH 330, or consent of instructor. A philosophical consideration of deductive systems.

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. Special 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. Specific issues, period or figures will be announced in the *Schedule of Classes*. Sample titles: Pre-Socratic Philosophy, Post-Aristotelian Philosophy, Medieval Philosophy. May be repeated for credit to a maximum of nine units with different topics. Letter grade only (A-F).

591./491. Special 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. Specific titles will be announced in the *Schedule of Classes*. Sample titles: Hobbes, German Idealism, Nietzsche. May be repeated for credit to a maximum of nine units with different topics. Letter grade only (A-F).

592./492. Special 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. Specific title will be announced in the *Schedule of Classes*. Sample titles: Wittgenstein, Heidegger, Russell, Process Philosophy. May be repeated for credit to a maximum of nine units with different topics. Letter grade only (A-F).

596./496. Special 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. Specific topics will be announced in the *Schedule of Classes*. May be repeated for credit to a maximum of nine units with different topics. Letter grade only (A-F).

597. Teaching Philosophy (3)

Prerequisites: Six units of philosophy or consent of instructor. A practical and theoretical introduction to the aims, methods, responsibilities, and ethics of teaching in the college classroom, with an emphasis on the specific issues involved in teaching philosophy. Letter grade only (A-F).

599. Graduate Tutorial (1-3)

Prerequisite: Consent of the instructor. Supervised independent study. Seniors with a GPA of 3.0 or better may enroll with consent of Department. May be repeated for credit to a maximum of six units. Letter grade only (A-F).

620. Seminar in History of Philosophy (3)

Prerequisite: Consent of instructor. Close study of selected subjects in the history of philosophy. The original language may be required. May be repeated with different subjects for a maximum of 9 units. Letter grade only (A-F).

630. Seminar in Philosophy of Religion (3)

Prerequisite: PHIL 330 or consent of instructor. Critical examination of selected issues, figures and movements. May be repeated for a maximum of six units, subject to suitable variation. Letter grade only (A-F).

663. Seminar in 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. Course may be repeated for a maximum of 6 units with different topics. Letter grade only (A-F).

680. Seminar in Epistemology (3)

Prerequisite: PHIL 382 or consent of instructor. May be repeated for a maximum of six units, subject to suitable variation in course content. Letter grade only (A-F).

681. Seminar in the Philosophy of Science (3)

Current issues in the philosophy of science. May be repeated for a maximum of six units, subject to suitable variation in course content. Letter grade only (A-F).

690. Seminar in Selected Topics of Current Interest (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 philos-

ophers. If demand for more than one subject exists, multiple sections may be given in any one semester. May be repeated for a maximum of six units, subject to suitable variation of course content. Letter grade only (A-F).

697. Directed Research (1-3)

Prerequisite: Consent of the student's advisor. Letter grade only (A-F).

698. Thesis (1-6)

Prerequisite: Consent of graduate advisor. Preparation and completion of a thesis in philosophy and oral defense thereof.

PHYSICS AND ASTRONOMY

College of Natural Sciences and Mathematics

Department Chair

Alfred F. Leung

Department Office

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Web Site

www.cnsm.csulb.edu/depts/physics/

Faculty

Professors

M. Zahur Anwar

R. Dean Ayers

Lowell J. Eliason (Emeritus, 2002)

Mark Gross

Paul Hintzen

Chi-Yu Hu

Patrick F. Kenealy

Alfred F. Leung

Jing Liu

S. Rajpoot

Kwang Y. Shen (Emeritus, 1999)

Associate Professors

Z. Hlousek

Galen T. Pickett

Assistant Professor

Chuhe Kwon

Administrative Support Coordinator

Irene Howard

Students desiring information should contact the Department Office for referral to one of the faculty advisors.

Undergraduate Advisor

Galen T. Pickett

Graduate Advisor

Alfred F. Leung

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department of Physics and Astronomy offers two bachelor's degrees and a master's degree; descriptions of these programs and the requirements for their completion are given below.

Degree Programs

Each bachelor's degree offered by the Department is based on a strong, basic program. The Bachelor of Science (B.S.) degree is designed for students interested in immediate employment in industry as well as those who wish to continue on to a Master's or Ph.D. degree in physics or a related field. The Bachelor of Arts (B.A.) 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 education with an emphasis on physics. The curriculum for these baccalaureate degrees provides a broadly-based exposure to theoretical and experimental physics. It also permits students to discuss fundamental concepts and their applications to grasp the discoveries at science's expanding frontiers, and to develop an appreciation for the amazing beauty of the physical universe.

The Department also offers graduate study leading to the Master of Science (M.S.) degree. The M.S. degree is available in both a general option and an option in applied physics. A student may choose the general option either with a thesis (Plan I) or, if the department graduate committee gives permission, with a comprehensive examination (Plan II); the option in applied physics requires a thesis. Active areas of research are: observational astronomy, applied optics, laser spectroscopy, materials research, particle physics, atomic physics, quantum gravity, muon catalyzed fusion, intermediate energy physics, acoustics, and condensed matter physics. Teaching associateships and graduate assistantships are available to students working on the master's degree. Application should be made to the graduate advisor of the Department of Physics and Astronomy.

Concurrent and/or Summer Enrollment in 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 enroll in 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.

Facilitated Enrollment into Classes

All entering students who declare a major in a degree program offered by this Department should participate in the College of Natural Sciences and Mathematics' 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 advise-

ment, to provide information on the many career opportunities available, and to aid students in enrolling in classes. Contact the Student Access to Sciences and Mathematics Center (FO5-109) or Department Office for additional information.

Bachelor of Science in Physics (code PHYSBS01) (124 units)

Requirements

Lower Division: PHYS 151, 152, 254, 255; MATH 122, 123, 224; CHEM 111A,B; BIOL 200 or 211A.

Upper Division: ENGL 317; MATH 370A or 364A, MATH 370B or 461; 34 units of upper division physics including PHYS 310, 320, 340A, 340B, 350, 360, 380, 450, and one laboratory course chosen from PHYS 330, 403, 445, 476 and 480. The remaining (6 to 8) units are to be chosen from any upper division physics courses.

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 an upper division major who is a full-time student.

Junior Year:

Fall: PHYS 310, 320, 360; MATH 370A or 364A (or MATH 370B or 461; it is recommended that MATH 370A or 364A be taken before PHYS 310 if possible).

Spring: PHYS 340A, 350, 380; MATH 370B or 461 (if not taken previously).

Senior Year:

Fall: PHYS 340B, 450.

Spring: Three upper division physics electives.

Bachelor of Arts in Physics (code PHYSBA01) (120 units)

This degree is designed for the student who expects to teach at the secondary level, or who seeks a high quality liberal education focusing on science. A minimum of 120 units is required for this degree.

Requirements

Lower-Division: PHYS 151, 152, 254, 255; MATH 122, 123, 224; CHEM 111A,B; BIOL 200 or 211A.

Upper-Division: A minimum of 24 units of courses selected in consultation with the Physics Department Undergraduate Advisor, at least 18 units of which must be in physics; ENGL 317 or other suitable upper-division writing course from the Department of English, to be determined in consultation with the Physics Department Undergraduate Advisor (may be waived for students who achieved a standard score of 24 on the ACT English sub-test or who received an "A" or "B" grade in ENGL 100).

Requirements Related to a Teaching Credential with a Physics Specialization

The *Science Teaching Credential with a Specialization in Physics* is formally administered by the Department of Science Education and the Single Subject Teacher Education Program in the College of Education. The Science Teaching Credential with any specialization has a set of requirements that include courses in MATH, BIOL, CHEM, GEOL, and SCED, as well as professional education courses. The courses

listed below are those required for *the Physics Specialization*; note that meeting these credential requirements also meets the requirements for the Bachelor of Arts in Physics. A more elaborated list of these requirements can be obtained from the Department of Physics and Astronomy, the Department of Science Education, or the Single Subject Program; *the student is strongly encouraged to consult with an advisor in one of these areas for more information about additional requirements for the credential.*

Lower-Division: PHYS 151, 152, 254, 255; MATH 122, 123, 224; ASTR 100; BIOL 211A,B; CHEM 111A,B; GEOL 102, 104, 160.

Upper-Division: MATH 364A or 370A; PHYS 310, either 320 or 422, either 330 or both 475 and 476, 340A, either 380 or 3 units of 496; SCED 403, 404; EDSS 300C, 450C; EDSE 435, 436, 457.

Minor in Physics (code PHYSUM01)

Requirements

The Minor in Physics is available to any non-Physics major. A minimum of 20 units which must include the following.

Lower Division: PHYS 151, 152, 254, 255.

Upper Division: A minimum of nine units in physics (PHYS 360 will not count toward these nine units).

Master of Science in Physics (code PHYSMS01)

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 with or without credit toward the degree at the discretion of the Department Graduate Advisor.)

Requirements

1. Advancement to Candidacy
 - a. Students must fulfill the University requirements for advancement to candidacy.
 - b. 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.
2. 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 serves 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.

Additional Requirements

Plan I

1. A minimum of 30 units of upper division and graduate courses including PHYS 540A,B, 550A,B, 560A, and 695;
 2. Completion of a written thesis, 6 units of PHYS 698, and an oral presentation of the thesis research. The members of the candidate's thesis committee must approve the thesis before the student may schedule the oral presentation.
- Note: Students must be advanced to candidacy before enrolling in PHYS 698. As early as possible, a graduate student should choose a thesis advisor who will help in

selecting the student's thesis committee consisting of at least three members (including the thesis advisor and at least one other member of the Department).

Plan II

1. Permission of the Department Graduate Committee;
2. A minimum of 30 units of upper division and graduate courses including PHYS 510, 540A,B, 550A,B, 560A, and 695;
3. Passing a comprehensive examination.

The remaining required units, not more than 6 of which may be in related fields, are to be from courses selected in consultation with the graduate advisor.

Option in Applied Physics (code PHYSMS02)

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, 340AB, and 450, as determined by the Department Graduate Advisor, or
3. A bachelor's degree with upper division physics and mathematics courses essentially equivalent to PHYS 310, 340B, 450, and MATH 370A and 370B, as determined by the Department Graduate Advisor.

Students deficient in undergraduate preparation must take courses to remove these deficiencies as determined by the Department Graduate Advisor.

Requirements

1. Advancement to Candidacy
 - a. Students must fulfill the University requirements for advancement to candidacy.
 - b. 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.
2. 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.

Additional Requirements

Thirty units of upper division and graduate courses as described below.

1. PHYS 540A, 550A, 560A, 569, and 695.
2. Two of the following courses or combinations of courses: PHYS 502/503, 545, 575/576, and 580.
3. Completion of a written thesis, 6 units of PHYS 698, and an oral presentation of the thesis research. The members of the candidate's thesis committee must approve the thesis before the student may schedule the oral presentation.

Note: Students must be advanced to candidacy before en-

rolling in PHYS 698. As early as possible, a graduate student should choose a thesis advisor who will help in selecting the student's thesis committee consisting of at least three members (including the thesis advisor and at least one other member of the Department).

4. Courses selected in consultation with the Department Graduate Advisor and/or thesis advisor to complete the remaining 2 to 3 units.

Physics Courses (PHYS)

Lower Division

100A,B. General Physics (4,4) F,S

Prerequisites: MATH 112 or 117 or 119A or 120 or 122. PHYS 100A is a prerequisite for PHYS 100B. Year course in introductory physics. The first semester considers properties of matter, mechanics, wave motion and heat. The second semester considers electricity, light, and atomic and nuclear physics. Letter grade only (A-F). (Lecture 3 hrs, laboratory 3 hrs.) (100A: CAN PHYS 2; 100B: CAN PHYS 4)

102. Introduction to Physics (3) F,S

Prerequisite: MATH 117 (which may be taken concurrently) or three-and-one-half years of high school mathematics including two years of algebra, one year of geometry and one-half year of trigonometry. This course is designed to assist students who need additional preparation before enrolling in PHYS 100A or 151. Basic problems and concepts in physics, particularly in mechanics. Credit/No Credit grading only. (Lectures, problem sessions 4 hrs.) Course begins in the fourth week of the semester.

151. Mechanics and Heat (4) F,S

Prerequisite: MATH 122. Kinematics, Newton's Laws, rotational motion, fluid statics, laws of thermodynamics. Letter grade only (A-F). (Lecture 3 hrs., laboratory 3 hrs.)

152. Electricity and Magnetism (4) F,S

Prerequisites: PHYS 151, 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

Prerequisites: PHYS 152 or EE 210, MATH 224. Geometrical and physical optics, models of atomic and condensed matter systems. Not open 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)

Prerequisites: PHYS 254, which may be taken concurrently. Experimental work in optics and modern physics. Not open 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.)

Upper Division

310. Mechanics I (3) F

Prerequisites: PHYS 151. Prerequisite or Corequisite: MATH 370A or 364A. Kinematics and dynamics of mass points and systems of particles. Conservation laws. Harmonic motion. Central force problem. Noninertial frames of reference. Lagrangian and Hamiltonian formulation of the laws of mechanics. Letter grade only (A-F). (Lecture 3 hrs.)

320. Classical and Statistical Thermodynamics (3) F

Prerequisite: PHYS 152. Prerequisite or co-requisite, PHYS 254. Laws of thermodynamics, thermodynamic potentials, kinetic theory methods, phase transitions, equilibrium ensembles and related formalism with applications to classical and quantum systems. (Lecture 3 hrs.)

Physics Courses (PHYS)

330. Experimental Optics and Spectroscopy (3) F

Prerequisites: PHYS 254, 255. Interference, diffraction, polarization and elementary spectroscopy. (Lecture 2 hrs., laboratory 3 hrs.)

340A. Electricity and Magnetism I (3) S

Prerequisites: PHYS 152, PHYS 310. Prerequisite or Corequisite: MATH 370A or 364A. Vector calculus, electrostatics, and magnetostatics. Formulation of Maxwell's equations in vector analytic form. (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 364A. Physical phenomena and models leading to the 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.)

360. Computers in Physics (3) F

Prerequisite: PHYS 152. Prerequisite or Corequisite: MATH 370A or 364A. Introduction to the use of the personal computer in physics calculations and analysis. Introduction to the Mathematica software. Introduction to interpolation and fitting of experimental data. Examples of symbolic (analytic) calculations, numerical solutions, and graphical display of results for a variety of physics problems. Introduction to programming in Mathematica. (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.)

402./502. Fourier Methods in Physics (3) F, odd years

Prerequisites: PHYS 310, MATH 370B or 461. (Undergraduates register in PHYS 402; graduates register in PHYS 502.) Fourier transforms in time and space, convolution, generalized functions, impulse response and transfer function. Application of Fourier techniques to problems in classical acoustics and optics: oscillators, directional radiators, holography and imaging in general. (Lec 3 hrs)

403./503. Fourier Physics Laboratory (1) F, odd years

Prerequisite: PHYS 402 which may be taken concurrently. (Undergraduates register in PHYS 403; graduates register in PHYS 503.) Selected experiments in acoustics and optics illustrating Fourier techniques in wave physics. Detailed study of the discrete Fourier transform and its application to experimental measurements and calculations. (Laboratory 3 hrs.)

410./515. Relativity (3) F, odd years

Prerequisite: PHYS 340A. Prerequisite or Corequisite: MATH 370A or 364A. (Undergraduates register in PHYS 410; graduates register in PHYS 515.) The 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. (Lecture-discussion 3 hrs.)

422./522. Thermal Physics (3) F, even years

Prerequisites: PHYS 310, 320, 350. (Undergraduates register in PHYS 422; graduates register 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. (Lec-discussion 3 hrs)

434./534. Astrophysics (3) F, even years

Prerequisites: PHYS 310, 320, and 340A or consent of the instructor. (Undergraduates register in PHYS 434; graduates register in PHYS 534.) Selected 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. (Lecture 3 hrs)

444./544. Plasma Physics (3) S, odd years

Prerequisites: PHYS 340A. (Undergraduates register in PHYS 444; graduates register in PHYS 544.) Characteristic behavior of high temperature plasma. Particle trajectories, two-fluid and hydromagnetic models, waves, instabilities and transport processes. Applications to astrophysical, geophysical and laboratory plasmas. (Lecture 3 hrs.)

445./545. Fundamentals and Techniques of Materials Physics (3) S, odd years

Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates register in PHYS 445; graduates register in PHYS 545.) Fundamentals of materials physics and physical properties of matter, principles and operation of the scanning tunneling and scanning force microscopes, resistance and temperature measurements. (Lecture 2 hrs., laboratory 3 hrs.) Letter grade only (A-F).

450. Quantum Physics I (3) F

Prerequisites: PHYS 310, 340A, 350. Schroedinger equation, atomic physics, harmonic oscillator, scattering, perturbation theory, Heisenberg and Dirac representations, spin, symmetries (angular momentum, time reversal, and parity), applications. (Lec-discussion 3 hrs.)

*451. Quantum Physics II (3) S, even years

Prerequisite: PHYS 450. Measurement processes, atomic physics, identical particles, quantum statistics, numerical methods, many-body systems, density matrix, applications. (Lecture-discussion 3 hrs.)

470./569. Introduction to Solid State Physics (3) S, odd years

Prerequisite: PHYS 450. (Undergraduates register in PHYS 470; graduates register 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. (Lecture 3 hrs.)

475./575. Modern Optics (3) F, even years

Prerequisite: PHYS 340A. (Undergraduates register in PHYS 475; graduates register in PHYS 575.) Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected application. (Lecture 3 hrs.)

476./576. Modern Optics Laboratory (1) F, even years

Prerequisites: PHYS 475/575 which may be taken concurrently. (Undergraduates register in PHYS 476; graduates register in PHYS 576.) Selected experiments illustrating principles and techniques of current interest in electro-optics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics. Letter grade only (A-F). (Laboratory 3 hrs.)

480./580. Computer Interfacing in Experimental Physics (3) S, even years

Prerequisite: PHYS 380 or consent of instructor. (Undergraduates register in PHYS 480; graduates register in PHYS 580.) Introduction to modern data acquisition and analysis methods using computer-based equipment and high level software. Selected physics experiments are performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. The use of the computer as a tool in the execution and interpretation of physics experiments is emphasized. (Lecture 2 hrs., laboratory 3 hrs.)

490./590. Special Topics in Physics (3)

Prerequisite: Consent of instructor. (Undergraduates register in PHYS 490; graduates register in PHYS 590.) Topics of interest in physics selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, low temperature physics, acoustics and theoretical physics. Both undergraduate and graduate students may take the course for a maximum of 6 units of credit. (Lecture 3 hrs.)

496. Special Problems in Physics (1-3)

Prerequisites: Consent of instructor and senior standing. Problems in physics. Problems selected by instructor for considered and mature analysis. A written and 10-minute oral report are required. May be repeated for credit to a maximum of 4 units.

Graduate Level

500. Research Methods (1)

Prerequisite: Consent of instructor. Directed study of the literature about research methods in physics. May be repeated once but only one unit may be applied to the requirements for the Master of Science in Physics.

502./402. Fourier Methods in Physics (3) F, odd years

Prerequisites: PHYS 310, MATH 370B or 461. (Undergraduates register in PHYS 402; graduates register in PHYS 502.) Fourier transforms in time and space, convolution, generalized functions, impulse response and transfer function. Application of Fourier techniques to problems in classical acoustics and optics: oscillators, directional radiators, holography and imaging in general. (Lecture 3 hrs.)

503./403. Fourier Physics Laboratory (1) F, odd years

Prerequisite: PHYS 502 which may be taken concurrently. (Undergraduates register in PHYS 403; graduates register in PHYS 503.) Selected experiments in acoustics and optics illustrating Fourier techniques in wave physics. Detailed study of the discrete Fourier transform and its application to experimental measurements and calculations. (Laboratory 3 hrs.)

510. Graduate Mechanics (4) F

Prerequisite: PHYS 310. Variational principles, Lagrange's equations, Hamilton's equations, canonical transformations, Hamilton-Jacobi theory, relativistic mechanics and small oscillation theory. (Lecture 4 hrs.)

515./410. Relativity (3) F, odd years

Prerequisite: PHYS 340A. Prerequisite or Corequisite: MATH 370A or MATH 364A. (Undergraduates register in PHYS 410; graduates register in PHYS 515.) The 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. (Lecture-discussion 3 hrs.)

522./422. Thermal Physics (3) F, even years

Prerequisites: PHYS 310, 320, 350. (Undergraduates register in PHYS 422; graduates register 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. (Lecture-discussion 3 hrs.)

534./434. Astrophysics (3) F, even years

Prerequisites: PHYS 310, 320, and 340A or consent of the instructor. (Undergraduates register in PHYS 434; graduates register in PHYS 534.) Selected 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. (Lecture 3 hrs.)

540A. Graduate Electricity and Magnetism and Electrodynamics I (3) S

Prerequisite: PHYS 340B. Boundary-value problems, applications of special functions to electro/magnetostatics, Green's function techniques, multipole expansion of the electrostatic field, dielectric media, Maxwell's equations, electromagnetic waves. (Lecture 3 hrs.)

540B. Graduate Electricity and Magnetism and Electrodynamics II (3) F

Prerequisites: PHYS 540A. Covariant formalism, simple radiating systems, radiation by moving charges, and selected topics in electrodynamics chosen from the following: wave guides, magnetohydrodynamics, thermodynamics and electrodynamics of continuous media, and radiation reaction. (Lecture 3 hrs.)

544./444. Plasma Physics (3) S, odd years

Prerequisites: PHYS 340A. (Undergraduates register in PHYS 444; graduates register in PHYS 544.) Characteristic behavior of high temperature plasma. Particle trajectories, two-fluid and hydromagnetic models, waves, instabilities and transport processes. Applications to astrophysical, geophysical and laboratory plasmas. (Lecture 3 hrs.)

545./445. Fundamentals and Techniques of Materials Physics (3) S, odd years

Prerequisites: PHYS 254; PHYS 450 or consent of instructor. (Undergraduates register in PHYS 445; graduates register in PHYS 545.) Fundamentals of materials physics and physical properties of matter, principles and operation of the scanning tunneling and scanning force microscopes, resistance and temperature measurements. Graduate students are required to perform additional assignments and/or examinations. (Lecture 2 hrs., laboratory 3 hrs.) Letter grade only (A-F).

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. (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. (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. (Lecture 3 hrs.)

555. Elementary Particle Physics (3) S, even years

Prerequisites: PHYS 310, 340B, 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. (Lecture 3 hrs.)

560A,B. Methods of Mathematical Physics (4,3)

Prerequisites: MATH 370A,B or equivalent. Linear vector spaces, eigen-value problem, functions of a complex variable, special functions, properties and methods of solving partial differential equations of physics, integral equations, tensor analysis and group theory. (Lecture 4,3 hrs.)

569./470. Introduction to Solid State Physics (3) S, odd years

Prerequisite: PHYS 450. (Undergraduates register in PHYS 470; graduates register 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. (Lecture 3 hrs.)

570. Solid State Physics (3) F

Prerequisite: PHYS 450. The modern theory of solids from the standpoint of quantum mechanics. Binding in solids, energy bands, electrical thermal and magnetic properties, imperfections, and semiconductors. (Lecture 3 hrs.)

575./475. Modern Optics (3) F, even years

Prerequisite: PHYS 340A. (Undergraduates register in PHYS 475; graduates register in PHYS 575.) Propagation of electromagnetic waves, optical resonators, laser spectroscopy and operation, optical phase conjugation, nonlinear optics and selected applications. (Lecture 3 hrs.)

576./476. Modern Optics Laboratory (1) F, even years

Prerequisite: PHYS 475/575 which may be taken concurrently. (Undergraduates register in PHYS 476; graduates register in PHYS 576.) Selected experiments illustrating principles and techniques of current interest in electro-optics and laser physics. Applications include optical methods in communications, atomic spectroscopy, and nonlinear optics. Letter grade only (A-F). (Laboratory 3 hrs.)

Physics Courses (PHYS)

580./480. Computer Interfacing in Experimental Physics (3) S, even years

Prerequisite: PHYS 380 or consent of instructor. (Undergraduates enroll in PHYS 480; graduates enroll in PHYS 580.) Introduction to modern data acquisition and analysis methods using computer-based equipment and high level software. Selected physics experiments are performed with standard personal computers, research-quality data acquisition hardware, and programmable instruments. The use of the computer as a tool in aiding the execution and interpretation of physics experiments is emphasized. (Lecture 2 hrs., laboratory 3 hrs.)

590./490. Special Topics in Physics (3)

Prerequisite: Consent of instructor. (Undergraduates register in PHYS 490; graduates register in PHYS 590.) Topics of interest in physics selected for intensive development. Topics to be selected from such areas as atomic and nuclear physics, astrophysics, physics of materials, applied optics and laser spectroscopy, low temperature physics, acoustics and theoretical physics. Both undergraduate and graduate students may take the course for a maximum of 6 units of credit. (Lecture 3 hrs.)

599. Quantum Field Theory (3)

Prerequisites: PHYS 550B or permission of instructor. Selected topics to be chosen from: Many-particle systems and field theory; interactions, bound states, and the S-matrix; gauge theories and Q.E.D.; path-integral picture. Selected applications from condensed matter physics, electro-weak interactions, Q.C.D., lattice gauge theory, conformal field theory, string theory. (Lecture 3 hrs.)

691. Directed Study (1)

Intensive study of advanced topics in physics. May be repeated once for credit.

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; only one unit of credit may be applied toward requirements for the master's degree. (Seminar 1 hr.)

695. Colloquium (1)

Prerequisites: Graduate standing. Weekly meetings for presentation and discussion of current research in physics even though only 1 unit is for the MS degree. All graduate students are expected to attend each semester they are enrolled in the University. Credit/No Credit grading only. (Seminar 1 hr.)

697. Directed Research (1-3)

Theoretical and experimental problems in physics requiring intensive analysis.

698. Thesis (1-6)

Planning, preparation, and completion of an acceptable thesis in partial fulfillment of the requirements for the master's degree. A half-hour seminar presenting and defending the results of the thesis is required. Credit to be obtained only upon formal acceptance of thesis.

Astronomy Courses (ASTR)

Lower Division

100. Astronomy (3) F,S

Prerequisite/Corequisite: One course from category B.2 of the GE Cornerstone. 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 the GE Cornerstone: ASTR 100. Astronomical coordinates, star maps, magnitude, spectral classification, ages of stars, distance to star clusters. Letter grade only (A-F). Not open to students with credit in ASTR 101. (Laboratory 3 hrs.)

Upper Division

370I. Planetary Environments (3) F, S

Prerequisites: Completion of the G.E. Foundation and the G.E. B.1.b category; upper-division standing. Analysis of planets in our own solar system with particular emphasis on plate tectonics and the locally relevant subject of seismology. Also considered are the origin and evolution of terrestrial life, including the role of extinction events, and the probability of life elsewhere in the universe. May not be used by physics majors toward meeting GE requirements. Letter grade only (A-F). (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 the GE Cornerstone. Selected processes which illustrate some of the basic principles used by scientists to interpret modern ideas of matter and energy in the physical universe. Students with a full year course in high school physics or chemistry should elect some other lower division course in chemistry, geology or physics. Not open for credit to majors in any of the physical sciences. (Lecture 2 hrs., laboratory 3 hrs.)

Upper Division

331. Light, Lasers and the Visual Image (3)

Nonmathematical course that describes light, its behavior and applications. Emphasis on image formation, optical instruments, science of color, lasers, holography and analysis of light for elements, planets and stars. Colorful demonstrations using lasers and holograms including kinetic art. Recommended for art and other non-science majors. (Lecture-demonstration 3 hrs.)

POLITICAL SCIENCE

College of Liberal Arts

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Robert E. Hayes (Emeritus, 2001)

Stephen Horn

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Charles Noble

Gerry Riposa

Ronald J. Schmidt

Christian Soe (Emeritus, 2001)

Barry H. Steiner

A. Jay Stevens (Emeritus, 2002)

Associate Professors

Mary Caputi

Larry F. Martinez

Edwin Roberts

Paul C. Schmidt

Teresa Wright

Assistant Professors

Renée Cramer

Cora Goldstein

Liesl Haas

Richard Haesly

Daniel J. O'Connor

Administrative Coordinator

Nancy St. Martin

Students desiring information should contact the department office for referral to one of the faculty advisors:

Credential Coordinator

Arlene Lazarowitz (History)

Undergraduate Advisor

Mary Caputi

Larry Martinez

Graduate Coordinator

Ronald J. Schmidt

Pre-Law Advisor

Renée Cramer

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The political science major is designed to provide the student with a systematic knowledge of the nature and scope of political science. A student may elect to major in political science as a preparation for such fields as: (1) college or university teaching, (2) law, (3) government career service, (4) foreign career service, and (5) politics. In addition, a political science major is preparation for general education, good citizenship and participation in political life. Students interested in the fields mentioned above should consult with an advisor to secure aid in planning their programs.

Pre-Law Program and Preparation

Political Science continues to be one of the more popular and successful roads to law school and careers in the legal field. Combining a broad exposure to liberal arts and other social sciences with an in-depth immersion in government studies and public law, plus opportunities to intern in legal settings, Political Science provides a rich preparation for those interested in pursuing careers in law. Students interested in our program should consult with the Pre-law advisor in Political Science both to plan a carefully thought out undergraduate course of study and to successfully prepare for admission to law schools.

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 326. Students who have taken American federal, state or local government at another institution should check with the political science advisor before enrolling.

Bachelor of Arts in Political Science (code POSCBA01) (120 units)

Requirements

Required Courses: (9 units) POSC 300A, 300B, and POSC 100 or 391

Breadth Requirement: (24 units) Three upper division units from five of the following six areas:

- International Relations
- Comparative Politics
- Political Theory
- Public Law
- American Government and Politics
- Public Policy and Administration

Nine units of electives in Political Science courses, 6 of which may be in the lower division. Any upper division courses may be used to fulfill this requirement including POSC 388I, 395I, 418, 447, 448, 494I, 496, 497, 498, or 499. A maximum of 6 units of internship may be used to fulfill degree requirements.

Concentration Requirement: (9 units) Nine units from a sixth area, three units of which must be the senior seminar in that area (e.g., POSC 409, 419, 429, 449, 469, or 489.)

Social Science Requirement: (6 units) Six upper division units taken from American Indian Studies, American Studies, Anthropology, Asian and Asian American Studies, Black Studies, Chicano and Latino Studies, Economics, Geography, History, Human Development, Psychology, Sociology, Women's Studies, chosen in consultation with a Political Science Advisor. Total Units: 48

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) provided they have:

1. Junior standing, completed POSC 300A and at least two additional upper-division courses in Political Science;
2. A minimum of three semesters remaining before graduation;
3. A minimum cumulative GPA of 3.3, and 3.5 in Political Science courses;
4. Submitted to the Department Honors Committee two letters of recommendation from faculty members and an example of a research or analytical paper written for a previously taken course in Political Science;
5. Received admission approval from the Department Honors Committee.

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 cumulative GPA of at least 3.3 and a GPA of at least 3.5 in Political Science courses.

Minor in Political Science (code POSCUM01)

The Minor in Political Science is available to any non-Political Science major.

A minimum of 21 units which must include:

Lower Division: POSC 100 or 391, 300A

Upper Division: Five upper division courses (300/400 level) which may include one approved political science internship from 418, 447, 448, or 498.

Minor in Public Administration in Political Science (code POSCUM02)

The Minor in Public Administration in Political Science is available to any non-Political Science major.

A minimum of 21 units which must include: (a) POSC 430; (b) 9 units selected from POSC 431, 432, 433, 436, 438, 442, 449; (c) 6 units selected from POSC 300B, 322, 323, 326, 327, 328, 329, 420, 447, 448; (d) Three elective units from any area in political science chosen in consultation with an advisor.

Master of Arts in Political Science (code POSCMA01)

The Department of Political Science offers graduate study leading to the master of arts degree. The student is urged to become acquainted with the general requirements of the Uni-

versity and the specific requirements of the department as stated in this *Catalog*. Important supplementary information about the steps leading to the master's degree in political science is contained in the Handbook for Graduate Students, which is available from the department upon request.

Before or soon after entering the program, the graduate student will normally consult with the department graduate advisor.

After beginning graduate study, the student is responsible for obtaining the consent of three fulltime members of the department's graduate faculty to serve on her/his graduate committee: one of these committee members, the chair, will be drawn from the student's major field of concentration and will serve as the student's academic advisor while two others will be drawn from the second and third fields of concentration respectively. The student should seek to have established her/his committee prior to the completion of the first year or the first 18 units of work as a graduate student in political science unless an exception is granted by the Department Graduate Committee.

Prerequisites

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. Completion of a minimum of one upper-division political theory course equivalent to POSC 301 or POSC 303 at CSULB, with a grade of "B" or better.
3. Students whose undergraduate work is deficient in political science will be required to make up certain courses. Deficiencies will be determined by the Department's Graduate Committee after taking into account each student's background and goals. These courses will not count toward credit in the M.A.
4. A 3.0 ("B") GPA in political science 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.)
5. Three letters of recommendation (preferably from academic sources).

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

1. A student's program is formulated in consultation with an advisor selected from the department's faculty. A minimum of 30 units of acceptable upper division and graduate courses is required. All students are required to take both POSC 500 and POSC 550. A minimum of 15 units must be concentrated in three of the fields into which the department's curriculum is divided. An additional six units may be taken in Political Science or in another field of study closely related to the candidate's educational objectives. The program must include a minimum of 18 units in the 500/600 series of POSC;

- The graduate student must complete one of the following requirements: (a) A comprehensive examination in each of two fields of Political Science (b) A thesis;

Students following the comprehensive examination option will earn 3 units of credit in POSC 697 and those writing a thesis will be granted three units of credit in POSC 698;

- In addition to completing the above requirements, the graduate student must complete (or show that she/he has completed) one of the following requirements:
 - A minimum of two semesters of an acceptable foreign language taken at the college level with a grade of "B" or better;
 - A demonstrated reading knowledge of an acceptable foreign language;
 - A minimum of two semesters of acceptable course work in statistics with a grade of "B" or better.

Interdisciplinary Minor in Public Policy (code POSCUM03)

The purpose of this program is to enable persons majoring in fields related to public policy to gain a broader understanding of the substance of public policies, the underlying social, economic and political factors related to policy alternatives, the dynamics of the public policy decision-making process, the values implicit in these decisions, and methods by which these aspects of public policy may be analyzed.

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 the minor.

Requirements

- Core Curriculum: (12 units required):** Twelve units chosen from among the following courses: ECON 450, GEOG 466, POSC 328, PSY 375I, U/ST 301I.

Note: It is strongly recommended that students take the core curriculum courses in sequence, the first two courses during the Junior year; the second two during the Senior year.

- 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. See program director or a member of the Faculty Advisory Committee for a student handbook that lists all courses approved as electives.

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.

Courses (POSC)

Lower Division

100. Introduction to American Government (3)

Prerequisite/Corequisite: Any GE Foundation course. Introductory survey of American Political Institutions, politics, and policy, including government and politics in California. Constitutional founda-

tions and current controversies. Satisfies the general education requirement and the California teaching credential requirement. (CAN GOVT 2)

105. Introduction to Critical Thinking (3)

Prerequisites/Corequisite: Completion/concurrent enrollment in ENGL 100 or equivalent. Introduces students to the discipline of critical thinking by studying examples of philosophical writing, political rhetoric, and political propaganda. Emphasis on developing an analytic distance on ideological issues by surveying texts in political theory that distinguish a fact from a value, inductive from deductive reasoning, and an emotional response from reasoned judgment. Explores the relationship between language and logic, the role of inference in the formulation of opinions and arguments, and the value of intellectual honesty.

201. Introduction to Political Science (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100. Introduction to the principles of political science. Major terms, concepts, functions, and institutions relating to the processes of politics.

210. Issues of American Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100. Intensive study of issues associated with the concepts of democracy, limited government, federalism, separation of powers, judicial review, and preservation of individual rights.

215. Issues of Comparative Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100. Intensive study of issues associated with selected foreign governments, modernization, revolution, political change and world ideological conflict.

220. Issues in Global Politics (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100. Divergences between nations as they affect political differences between states. The political significance of the encounter of individuals with those of different nationalities.

225. Issues in Political Theory (3)

Prerequisite: Completion of GE Foundation requirements and 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.

230. Issues in Political Economy (3)

Prerequisite: Completion of GE Foundation requirements and POSC 100. The relationship between politics and economics in contemporary societies; theories of political economy; the development of economic and regulatory policies in advanced capitalist democracies.

The Political Science Department upper division courses fall into several curricular sub-groups, as follows:

Political Theory

- 301. Classical Political Theory
- *303. Modern Political Theory
- *304. Recent Political Theory
- *306. Contemporary Political Ideologies
- *308. American Political Theory
- *401. Women in Political Theory
- *409. Senior Seminar in Political Theory

Public Law

- *311. Constitutional Law: Power
- *312. Constitutional Law: Rights
- *316. Administrative Justice and Law Making
- *318. Modern Legal Systems
- 412. Law and Social Change
- *414. Jurisprudence
- 418. Legal/Judicial Apprenticeship
- *419. Senior Seminar in Public Law

American Government and Politics

- 321. The Media and American Politics
- 322. Political Parties
- 323. Racial and Ethnic Politics - U.S.
- 326. California Government in Comparative Perspective
- *327. Urban Politics
- *420. Voting, Campaigns and Elections
- *422. Public Opinion
- *423. The American Presidency
- *424. The Legislative Process
- *428. Political Behavior
- *429. Senior Seminar in American Government and Politics

Public Policy and Administration

- 328. Introduction to Public Policy
- *329. The Policy Making Process
- 430. Fundamentals of Public Administration
- *431. Public Policy Analysis
- *432. Public Values and Public Policy
- *433. Public Organization and Management
- *436. Public Personnel Administration
- *438. Comparative Public Administration
- *442. Planning Cities and Urban Regions
- 447. Public Administration Internship I
- 448. Public Administration Internship II
- *449. Senior Seminar in Public Policy and Administration

Comparative Politics

- 353. Government and Politics of Western Europe
- *356. Politics of the Soviet Union and its Successors
- *358. Contemporary Latin American Politics
- *359. Latin American Comparative Political Systems
- *362. Society and National Politics of China
- *363. Society and National Politics of Japan
- *366. Governments and Politics of Southeast Asia
- *367. Governments and Politics of the Middle East
- 450. Comparative Political Movements
- *455. Comparative Revolutionary Change
- 461I. The Politics of Development
- *469. Senior Seminar in Comparative Politics
- 481. U.S. - Latin American Relations

International Relations

- 371. Introduction to International Politics
- *376. International Law
- *378. International Organization and Administration
- 482. American Foreign Policy
- *485. International Political Economy
- *486. National Security Policies
- *489. Senior Seminar in International Politics

General

- 300A. Political Inquiry
- 300B. Quantitative Methods in Political Science
- 388I. Cyberspace Citizenship
- 391. American Government
- 395I. Politics Through Culture
- 490H. Honors Seminar
- 491H. Honors Research
- 492H. Honors Thesis
- *493. Special Topics
- 494I. Politics of the Future
- 496. Washington Center Internship
- *497. Special Topics
- *498. Practicum in Politics
- *499. Readings and Conference in Political Science

Upper Division

General Education Category A must be completed prior to taking any upper division course.

300A. Political Inquiry (3)

An examination of the key debates over what constitutes the proper methodological approach to the study of political and social phenomena. Topics include the philosophy of science and theoretical problems in Liberal, Marxist, and Post-Structuralist thought. (Lec 3 hrs)

300B. Quantitative Methods in Political Science (3)

Problems of data collection and analysis. Impact of research methods on findings. No prior knowledge of statistics is assumed. Only basic mathematical skills are needed for success in this course. (Lecture 3 hours)

301. Classical Political Theory (3)

Prerequisites: Completion of the GE Foundation; POSC 100. The roots of political inquiry in the works of ancient Greek and Roman political theorists such as Socrates and the Sophists, Plato, Aristotle, Cicero, Polybius, and the Stoics. Major themes will be the relationship between the individual citizen and the Polis, justice and equality, democracy and dictatorship, and the political culture of Mediterranean world.

*303. Modern Political Theory (3)

The emergence of modern political thought from the 17th through the 19th century in Western Europe in reaction to the English Civil War and Industrial and French Revolutions. Views of state and society expressed in the differing perspectives of John Locke, Thomas Hobbes, Jean Jacques Rousseau, John Stuart Mill, Edmund Burke, George Hegel, and Karl Marx.

*304. Recent Political Theory (3)

A critical study of major themes in political thought in industrial and post-industrial society, from the late 19th century until today. Recent thinkers who have made significant contributions to the understanding of the relationships among the individual, society, and politics will be examined.

*306. Contemporary Political Ideologies (3)

A critical examination of the nature and role of ideologies in contemporary politics. Among the major political belief systems studied will be important examples of 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 391 or equivalent. Judicial interpretation of the U.S. Constitution regarding judicial review; the power of the Presidency and the Congress; state governmental authority; nature of the American Federal System. Not open to students with credit in POSC 315.

*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 with leading cases. Not open to students with credit in POSC 314.

*316. Administrative Justice and Law Making (3)

Process by which administrative agencies decide quasi-judicial cases involving private rights, and make rules and regulations of a quasi-legislative nature affecting private rights with reference to leading judicial decisions.

*318. Modern Legal Systems (3)

Nature of law, public and private. Emphasis on cases and materials illustrating development of Anglo-American legal institutions and processes. Background for the professional study of law.

321. The Media and American Politics (3)

Prerequisites: Completion of 13 units of Foundation Courses; POSC 100 or permission of instructor. Explore the role of print and electronic media in American politics and their relationship to politicians and the public. Assesses the media's impact on government, policy making, election campaigning, and the prospects for demo-

cratic deliberation. Special attention paid to the portrayal of political issues and political themes in popular culture, including film, television, and music. Letter grade only (A-F).

322. Political Parties (3)

Prerequisites: Completion of GE Foundation requirements. Organization, functions and practices of political parties in the United States with special emphasis on California parties. Analysis of the part the political parties play in government and the importance of the two-party system in American government. Party responsibility in the United States in comparison with parties in other countries.

323. Racial and Ethnic Politics - U.S. (3)

Prerequisites: Completion of the GE Foundation; 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. Close attention to political debates over competing approaches, strategies and public policies promoting equality in the U.S.

326. California Government in Comparative Perspective (3)

Prerequisites: Completion of GE Foundation requirements. The government and politics of American States including intergovernmental relations. Special focus on political institutions, current issues, and public policies in California. May not be taken to fulfill G.E. credit except under category D.1.b.

*327. Urban Politics (3)

The institutions and processes by which social conflicts in American urban areas are generated, articulated, and managed. Urban political culture, power structures, group development and activity, and governance and policy-making are emphasized. Special attention directed toward the evaluation of urban political problems and solutions.

328. Introduction to Public Policy (3)

Prerequisites: Completion of the GE Foundation; POSC 100. Analysis of major contemporary United States domestic policies including agriculture, income maintenance, economic regulations, worker training, conservation, crime control and revenue-sharing.

*329. The Policy Making Process (3)

Prerequisites: Completion of GE Foundation, POSC 100, and POSC 328. Advanced examination of the policy process and the social, economic, and political forces and contexts that influence and are in turn conditioned by it. In depth study of substantive policy area currently on the national and/or state public agenda.

353. Government and Politics of Western Europe (3)

Prerequisites: Completion of the GE Foundation and POSC 100. Governments of representative European democracies, with emphasis on governmental structure, functions and political processes and their relationship to current problems.

*356. Politics of the Soviet Union and its Successors (3)

Examination and analysis of the evolution and fall of the Soviet system, with particular emphasis on the crisis of one-party rule and the rise of new political institutions and forces.

*357. Politics of East-Central Europe (3)

Comparative examination and analysis of the political evolution of the countries of East-Central Europe. Particular emphasis on the post-World War II period, the rise and fall of one-party systems, and the impact of Soviet domination.

*358. Contemporary Latin American Politics (3)

Study of government and politics with emphasis on similarities and differences of the Latin American states. Major focus on principal groups and major issues in the political process. Conflicting explanations of the obstacles to development and other current problems will be examined.

*359. Latin American Comparative Political Systems (3)

Comparative study of the political process and public policies of selected Latin American states. Includes an examination of major political, social, and economic issues and problems associated with modernization.

*362. Society and National Politics of China (3)

Study of the People's Republic of China, including its origin, ideology, and organization. Contemporary social, economic, and political developments.

*363. Society and National Politics of Japan (3)

Examination of Japan's political development since 1868 with special emphasis on the social and cultural bases of Japan's political system, party politics, governmental process, political economy, and foreign relations.

*366. Governments and Politics of Southeast Asia (3)

Emergence and development of the contemporary political systems of Southeast Asia.

*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: Completion of the GE Foundation; POSC 100. This course examines relations among nation-states, and explores why countries sometimes cooperate and sometimes go to war. Examines the roles of intergovernmental organizations like the UN, the WTO, and NATO, and non-governmental actors like Amnesty International and Al-Qaeda. Topics include war and peace, terrorism, international trade and finance, 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. International Organization and Administration (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.

388I. Cyberspace Citizenship (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Study how people and institutions are migrating political, social, and economic functions to the Internet. Examine how the Internet is merging mass media, computer, and telecommunications into a new realm for human civilization: Cyberspace. Survey of cyberspace landscapes being settled by "virtual" communities, online commerce centers, Web free speech fora, and evolving governmental institutions for managing property rights, Internet expansion and resolving cyberspace conflicts. Explore the multiple dimensions of participatory citizenship in cyberspace.

391. American Government (3)

Prerequisites: Completion of GE Foundation requirements. 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 to students with credit in POSC 100.

395I. Politics Through Culture (3)

Prerequisites: Completion of the GE Foundation, completion of one Explorations course, and upper division standing. This is a course that examines the interplay of politics and cultural studies. Students will employ a variety of theoretical perspectives in analyzing contemporary cultural artifacts such as art, film, music, and the media.

*401. Women in Political Theory (3)

Prerequisite: Students must have completed one course in either political science or women's studies. Differential treatment of women and men in western political theories, including femininity, power, rationality and the role of the women in the family. Classic and contemporary texts. Same course as W/ST 402.

*409. Senior Seminar in Political Theory (3)

Prerequisites: 6 units in political theory courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in political theory.

412. Law and Social Change (3)

Prerequisites: Completion of the GE Foundation; POSC 100. Examines the legal strategies pursued by social movements seeking to remedy discrimination in the U.S. as well as legislative, administrative, and judicial responses. Topics may include gender equity, sexual harassment, voting rights, racial discrimination in employment and education, 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.

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 six units. No more than three units of this internship course may apply toward the major in political science. A maximum of six units may be earned in 418, 447, 448, and 498 combined. Credit/No credit grading only.

***419. Senior Seminar in Public Law (3)**

Prerequisites: Six units in public law courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in public law.

***420. Voting, Campaigns and Elections (3)**

Analysis of factors influencing citizen's voting choices; methods used by candidates seeking electoral support; changes and trends in American elections.

***422. Public Opinion (3)**

Formation and development of public opinion; methods of measuring public opinion in the political system.

***423. The American Presidency (3)**

The roles and powers of the American presidency with emphasis on major public policies of recent presidents.

***424. The Legislative Process (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.

***428. Political Behavior (3)**

Introduction to the socio-psychological basis of individual political behavior. Emphasis upon political socialization, political culture and personality as explanations of political participation, the development of political values and political action.

***429. Senior Seminar in American Government and Politics (3)**

Prerequisites: Six units in American government and politics courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in policy formation and politics. Letter grade only (A-F).

430. Fundamentals of Public Administration (3)

Principles and practices of federal, state and local administration. Not open to students with credit in POSC 331.

***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.

***433. Public Organization and Management (3)**

Theories of organization and management with emphasis on their relation to administrative problems in civilian and military spheres of American government. Not open to students with credit in POSC 334.

***436. Public Personnel Administration (3)**

Survey of public personnel administration, including the growth and development of the civil service, the personnel agency, recruitment procedures, position classifications, training programs, employee organization and retirement systems. Not open to students with credit in POSC 336.

***438. Comparative Public Administration (3)**

Theories, models, structure and function of public administration in selected countries. Not open to students with credit in POSC 348.

***442. Planning Cities and Urban Regions (3)**

Policymaking and the role of the planner in cities and urban regions. Activities of federal, state and local governments. Social and environmental consequences of land use, zoning, transportation and design. Historic preservation. New communities.

447. Public Administration Internship I (3)

Prerequisite: Consent of instructor. Internships in one of the various federal, state or local governmental units in the immediate area. A maximum of six units may be earned in POSC 418, 447, 448, and 498 combined. Credit/No Credit grading only.

448. Public Administration Internship II (3)

Prerequisite: Consent of instructor. Internships in one of the various federal, state, or local governmental units in the immediate area. A maximum of six units may be earned in POSC 418, 447, 448, and 498 combined. Credit/No Credit grading only.

***449. Senior Seminar in Public Policy and Administration (3)**

Prerequisites: Six units in public policy and administration courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in public policy and administration.

450. Comparative Political Movements (3)

Prerequisites: Completion of the GE Foundation, completion of 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, courses and tactics past and present.

4611. The Politics of Development (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Problems of political development in the emergent nations of Asia, Africa and Latin America.

***469. Senior Seminar in Comparative Politics (3)**

Prerequisites: Six units of comparative politics courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in comparative politics.

481. U.S. - Latin American Relations (3)

Prerequisites: Completion of the GE Foundation, completion of one Explorations course, and upper division standing. Focuses on US policies toward Latin America and the Caribbean. Considers recent debates about these policies as well as their historical and global contexts. Surveys a variety of major issues, including US-Cuba policy, transnational crime/drug-trafficking, international finance, trade integration, and migration.

482. American Foreign Policy (3)

Prerequisites: Completion of GE Foundation; 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)**

Politics of global economic relations, including monetary and trade regimes, markets and multinational corporations. Emphasis on issues of confrontation and collaboration between countries regarding development strategies, services trade and technology transfer. Prospective students are strongly recommended to take POSC 371, 230, ECON 300 or the equivalent.

***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.

***489. Senior Seminar in International Politics (3)**

Prerequisites: Six units of international relations courses, consent of instructor. Intensive study of selected conceptual and theoretical problems in international relations.

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.) Letter grade only (A-F). Course meets with POSC 500.

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.) Letter grade only (A-F).

492H. Honors Thesis (3)

Prerequisites: POSC 491H. Research and writing of an Honors thesis under the direction of a department faculty advisor. (Independent Study.) Letter grade only (A-F).

***493. Special Topics (3)**

Prerequisite: Consent of instructor. Analysis of selected contemporary issues and problems. Topics to be announced in the *Schedule of Classes*.

494I. Politics of the Future (3)

Prerequisites: Completion of GE Foundation requirements, 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 who are accepted by the Washington Center will be assisted in locating a 30-35 hr. per week career related internship in a federal, corporate or independent sector agency located in Washington D.C. All participants utilize a learning contract. A final written report is required. Students must enroll concurrently in an independent studies course to earn credit for participation in the Washington Center's seminar. Credit/No Credit grading only. Course may be repeated for a max of 9 units. Directed Studies.

***497. Special Topics (3)**

Prerequisite: Consent of instructor. Analysis of selected contemporary issues and problems. May be repeated for a maximum of six units with different topics. Topics to be 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 six units. No more than three units may apply toward the major in political science. A maximum of six units may be earned in POSC 418, 447, 448, and 498 combined. Credit/No Credit grading only.

***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 status or consent of instructor. Approaches applied to the conceptual 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.

550. Research Methods in Political Science (3)

Prerequisite: POSC 500. Methods of empirical research in political science including 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. Only basic mathematical skills are needed for success in this course.

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 for 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 for a maximum of six units.

600. Seminar in International Politics (3)

Prerequisite: POSC 371 or equivalent. Seminar is designed to examine in depth various aspects of International Politics, such as the role of power, multiple dimensions of national interest, collective security, world peace, nationalism, and imperialism. Different themes selected for a given seminar become the subject of discussion and exchange of ideas in every session. May be repeated for a maximum of six units.

610. Seminar in Comparative Government (3)

Prerequisite: Three upper division units in comparative government. Comparative study of government and politics in selected foreign countries. Intensive study of the political institutions and policies of selected foreign governments. Emphasis on political parties and contemporary governmental policy. May be repeated for a maximum of six units.

620. Seminar in Political Theory (3)

Prerequisite: POSC 301 or 303 or equivalent. Analytical and critical examination of the major concepts of political theory. May be repeated for a maximum of six units.

640. Seminar in American Government and Public Law (3)

Prerequisite: Three upper division units in American Politics or Public Law. Intensive study of topics and problems in American government including issues in constitutional law and the judicial process. May be repeated for a maximum of 6 units.

645. Seminar in Policy Formulation and Implementation (3)

Prerequisites: Graduate standing or consent of instructor. Analysis of the policy making process and the political environment that shapes its activities, content, implementation, and impacts. Domestic and international policies will be integrated in the course to illustrate the structures, forces, and dynamics influencing the process. Letter grade only (A-F).

670. Seminar on Special Topics in Political Science (3)

Prerequisites: Graduate standing and consent of instructor. Research, discussion, and critical evaluation of selected topics and problems of current interest in political science. May be repeated for a maximum of 6 units with different topics. Letter grade only (A-F).

695. College Teaching Practicum (3)

Prerequisite: Consent of Graduate Director. 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 (1-6)

Prerequisite: Consent of Department Chair. Individual research or 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. A maximum of three units may be earned by students with credit in POSC 698. May be repeated to a maximum of six units.

698. Thesis (1-4)

Planning, preparation and completion of thesis for the master's degree.

GRADUATE CENTER FOR PUBLIC POLICY AND ADMINISTRATION

College of Health and Human Services

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Public administrators today are becoming increasingly aware of the fact that government is, indeed, the people's business. They are challenged to be both effective and efficient. They believe that people tend to support what they help to create. Working with citizens, they have brought the practice of public management to its highest level without giving up the desire to constantly change and improve. The difference is that today's public servants are recognized and rewarded in personal and material ways, making the study of public policy and administration a highly desirable career option.

The Graduate Center for Public Policy and Administration offers the Master of Public Administration degree; Options in the degree program include Public Works Administration and Urban Affairs; and graduate certificate programs exist in Urban Executive Management, the Public Management Analyst, Employer-Employee Relations and Personnel Management, Public Sector Financial Management, and Transportation Policy and Planning. The Center's graduate level programs are designed with a professional emphasis and a recognized need to provide course work that will increase the student's competency in public administrative processes and analysis. The Center's curriculum also is designed to emphasize the student's ability to apply new knowledge, skills, and leadership techniques to the solution of public problems.

Admission applications are encouraged from persons with successful government service who wish to pursue, part-time or full-time, a graduate program designed to prepare them for new opportunities in public service or to expand or extend their capacities in a present position. The Center provides education in public policy and administration to professional persons in such fields as public works, social services, public health, community development, criminal justice, educational administration, recreation administration, finance, personnel, policy analysis, urban and regional planning, systems analysis and urban administration. The Center is accredited by the National Association of Schools of Public Affairs and Administration, Commission on Peer Review and Accreditation (NASPAA, 1120 G Street, NW, Suite 730, Washington, DC 20005, phone: 202-628-8965).

A detailed summary of requirements, current course offerings and procedures for the Master of Public Administration degree program, the Options in Public Works Administration and in Urban Affairs, and the graduate certificate programs, are contained in student handbooks available from the Graduate Center for Public Policy and Administration and their web site at <http://www.csulb.edu/~beachmpa>.

Program Standards and Requirements

Admission

Students seeking admission to one of the Center's programs should have an undergraduate degree and a desire for graduate study in public administration. A student must

have an undergraduate grade point average of 2.75 or better. A student whose overall undergraduate grade point average is less than 2.75, 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.

Students applying for admission to one of the Center's programs are required to submit:

1. A completed Center Application Form for the specific degree or certificate program.
2. Transcripts of all course work completed in undergraduate education.
3. Two letters of recommendation from members of the academic profession under whom the applicant has studied, or from persons in positions of administrative leadership with whom the applicant has worked.
4. A one or two page statement concerning the applicant's reasons and plans for pursuing a career in public administration.

Following admission to the University and acceptance in one of the graduate programs, 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.

Advancement to Candidacy

The following are requirements for the degree and certificate programs:

1. Satisfaction of the general University requirements for advancement to candidacy;
2. Completion of all degree or program prerequisites;
3. Approval of the candidate's program by a faculty advisor and the Director of the Graduate Center for Public Policy and Administration;
4. Completion of six units of course work at this University toward the degree or program objective;
5. Earned a minimum GPA of 3.0 in all graduate work completed at this University, or transferred from other sources, to meet degree or program requirements.
6. Have passed the WPE.

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 (code PPA_MP01)

The Center offers an innovative professional graduate program of studies leading to the degree of Master of Public Administration. The 36-unit program is designed with a professional emphasis and a recognized need to provide students with an increased competency and perspective of the analytical and administrative processes of government. The MPA degree is sufficiently flexible that students may select a program of elective courses oriented toward a generalist program of studies, place emphasis on a staff specialization such as personnel, or permit a focus on a specific public program field such as criminal justice administration. In all cases, a common grounding in the core areas of public policy and administration is required; but beyond this, considerable freedom of choice enables students to select subjects which fit their particular backgrounds or career objectives.

Requirements

1. A minimum of 36 course units in graduate course work, with a minimum of 21 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 555, 577, 660, 670, and 696;
3. Completion of approved internship program (PPA 585) as required course work beyond the 36-unit minimum, or waiver of the internship requirement based on professional experience;
4. Additional elective course work in elective fields to meet the 36-unit minimum;
5. Successful completion of PPA 697 Directed Research and an approved Student Learning Portfolio.

University Courses Acceptable for the Master of Public Administration

A wide variety of graduate courses in other departments are also 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 (code PPA_MP02)

The purpose of the Option in Urban Affairs within the Master of Public Administration degree is to provide students who have particular interests in urban problems and processes with the opportunity to expand their knowledge and awareness in the field. In this broadly based interdisciplinary program, students can develop an understanding of the systemic nature of the urban environment and the interrelatedness of many urban problems. The program is designed to provide urban managers with ideas and techniques for dealing with various urban situations. Emphasis is on state and local government issues and responses.

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 36 course units in graduate course work, with a minimum of 24 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 555, 577, 610, 660, and 670, and 696;
3. Completion of an approved internship program (PPA 585) as required course work beyond the 36-unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 12 units of elective course work selected from: PPA 512, 517, 522, 523, 525, 527, 540, 546, 547, 548, 549, 550, 567, 571, 575, 581, 590; CRIM 512, 581, 621, 622, 623, 624, 630, 640, 641, 650; ECON 650; EDAD 541, 544; EDP 520, 530, 536, 555, 574, 576, 582, 615; GEOG 600, 650, 666; HIST 673; NRS 557; POSC 640; REC 521, 571;
5. Successful completion of PPA 697 Directed Research and an approved Student Learning Portfolio.

Option in Public Works Administration (code PPA_MP03)

This Option is designed to provide advanced knowledge to practitioners and pre-career students in the growing field of public works management. Course work prepares students in general public administration and specialized public works management activities, including appropriate technical subjects such as air and water pollution, water supply, waste disposal and management, energy, housing, and transportation.

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 36 course units in graduate course work, with a minimum of 27 units of 500/600 level courses in public policy and administration;
2. Satisfactory completion of PPA 500, 554, 555, 577, 660, 670 and 696;
3. Completion of an approved internship program (PPA 585) as required course work beyond the 36-unit minimum, or waiver of the internship requirement based on professional experience;
4. Completion of 9 units of elective course work selected from: PPA 515, 522, 527, 535, 540, 547, 549, 550, 552, 560, 575, 590; CE 504, 520, 522, 564, 565, 602;
5. Successful completion of PPA 697 or CE 697 Directed Research and an approved Student Learning Portfolio.

Graduate Certificate in Urban Executive Management (code PPA_CT01)

This program is designed to serve the post-graduate executive development needs of men and women in aspiring to top level positions in city and county governments. The goal of this program is to provide urban executives with a comprehensive

knowledge of strategic planning processes; dynamics of human relations; strategies for implementing policies; consensus building techniques; and economic and financial forces impacting on local governments

Prerequisite

In addition to the general admission requirements, applicants for the graduate certificate in Urban Executive Management should have significant upper level management experience in Public Administration, and a minimum of 10 years of progressively responsible management experience in government.

Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of PPA 542, 547, and 571;
3. Satisfactory completion of 3 elective courses selected from PPA 512, 525, 535, 550, 555, 560, 575, and 577.

Graduate Certificate in Public Management Analyst (code PPA_CT02)

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 the ability to blend qualitative, behavioral, and political skills necessary for success as an analyst in government.

Prerequisite

In addition to the 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 PPA 515, 517, 521, and 555;
3. Satisfactory completion of 2 elective courses selected from PPA 522, 523, 527, 540, and 560.

Graduate Certificate in Public Sector Employer-Employee Relations and Personnel Management (code PPA_CT03)

This program is designed for public sector managers and those aspiring 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.

Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of PPA 555, 575, and 577.
3. Satisfactory completion of 3 elective courses selected from PPA 527, 570, 571 and 581.

Graduate Certificate in Public Sector Financial Management (code PPA_CT04)

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.

Requirements

1. A minimum of 18 course units in graduate course work, including 3 required and 3 elective courses.
2. Satisfactory completion of PPA 555, 560, and 567;
3. Satisfactory completion of 3 elective courses selected from PPA 522, 527, 540, and 547.

Graduate Certificate in Transportation Policy and Planning (code PPA_CT05)

The purpose of this certificate program is to provide instruction in the skills and knowledge appropriate to professional activity in transportation policy and planning for urban transportation. Key support areas include urban planning, policy analysis, environmental policy, intergovernmental policy, personnel policy, and grants administration.

Requirements

1. A minimum of 18 course units in graduate course work, including 2 required and 4 elective courses.
2. Satisfactory completion of PPA 522, and 550.
3. Satisfactory completion of 4 elective courses selected from PPA 535, 540, 575, 670, CE 520, 522, 550, 552; ECON 690.

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 of the public interest; and ethics in government.

502. Administrative Leadership (3)

Prerequisites: OCST 485 or equivalent. Concepts and techniques of personal and professional administrative leadership. Same course as OCST 502. Letter grade only (A-F).

505. Critical Analysis of Issues and Problems in Education and the Workplace (3)

Prerequisite: Must be qualified for admission to the MPA, MS in Emergency Services Administration, or MA in Occupational Studies program. In-depth analysis of major research reports and review of historical and contemporary issues and problems. Particular attention will be given to the various research methodologies used to examine issues and problems in the field. Same course as OCST 505. Letter grade only (A-F).

510. Public Administrative/Management Processes (3)

Analysis of public administrative/management processes from perspective of public executive, public finance and budgeting, public personnel systems, standards of efficiency and effectiveness in conduct of the public's business, and role and use of organizations and administrative processes to achieve public objectives.

512. Urban Executive Management (3)

Students will be provided an overview of the various types of problems confronting today's urban administrator and the possible means of solving some of these pressing problems. Subjects to be included are public policy in a changing society; new strategies for

managing local government; new frontiers in planning and controlling financial resources; the dynamics of personnel and labor relations.

514. Municipal Law for Administrators (3)

Examination of major laws and legal issues affecting local government today. Basic powers of cities including regulatory (police) powers, corporate (service) powers, taxation and eminent domain will be studied. Will develop problem solving abilities through legal analysis, and will explore new parameters and changing standards in litigious society looking for "deeper pockets," slower growth, and greater citizen involvement in local government. Selected areas of study will include the impact of recent U.S. Supreme Court cases on land use regulation; California Redevelopment Agency law; municipal tort liability and civil rights matters; public-private financial ventures and bond financing; city council meeting and hearing procedures; the "Brown Act", and public records; public works contracts and building code enforcement; and public labor law trends and developments. Same course as OCST 514. Letter grade only (A-F).

515. Administrative Report Writing (3)

Preparation of written documents required of public administrators.

517. Analytical Skills Development (3)

This course is designed to develop or improve the skills needed to perform analytical work in the public sector. There will be a dual emphasis wherein both quantitative and behavioral/ political aspects of analysis in government are explored. Cost-benefit analysis, and report preparation and presentation will be covered.

521. Microcomputer Management for Public Administrators (3)

A seminar for public administrators focusing on the design, development, and management of microcomputer systems and applications in public organizations. There is a dual emphasis in the course: analysis of critical concepts and issues relating to the management of micro-computer systems, and hands-on computer laboratory experience in the design, development and use of microcomputer applications.

522. Automating Government Administration (3)

An examination of the use of computers to assist government management, with special emphasis on automation of services such as finance, police and library departments. Will provide an introductory background in computers and their applications to government systems and files for non-computer specialists.

523. Urban Information Systems for Public Management (3)

The purpose of this course is to expose MPA students to the most significant information technologies impacting government management as we move to the 21st century: the World-Wide Web (Internet) and G.I.S. (Geographic Information Systems.) This course will introduce students to the tools and techniques used to construct Web pages and their appropriate usage. Students will also be exposed to the design, development and use of GIS in public organizations. This is a hands-on course which makes extensive use of computer technology, including Internet access to the World-Wide and e-mail.

524. GIS Management and Applications for Public Managers (3)

Geographic Information Systems (GIS) are rapidly becoming a keystone of government operations. Public managers are finding it increasingly important to understand not only what GIS can do but also how to use GIS applications to solve problems. This course will introduce students to the management and applications of GIS in the Public Sector. The class will cover the requirements for designing, developing and managing GIS applications for solving public sector problems. This course will also provide students with hands-on use of GIS for applications development in a computer lab environment as well as analysis of real-world GIS case studies. Letter grade only (A-F).

525. Non-Profit Management (3)

Examination of the history, principal characteristics, scope, and unique management challenges confronting the nonprofit sector in the United States. While the sector as a whole, in all its variety, will be addressed, particular attention is given to the traditional and important role of nonprofits in the delivery of health and human services. Letter grade only (A-F).

527. Productivity and Performance Measurement (3)

This course will identify and develop concepts of productivity and performance measurement for the government executive. Recent approaches to management of organizations will be examined to determine their relationship to productivity and performance measurement. Finally, management techniques and methods will be reviewed through case studies, guest speakers, and a workshop format to provide some knowledge of substantive approaches to the measurement of government outcomes. Letter grade only (A-F).

533. Race, Inequality and Public Policy (3)

There has been considerable political debate over the problems of income inequality and poverty in the U.S. and the inability of public policies to remedy this situation. The Los Angeles "riots" have renewed this debate. The purpose of this seminar is to critically examine this debate and guide students to an understanding of the multiple sources of inequality in American cities. Particular attention will be paid to ways in which race, ethnicity and gender play a role in structuring the urban environment in which inequality originates and operates. In this way, our discussion of racial inequality and social policy will serve as a springboard for a more elaborate and critical examination of the fundamental philosophical, political and socio-economic problems currently afflicting our post-industrial society.

535. Intergovernmental Relations (3)

This course will present fundamental concepts and issues of intergovernmental relations in the United States. Topics covered include history of the field, intergovernmental revenues and expenditures, state and federal legislative processes, legislative advocacy, interorganizational management, and current issues. Same course as OCST 535. 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.

542. Emergency Planning and Management (3)

Students will study 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. The public sector roles in contingency planning and response will be assessed. Same course as OCST 542. Letter grade only (A-F).

546. The Urban Crisis and the Public Administrator (3)

A 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. Extensive interface with urban agency representatives will be a major focus of this course.

547. Local Government Economic Development Processes (3)

A detailed discussion of the nature, goals and processes of locally based economic development programs. Definition of governmental incentives designed to maximize private investment. A thorough explanation of property-related revenues from both the public and private perspectives.

548. Housing Problems and the Urban Administrator (3)

An overview of housing problems in contemporary urban society. This course will increase the public administrator's awareness of the interrelationships between local government administration and housing problems, and facilitate the public administrator's ability to deal with these problems.

549. The Municipal Community Development Process (3)

Overview of the municipal community development process with particular emphasis on the integration of municipal planning, zoning, housing, social service, and redevelopment functions. The course will explore basic concepts of each function, their interrelationships and administrative practices. Emphasis will be given to the impact of federal community development block grants and the local process.

550. Urban Transportation Policy and Planning (3)

Examines the status of urban transportation activities and needs today and discusses the near and long-term options for the future. Analyzes local, state, federal policy and inter-governmental sys-

tem; Los Angeles urban transportation development, transit proposals and new policies and activities.

554. Public Works Facilities and Urban Policy (3)

Provides a study of public infrastructure essential to urban communities, and an analysis of urban policies and impacts from the perspective of the urban administrator. Students will examine infrastructure maintenance and expansion needs assessment, and intergovernmental financing with concentration on water and wastewater, transportation, solid waste, and public facilities, including schools.

555. Government Budgeting and Finance (3)

This course focuses on the formulation phase in the budget cycle. The course presents the major concepts and skills associated with budget preparation for all levels of government. Topics include: budget processes and structures, fundamental processes of public finance, economic growth and fiscal impacts, basic principles of government accounting, budget formats, performance measurement, fiscal condition and stress, revenue sources and structures, estimation and forecasting, capital budgeting and evaluating public projects, and fiscal federalism. Same course as OCST 555. Letter grade only (A-F).

560. Public Financial Management (3)

Public Financial Management (PPA 560) focuses on the execution phase of the budget cycle, and thus, completes the full budget cycle. The course presents the major concepts and skills associated with budget administration for all levels of government. Topics include cash management and investment administration, debt management, purchasing, risk management, financial and managerial accounting, financial reporting, and auditing. Letter grade only (A-F).

567. Basic Governmental (Fund) Accounting (3)

Provides a basic introduction to the unique characteristics of governmental and commercial accounting. Differences between governmental and commercial accounting are explained. Governmental accounting terminology basics and principles are discussed. Information is provided on the structure and types of funds and methods of classifying and recording accounting information. Types of financial reports and interpretation of financial statements are discussed. Particular emphasis is focused on the relationship between accounting and budgeting, financial reporting, auditing and other financial management activities for governmental and non-profit agencies.

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.

571. Leadership Skills and Strategies in the Public Sector (3)

Increasingly, urban governments are being criticized for a "lack of leadership" and an inability to move their bureaucracies toward solutions to complex problems. This course examines the theories of administrative leadership and the strategic application of leadership skills in an urban government environment. Students will also review current approaches to organizational excellence and its applicability to urban government leadership.

575. Public Sector Employer-Employee Relations (3)

Analysis of prevailing practices and techniques of collective bargaining and its continuing ramification on the economic, political and organization structure in the public sector. Emphasis is placed on a review of the entire employee relations field including the financial implications, costing techniques, impasse resolution including binding arbitration, job action and strike contingency planning, contract administration, worker compensation and public retirement systems. Instruction also provided on negotiation techniques through mock negotiation sessions.

577. Public Sector Human Resources Management (3)

The historical development of the civil service/merit system and how this impacts public personnel systems; laws which affect the operations of a personnel system; analysis of the various components of a personnel system; impact of labor negotiations on personnel systems; importance of written policies and procedures; and role of the personnel system as a change agent. Same course as OCST 577. Letter grade only (A-F).

581. Government/Community Relations (3)

An investigation of the inter-relationship between governments and community based organizations and the communities in which they operate and serve. Particular attention is paid to strategies and tactics used in diagnosing problems and opportunities and prescribing courses of action in such diverse areas as public safety, planning and community development, arts and culture and health, education and welfare. Elective for graduate students in Master of Public Policy and Administration. Letter grade only (A-F).

582. Citizen Advocacy and Public Policy Making (3)

An in-depth analysis of citizen involvement and how it impacts upon policy formulation and public administration. The course involves classroom input from community leaders, action groups, legislators, public administrators, with interaction by the student.

585. Public Policy and Administration Internship (3-12)

Prerequisite: Consent of the instructor. A learning experience designed to provide an 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 for 12 units. Academic credit earned for the Internship program is beyond the 36 units required for the MPA degree.

590. Special Topics in Public Policy and Administration (3)

An investigation of a special problem as defined by the instructor that is of current interest to the field of public policy and administration. Course may be repeated for a maximum of 9 units with different topics.

597. Directed Studies (1-3)

Prerequisite: Consent of instructor. Independent study in public policy and administration.

610. Seminar in Urban Affairs (3)

A broadly based interdisciplinary course which will give students an opportunity to develop expanded awareness of the interrelationships between various urban problems in the urban systemic environment.

650. Seminar on Issues in Contemporary Public Administration (3)

Survey of various issues and topics critical to effective public administration in the contemporary United States including the social and political context of contemporary public administration (e.g., increasing diversity of public demands of public agencies, increasing complexity of the intergovernmental network, etc.), responsibilities and obligations of public servants in contemporary governments and selected issues of public management.

651. Graduate Seminar (3)

Prerequisite: Enrollment in MS or MPA degree program. Study of selected topics in occupational education, including important legislation, industrial innovations, technical change, and contemporary problems. Topics will be announced in Schedule of Classes. May be repeated for a maximum of six units. Same course as OCST 650. Letter grade only (A-F).

660. Seminar in Organization Theory and Behavior (3)

Organizational change, effectiveness and allocation processes in public agencies. Theoretical models of open systems, rationalist, conflict, coalition and decision-making theories will be investigated with the aim of presenting a unified set of propositions about organizations. Leadership and small group theory.

670. Policy Issue Analysis (3)

This course introduces theories and approaches to policy analysis and a working knowledge of the skills involved in that practice. 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.

696. Research Methods in Public Administration (3)

Application of relevant research techniques to problems in public sector management and analysis. This course focuses on the design, development, and implementation of public sector research projects. The course is centered around the tools and

techniques of research and their application in the development of a formal research design. Topics covered include: theories of research strategy, research design development, hypothesis design and testing, qualitative and quantitative data acquisition methods, survey research, initial data analysis techniques, statistical analysis, research results reporting and presentation, and evaluation research applications. Note: It is suggested that students take PPA 696 early in their MPA program in order to accrue maximum benefit in subsequent courses.

697. Directed Research (1-3)

Prerequisites: Consent of Center graduate advisor, advancement to candidacy. The definition, presentation and discussion of selected problems in public administration.

PSYCHOLOGY

College of Liberal Arts

Department Chair

Keith R. Colman

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Robin L. Moore

Graduate Coordinator

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View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Psychology Department maintains an advising and admission office in PSY-206, (562) 985-5680, website <http://www.csulb.edu/~psych>, for undergraduate students. Advisors are available during the Fall and Spring semesters to assist students with admission, registration, and degree requirements, as well as information about graduate study. An undergraduate handbook is available for purchase or on-line at the department's website.

Students desiring graduate information should contact the department office for referral to the Graduate Coordinator.

Bachelor of Arts in Psychology

The number of applicants to the major in psychology exceeds the number that can be accommodated by the department's resources. For this reason the undergraduate psychology major has been designated as impacted by California State University.

Requirements for Admission to the Major for All Students

All applicants to the major must be able to demonstrate that they will meet the following requirements for admission:

1. Completion of a minimum of 56 semester units of degree credit, including all lower-division General Education requirements, with a cumulative GPA of at least 2.25; or 36 semester units of degree credit, including the entire General Education Foundation, with a cumulative GPA of 3.00.
2. Completion of the following prerequisite courses, each with a minimum grade of "C": PSY 100, 110, and 200.

Procedure for Admission to the Major

Freshmen students:

Freshman applicants to the Bachelor of Arts in Psychology will be placed in the pre-major code for psychology. Acceptance into the pre-major category does not imply or assure subsequent acceptance into the major.

Continuing students:

Continuing students (including transfer applicants who were not admitted to the university as psychology majors) seeking admission to the major in psychology must submit a supplemental application to the department by February 18 for the fall semester or by September 24 for the spring semester. Students with less than 60 units may be designated as pre-majors.

Transfer students:

Transfer applicants must apply to the University during the initial filing period of October and November for the following fall semester. They must indicate their choice of major on the application. Admission will be conditional based upon submission of evidence that the requirements noted above will be satisfied by the start of the first semester on campus.

Conditions for Remaining in the Major

Students provisionally admitted to the major on the basis of the requirements noted above must complete PSY 301 with a passing grade no later than the end of the first semester in the

major. Failure to do so will result in the student being dropped from the major. Continuing students are encouraged to take PSY 301 at the earliest opportunity. It is preferable not to wait until after admission to the major.

Note: Students may apply for admission to the psychology major no more than twice.

Bachelor of Arts in Psychology (code PSY_BA01) (120 units)

Students who graduate with a major in psychology should have current knowledge of:

1. the major theories in psychology and their influences across subfields and time.
2. the major methodologies of psychological research and fundamental statistical concepts.
3. the biological processes underlying behavior.
4. sensation, perception, information processing and retention.
5. how behaviors develop and change throughout the life span.
6. how internal, environmental, and social factors influence behavior.
7. individual differences in behavior, including those related to gender, ethnicity, and culture.
8. different perspectives on the origin and treatment of abnormal behavior.
9. ethical issues in teaching, research, and the practice of professional psychology.

In the course of learning the above, students are expected to graduate with the ability to:

1. design and implement research, analyze data appropriately and judge the significance of findings.
2. critically evaluate psychological research as well as popular notions of human nature.
3. use the primary literature of the field and prepare a clear, organized summary of a topic.
4. use computers for the preparation of manuscripts, the analysis of data, and communication.
5. understand and work effectively with a diversity of individuals and groups.
6. apply theory and research to contemporary problems.
7. maintain currency in the field and utilize that knowledge in their lives.

The psychology curriculum is designed to provide undergraduate students with a broad background in the principles of Psychology.

Requirements

Lower Division: (14 units) PSY 100, 110, 141, 200.

Upper Division:

1. 3 units – PSY 301;
2. 6 units – two courses from PSY 331, 332, 333, 336, 340 or 341 or 342;
3. 6 units – two courses from PSY 351, 356, 361 or 365;
4. 6 units – two courses (not from the same group):
 - a. PSY 352, 354, 366, 370;
 - b. PSY 310, 314, 315, 359;
 - c. PSY 339I, 346I, 373, 375I, 378, 381;

5. 6 units – 400-level PSY courses. No more than 3 units from 405, 406A, or 406B may be counted in this category. PSY 499 cannot be counted to satisfy this requirement;
6. 6 units – any upper division psychology courses not used to satisfy the requirement of sections 2 through 5;
7. 6 units – upper division units in American Indian Studies, American Studies, Asian and Asian American Studies, Anthropology, Black Studies, Chicano and Latino Studies, Economics, Educational Psychology, Geography, History, Human Development, Political Science, Social Work, Sociology, Women's Studies. At least 3 of the units must have an emphasis in contemporary U.S. ethnic studies. A list of acceptable ethnic studies courses may be obtained from the Psychology Advising Office in PSY 206.

Students are advised to consult with the Psychology Advising Office for course choices most relevant to their individual goals.

Honors in Psychology

Admission Requirements

1. Admitted to the major.
2. A 3.5 GPA in all Psychology courses.
3. At least a 3.25 overall GPA.
4. Letter of support from a psychology faculty member agreeing to serve as Honors Thesis Chair.
5. Submit honors application to the Psychology Honors Advisory Committee.

Requirements

1. Complete all regular requirements for the psychology major.
2. Complete the following: PSY 310 (4 units), 490H (3 units), 496H (3 units), 498H (3 units).
3. Complete 3 units in any other 400-level psychology course exclusive of PSY 405, 406, or 499.

Minor in Psychology (code PSY_UM01)

The Minor in Psychology is available to any non-Psychology or non-Liberal Studies major.

A minimum of 23 units which must include: PSY 100, 110, 141, and 200, nine upper division psychology units including at least one course from PSY 331, 332, 333, 336, 341, or 342; and at least one course from PSY 351, 356, 361, or 365; and one elective.

Graduate Programs

Students desiring graduate information should contact the department office for referral to the Graduate Coordinator, or view information on the department web site at <http://www.csulb.edu/~psych>.

The department of Psychology offers graduate study leading to the Master of Science in Psychology (community clinical) and the Master of Arts degree with options in (1) Research or (2) Industrial and Organizational psychology. In each program a basic core, including a thesis, is required. There is opportunity for additional work in areas of special interest. The Master of Arts Research option program prepares students for doctoral study and provides a general background in psychology. Clinical electives are available in the Master of Arts Research option program. A Human Factors concentration prepares students for careers in applied experimental psychology. The Master of Arts Industrial and Organizational option prepares students for pri-

marily professional work; although some graduates have continued graduate study in doctoral programs. Admission to both programs is limited.

The Department has wide and varied course offerings and is housed in specially-designed facilities, including computer labs and laboratories in physiological, social-personality, human factors and other areas of psychology.

Admission to Graduate Programs

An application for admission may be obtained on the Psychology department web site (www.csulb.edu/~psych) or by writing directly to the Psychology Graduate Office. Acceptance by the department is contingent on (a) GPA based on last 60 semester units available at time of application; (b) Graduate Record Examination (GRE) scores on the verbal and quantitative sections; and (c) three letters of recommendation. For entry in the fall semester, all application materials, including complete transcripts, GRE scores and letters of recommendation, must be received by the department Graduate Coordinator by March 1 for both the Master of Arts Research option and Master of Arts Industrial and Organizational option.

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 Equity Fellowship (GEF). One student from each Master of Arts program's entering class will be awarded a J. Robert Newman Scholarship.

Master of Arts in Psychology

Option in General Research (code PSY_MA01)

This 30-unit degree program provides graduate psychology training for further study leading toward a doctorate and careers requiring masters level training. Core courses include quantitative and research methods and courses in the basic content areas of Psychology. Students from our program who later enter doctoral programs consistently inform us that they find themselves very well prepared for doctoral study as compared to other students.

Prerequisites

1. A bachelor's degree with a major in psychology that includes:
 - A. two courses from the following (not from the same group):
 - a. PSY 331, 332, 333
 - b. PSY 336
 - c. PSY 340, 341, 342
 - B. one of the following: PSY 351; 356; 361; 365
 - C. PSY 310 or
2. 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. two courses from the following (not from the same group):

a. PSY 331, 332, 333

b. PSY 336

c. PSY 340, 341, 342

B. one of the following: PSY 351; 356; 361; 365

C. PSY 310

3. Six units of college level work in chemistry, physics, biology or mathematics as approved by the graduate coordinator. No more than three of the six units may be in approved mathematics courses.

Advancement to Candidacy

Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students. Advancement to Candidacy also signifies approval of a plan of study by the graduate student's major, 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 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Arts, Research option degree.
4. Satisfactory completion of the CSULB Writing Proficiency Examination (WPE). Information is available in the Testing Office (BH-216). This requirement can also be met by evidence that the student passed the WPE while an undergraduate at CSULB or at certain CSU campuses.
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

1. The student must complete, as a graduate student, 30 units of graduate coursework (500-699), 24 of which must be in Psychology (not including PSY 697) including:
 - a. either PSY 511 or 512 if 411 or 412 or equivalent not taken as an undergraduate;
 - b. one course chosen from PSY 518, 527, 533, 541, 551, 556, or 582, if corresponding 400-level course or equivalent not taken as an undergraduate;
 - c. PSY 696 (comprehensive exam required);
 - d. one course chosen from PSY 631, 632, 634, or 637 (with comprehensive exam); one course chosen from PSY 651, 656, or 661 (with comprehensive exam); and one additional course chosen from either group; PSY 698 (6 units).
2. With the graduate coordinator's approval a maximum of six units from related areas may be used for six of the 30 units.
3. Attendance at 12 Department Colloquia, six of which must be completed prior to preliminary oral examination, all 12 must be completed prior to final oral examination.
4. Completion of all requirements as established by the M.A. 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.

Option in Industrial and Organizational Psychology (code PSY_MA02)

Students admitted to this 30-unit program prepare for business and industrial positions including personnel selection and organizational development, employee training, applicant and employee testing, etc. Graduates usually go directly into business and industry, through some enter Ph.D. programs.

Prerequisites

1. A bachelor's degree with a major in psychology or 24 upper division units of psychology.
2. PSY 200, 310, 314 or 315, 332 or 333 and 351 or 453/553. Students may be admitted to the MAIO 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 315 AND 351 or 453/553 must be completed prior to MAIO program entry, as they are prerequisites for the first semester MAIO program coursework. Students missing more than one prerequisite course at the time of application may be offered provisional admission if they submit an approved plan to take the missing courses prior to admission to the program.

Advancement to Candidacy

Advancement to Candidacy is the next step after achieving classified status and confers catalog rights to graduate students. Advancement to Candidacy also signifies approval of a plan of study by the graduate student's major, 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 698 (Thesis).
2. Classified status.
3. An approved program of studies for the Master of Arts, Industrial and Organizational option degree.
4. Satisfactory completion of the CSULB Writing Proficiency Examination (WPE). Information is available in the Testing Office (BH-216). This requirement can also be met by evidence that the student passed the WPE while an undergraduate at CSULB or at certain CSU campuses.
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

1. The student must complete a minimum of 30 units of graduate course work. The following courses are required: PSY 581, 585, either 511 or 512, one course chosen from 515 or 582 or 696, 590 (Special Topics, subject to Graduate Coordinator approval), 681, 683, 686, 688 and 698.
2. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis.
3. Students with credit in 411 or 412 as undergraduates may petition the MAIO Program Committee to substitute a maximum of 3 units from related areas towards the 30 unit program.

Master of Science in Psychology (code PSY_MS01)

The MS Program in Psychology has been indefinitely suspended and is currently not accepting applications nor admitting students. For those seeking MFT licensure, it is suggested

they contact the Educational Psychology and Administration Department.

The Master of Science in Psychology degree program covers a broad spectrum of theory and skills in the areas of community and clinical psychology and is specifically designed to meet California State requirements for Marriage, Family and Child Counseling licensure. The program provides training in a wide range of professional skills, including prevention of mental health problems, promotion of social competence, empowerment of disadvantaged groups, and development of counseling and psychotherapy skills.

Prerequisites

1. A bachelor's degree with a major in psychology or a major in a related field and 25 units of upper division psychology.
2. PSY 310; 314 or 315; 332 or 333 (or course in Behavioral Modification); 354; 319 or any upperdivision survey course; 370; a developmental psychology course; and 373.
3. Written application which is designed to screen applicants for skill and interest match with the overall program including a statement of goals and past experience in the field.
4. A personal interview conducted by a selection committee.

Advancement to Candidacy

Prerequisites

1. Classified status.
2. An approved program of studies for the Master of Science in Psychology degree.
3. Satisfactory completion of the CSULB Writing Proficiency Examination. Information is available in the Testing Office (BH 216). This requirement can also be met by evidence that the student passed the WPE while an undergraduate at CSULB or at certain CSU campuses.
4. A minimum 3.0 overall GPA and a 3.0 GPA in all units undertaken for the program (at least 6 units).
5. Be enrolled in regular session.
6. Application for Advancement to Candidacy must be done prior to or concurrent with enrollment in PSY 698, Thesis.

Requirements

1. The program is a 55-unit Master's degree. The following courses are required: PSY 661, 575, 698.
2. A preliminary oral examination on the thesis proposal and a final oral examination in defense of the completed thesis.

Courses (PSY)

All courses in this department are Letter grade only (A-F) unless otherwise stated.

Lower Division

100. General Psychology (3)

Prerequisites: Completion/concurrent enrollment in ENGL 100 or equivalent. Introduction to the scientific study of human behavior. Designed to provide the student with a basic background for further study and for practical application in everyday life. (CAN PSY 2)

110. Introductory Statistics (4)

Prerequisites: PSY 100, ENGL 100, and eligible to take a General Education Mathematics course. Calculation and meaning of statistical measures. Descriptive and inferential statistics. Not open to students with credit in PSY 210. (Lecture 3 hours, laboratory 2 hours.)

130. Critical Thinking (3)

Prerequisite: Completion/concurrent enrollment in ENGL 100 or equivalent. 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. Not Open to students with credit in PSY 230.

141. Psychobiology (3)

Prerequisites: PSY 100 and ENGL 100 or equivalent. 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 to students with credit in PSY 241.

150. Personality and Social Behavior (3)

Prerequisite: One of the Foundation courses (may be taken concurrently). 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.

200. Research Methods (4)

Prerequisites: PSY 100, PSY 110 or equivalent and ENGL 100 or equivalent. Introduction to basic research methods in Psychology. Principles of experimentation, naturalistic observation, correlational studies. (Lecture 3 hours, laboratory and field 3 hours.)

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.

300I. Mind Control or Freedom (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. How people control others using informational, manipulative and coercive approaches. Consideration of basic processes of persuasion, coercive persuasion and coercive control; 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, etc.

301. Introduction to Psychology as a Discipline and Profession (3)

Prerequisite: PSY 100. The course will cover the value of psychology as a field of study including its application for the BA student as well as those seeking advanced degrees. Careers and preparation for graduate work will be stressed. In addition, key ethical considerations will be discussed, as well as contemporary controversies within the field.

310. Intermediate Statistics (4)

Prerequisite: PSY 110 or introductory statistics course. Basic theoretical concepts of statistics and the use of these concepts in the 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 110 and 200. 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 110 or one statistics course. 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.

331. Sensation and Perception (3)

Prerequisites: PSY 141 and 200. Basic phenomena of the senses, their physiological correlates and integration in complex perceptual judgments.

332. Cognition (3)

Prerequisites: PSY 141 and 200. 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 141 and 200. Human and animal learning with special emphasis on experimental evidence and techniques.

336. Psychology of Emotion (3)

Prerequisites: PSY 141 and 200. Discussion of research, theories and coping mechanisms of human emotions.

339I. Psychology of Sport Behavior and Athletic Performance (3)

Prerequisites: Completion of the GE Foundation, PSY 100 and upper division standing. Psychological dimensions of attitudes, behaviors, and performance in sport and exercise environments. Same course as KPE 339I.

340. Physiology of Behavior (3)

Prerequisite: PSY 141 and 200. An in-depth examination of central nervous system (CNS) components that underlie the major elements of our behavioral capabilities. Topics include the major structural and functional features of the neuron and of selected systems that are representative of the sensory, integrative, and motor capabilities of the CNS.

341. Neuropsychology (3)

Prerequisite: PSY 141 and 200. Neurological correlates of behavior with special emphasis upon central nervous system structure and function. Experimental evidence on which neuropsychological theories of behavior are based.

342. Psychopharmacology (3)

Prerequisites: PSY 141 and 200. This course offers a broad introduction to the effects of various medications on the central nervous system and behavior. This includes neurotransmitter functions, physiological and biochemical mechanisms of drug action with emphasis on the effect of psychiatric medications, common "street drugs" and those sold over the counter; their potential for abuse is also considered.

346I. Human Sociobiology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, 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.

350I. Psychology and Contemporary Social Issues (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Application of social psychological principles toward understanding major contemporary social issues.

351. Social Psychology (3)

Prerequisites: Completion of the GE Foundation and PSY 100. Study of individuals and groups as they are affected by social interactions. Includes such topics as social cognition and learning, attitudes and persuasion, social influence (conformity, obedience), interpersonal perception and attraction (liking and loving), anti- and pro- social behavior (aggression, violence, altruism), cooperation and competition, leadership, group dynamics, sexual behavior. Not open to students in SOC 335I.

352. Psychology of Male Roles (3)

Prerequisite: PSY 100. Exploration of male roles as they affect interactions between men and men, men and women, and men and children, as well as interactions related to work and play. Course is designed to enhance personal understanding through an examination of theory, research and experience.

354. Psychology of Women (3)

Prerequisite: PSY 100. Psychology of sexism; the biological and social determinants of the psychology of women. Open to all qualified men and women students.

356. Personality (3)

Prerequisites: Completion of the GE Foundation and PSY 100. Discussion of theories, research and assessment in personality.

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)

Prerequisites: Completion of the GE Foundation and PSY 100. Theoretical and methodological approaches in the study of 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. Topical coverage includes physical-motor, social, physiological, and cognitive aspects of development.

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-motoric, social, physiological and intellectual aspects of behavioral functioning.

366. Fathers and Fathering: A Psychosocial View (3)

(This course is for both women and men.) Prerequisites: PSY 100, SOC 100 or FCS 111. An overview of the psychological literature on parenting with emphasis on fathers/fathering in the U.S. Focus on current literature and research regarding the perceived and changing roles of fathers, including ethnic fathers, in an effort to diminish stereotypes. Same course as FCS 358.

368. Asian American Personality and Mental Health (3)

Prerequisites: Completion of PSY 100 and upper division standing. A survey of psychological issues facing Asian Americans, including the historical, sociopolitical, and cultural influences that shape personality and mental health of individuals in the diverse population group.

370. Abnormal Psychology (3)

Prerequisites: Completion of the GE Foundation and PSY 100. An overview of abnormal behavior as a portion of the continuum of human behavior. The course will cover the field's historical approaches, the range of psychological disorders, as well as the biological, psychological, social consequences, and treatment.

373. Introduction to Clinical Psychology (3)

Prerequisite: PSY 370. Survey of the field of clinical psychology including an introduction to its history, diagnostic procedures, therapeutic process, clinical training, research approaches, and ethical issues.

375I. Community Psychology (3)

Prerequisites: Completion of the GE Foundation, PSY 100, and upper division standing. Basic concepts and skills of community psychology, including community assessment, community intervention, program evaluation, and social policy analysis, relationships between social systems and individual behavior. Emphasis on economically disadvantaged, minorities, women, youth, and the aged.

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.

381. The Psychology of Work Behavior (3)

Prerequisite: PSY 100. Problems and procedures in industrial psychology. Consideration of job analysis, personnel selection and appraisal, organizational and social context of human work, physical environment and consumer behavior.

382. Introduction to Cognitive Science (3)

Prerequisites: Completion of all Foundation courses; 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, differ-

ent methodologies and theoretical contributions of its constitutive disciplines. Same course as PHIL 482.

390. Special Topics in Psychology (3)

Prerequisite: Consent of instructor. Topics of current interest in psychology selected for intensive development. May be repeated with different topics to a maximum of nine units, but no more than six units may be used to satisfy requirements of the major.

NOTE: 400-level courses open to Psychology majors and minors who have successfully completed PSY 301.

401./501. History of Psychology (3)

Prerequisite: Six upper division units in psychology. The historical background and development of psychology as a science. Contributions of major individuals and systems.

405. Field Work in Psychology (3)

Prerequisites: Psychology major, junior or senior standing (3.0 GPA), PSY 200, 110, 12 upper division units in psychology, letters of recommendation, consent of instructor. Student works under the supervision of, or in association with, a professional having an advanced degree in a psychological discipline and who is engaged in the practice of some aspect of psychology in the surrounding community. Placements include schools, hospitals, clinics, and community mental health agencies. Nine hours of field work per week for a minimum of 13 weeks. May be repeated to a total of six units. Credit/No Credit grading only.

406A,B. Applications of Psychology (3)

Prerequisite: Consent of instructor. Students are expected to take both 406A and 406B. Students apply for 406A-B during the semester before the courses are taken. 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.

407./507. Introduction to Family Therapy (3)

Prerequisites: PSY 200, 373, 475 or consent of the instructor. Survey of the field of family therapy including origins of differences in family structure, historical development of family therapy theory and practice.

411./511. Statistical Design and Analysis of Experiments (3)

Prerequisite: PSY 310 or 412 or consent of instructor. Simple and complex designs. Statistical inference in economical experimentation and in scientific inference and prediction.

412./512. Multivariate Statistical Analysis (3)

Prerequisite: PSY 310 or 411 or consent of instructor. Accuracy and cost of inference from multiple variables. Theoretical implications of inferred structures. Applications.

418./518. 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 hours, laboratory 2 hours.)

427./527. Human Factors (3)

Prerequisites: PSY 310 and two of the following: PSY 331, 332 or 333. Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of a 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: PSY 200, 310, and 331 or 332 or 333. Research methods in cognition, learning, and perception. Laboratory includes experiments on selected topics. (Lecture 2 hours, laboratory 3 hours.)

436./536. Psychology of Mood (3)

Prerequisites: PSY 100, 200, 310, or permission 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. Self-applications for purposes of mood regulation also will be covered.

438./538. Psycholinguistics (3)

Prerequisites: Six units of linguistics or upper division psychology. Psychological and linguistic approaches to the study of language. Theory and research in the production and understanding of language, language acquisition, memory for language, and use of language in its social context.

439./539. Language Acquisition (3)

Prerequisites: Six units of linguistics or upper division psychology, or consent of instructor. Theory and research on the acquisition of first and second languages in children and adults. Psycholinguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The interacting roles of developmental stages, cognitive processes, individual differences, social influences, and the cultural context will be stressed. (Seminar)

441./541. Research in Physiological Psychology (3)

Prerequisites: PSY 200, 310, and 341. Research methods in psychology. Includes fundamentals of neuroanatomy, surgical procedures for stimulation, lesioning and recording, and pharmacological procedures used in neuropsychological research. (Lecture 2 hours, laboratory 3 hours.)

444./544. Cognitive Neuroscience (3)

Prerequisites: PSY 332 and one of the following: PSY 340, 341, or 342. Explores brain systems responsible for cognitive processes in normal humans, integrating theory from texts and current research from original sources.

451./551. Research in Social Psychology (3)

Prerequisites: PSY 200, 310, 351, or consent of instructor. Research methods and problems in social psychology. (Lecture 2 hrs, lab 3 hrs)

453./553. Principles of Group Dynamics (3)

Prerequisite: PSY 110, 200, 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.

456./556. Research in Personality (3)

Prerequisites: PSY 200, 310, 356, or consent of instructor. Research methods and problems in personality. (Lecture 2 hrs, laboratory 3 hrs.)

457. Psychology of Sexuality (3)

Prerequisites: PSY 351 or 356 or 370, and Psychology Major with senior class standing. 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.

458. Current Issues in Personality (3)

Prerequisites: PSY 200 and 356. Current theoretical, philosophical and methodological issues in personality. Coverage may include the person-situation interaction, the role of genetics, aggression, altruism, stress/coping, and gender differences.

463. Social and Personality Development (3)

Prerequisites: PSY 361. The development of social behavior and personality in children and adults. Coverage will include theoretical approaches and processes as well as content areas, such as the development of aggression, morality, prosocial behavior, peer relations, and sex differences.

475./575. Clinical Interviewing (3)

Prerequisites: Permission of instructor, PSY 314. Study and development of the clinical techniques of observation and the interview.

477. Psychology of Addiction (3)

Prerequisites: PSY 110, 200, and 6 upper division units. An 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. Advanced Topics in Psychology (3)

Prerequisite: 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, physi-

ological, social, personality or developmental. May be repeated with different topics to a maximum of nine units. See *Schedule of Classes* for subjects being offered during a given semester.

A. Applied Social Psychology**490H. Special Topics – Honors (3)**

Prerequisite: Permission of the Psychology Honors Program Advisory Committee. Advanced study of selected topics in psychology. Topics to be announced in the *Schedule of Classes*. Course may be repeated to a maximum of 6 units with different topics. Letter grade only (A-F). Course may be repeated to a maximum of 6 units with different topics.

495. Ethical and Legal Issues in Psychology (3)

Prerequisites: PSY 200, PSY 370, and six upper division psychology units. Ethical principles in human and animal research and in applied areas of psychology. Emerging legal issues in the fields of forensic psychology, behavior modification, criminal justice, and clinical practice will be discussed. Letter grade only (A-F).

496H. Research Preparation – Honors (3)

Prerequisite: Permission of the Psychology Honors Program Advisory Committee. Development of a senior honors thesis proposal. Letter grade only (A-F).

498H. Senior Thesis – Honors (3)

Prerequisites: PSY 310, 490H, 496H, and permission 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)

Prerequisite: Consent of department. Student will conduct independent laboratory or library research and write a report of the research. May be repeated for a maximum of 6 units.

Graduate Level**501./401. History of Psychology (3)**

Prerequisite: Six upper division units in psychology. The historical background and development of psychology as a science. Contributions of major individuals and systems. Letter grade only (A-F).

507./407. Introduction to Family Therapy (3)

Prerequisites: PSY 200, 373, 475 or consent of the 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./411. Statistical Design and Analysis of Experiments (3)

Prerequisite: PSY 310 or 412/512 or consent of instructor. Simple and complex designs. Statistical inference in economical experimentation and in scientific inference and prediction. (Lec 3 hours.) Letter grade only (A-F).

512./412. Multivariate Statistical Analysis (3)

Prerequisite: PSY 310 or 411/511 or consent of instructor. Accuracy and cost of inference from multiple predictors. Discovering structural relationships among multiple variables. Theoretical implications of inferred structures. Applications. (Lecture 3 hours.) Letter grade only (A-F).

515. Test Construction Theory and Practice (3)

Prerequisites: PSY 314 or 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: C/ST 200 or equivalent; 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 2 hrs.) Letter grade only (A-F).

527./427. Human Factors (3)

Prerequisites: PSY 310 and two of the following: PSY 331, 332 or 333. Systematic application of psychological principles to the design of person-machine systems. Emphasis in the laboratory on the development of skills required of a human factors psychologist.

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 200, 310, and 331 or 332 or 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, 200, 310, or permission 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. Self-applications for purposes of mood regulation also will be covered.

538./438. Psycholinguistics (3)

Prerequisites: Six units of linguistics or upper division psychology. Psychological and linguistic approaches to study of language. Comparison of human language with communication in lower animals. Language development, disorders, symbolism and universals. (Lecture 3 hours.) Letter grade only (A-F).

539./439. Language Acquisition (3)

Prerequisites: Six units of linguistics or upper division psychology, or consent of instructor. Theory and research on the acquisition of first and second languages in children and adults. Psycholinguistic perspectives on the development of phonological, syntactic, semantic, and pragmatic aspects of language. The interacting roles of developmental stages, cognitive processes, individual differences, social influences, and the cultural context will be stressed. (Seminar.) Letter grade only (A-F).

541./441. Research in Physiological Psychology (3)

Prerequisites: PSY 200, 310, and 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, 341, or 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 200, 310, 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, 200, 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 200, 310, 356, or consent of instructor. Research methods and problems in personality. (Lecture 2 hours, laboratory 3 hours.) Letter grade only (A-F).

575./475. Clinical Interviewing (3)

Prerequisites: PSY 314 or 315. Permission of Instructor. Study and development of the clinical techniques of observation and the interview. Letter grade only (A-F).

581. Organizational Psychology (3)

Prerequisites: PSY 351 or 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 200 and 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 315. Advanced consideration of problems and procedures in personnel psychology. Includes both differentiation and synthesis of major areas within this field. Not open to students with credit in PSY 586. Letter grade only (A-F).

590. Advanced Topics in Psychology (1-3)

Prerequisites: Consent of instructor. Topics of current interest in psychology selected for intensive development. May be repeated (with selection of different topics) for a maximum of six units. Topics will be announced in the *Schedule of Classes*. Letter grade only (A-F).

A. Large Group Intervention

B. SPSS-Data Analysis

C. Levels of Analysis

D. Introduction to Time Series Analyses

E. SAS (Statistical Analysis System)

F. Designing Effective Teams

G. Issues in Compensation

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).

631. Seminar in Perception and Physiological Psychology (3)

Prerequisite: PSY 331 or 340 or 341 or 342 or consent of instructor, consent of graduate coordinator. 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 coordinator. Advanced consideration of selected topics in learning. Letter grade only (A-F).

633. Seminar in Perception and Attention (3)

Prerequisites: PSY 331 or 332 or consent of instructor. An 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 333 or 332 or consent of instructor, consent of graduate coordinator. An examination of method, theory and experimental evidence in selected topics from the area of cognition. Letter grade only (A-F).

637. Seminar in Emotion and Motivation (3)

Prerequisites: PSY 336 or consent of instructor, consent of graduate coordinator. 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 coordinator. 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 coordinator. 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 coordinator. 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).

681. Seminar in Applications of Psychology to Industry (3)

Prerequisites: At least 12 units of graduate-level work within the MA/IO program including 511 or 512 and 582. Psychological applications to current problems of industry. Development of thesis proposal and pretest of thesis research techniques required. Letter grade only (A-F).

683. Issues of Organizational Development (3)

Prerequisites: PSY 581. An examination of the theory, research, techniques, and practices in the field of organizational development, the professional practice of managing change in organizations. The organizational development steps of diagnosis, contracting, data collection, intervention, and evaluation will be covered. Techniques, such as team building, systems analysis, process consultation, large-group interventions and survey feedback will be examined. Special attention will be paid to challenges of organizational development in diverse and international organizations. Letter grade only (A-F).

686. Issues in Training (3)

Prerequisites: PSY 332 or 333, and 585. This course is designed to provide students enrolled in the MA/IO program with advanced training in the area of training and development programs for organizations. The course will cover issues in the adult learning environment, needs assessment, training design and implementation, evaluation of training, executive and management development, special issues in training, and the learning organization. As the intent of the course is to prepare students to be competent developers and presenters of training programs, a major focus will be placed on providing students with experiential skill practice in the areas of needs assessment, design, and implementation. Letter grade only (A-F).

688. Practicum in Industrial and Organizational Psychology (2)

Prerequisites: At least 12 units of graduate-level coursework within the MA/IO program. Practice of industrial psychology or human factors in various industrial settings. Individual research and consultation with industrial or governmental organizations. Letter grade only (A-F).

696. Research Methods (3)

Prerequisites: PSY 411/511 or 412/512, consent of graduate coordinator. The nature and function of research in the behavioral sciences. Experimental, correlational and case study methods. Research design and analysis using multiple linear regression model, general probability models and Bayesian inference. This course is offered particularly for Master of Arts students and includes the required comprehensive examination for MA Research students. Letter grade only (A-F).

697. Directed Research (1-3)

Prerequisites: Consent of graduate coordinator 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 advisor. MA/IO students: PSY 681 as prerequisite or corequisite. Planning, preparation, and completion of a thesis in psychology. Must be repeated for a total of six units of credit.

PHYSICAL THERAPY

College of Health and Human Services

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Master of Physical Therapy (code PT__MT01)

The Master of Physical Therapy program is designed to provide entry-level professional preparation in physical therapy consistent with national trends. The proposed curriculum consists of 60 units of didactic course work followed by 12 units of post-graduate clinical internship for licensure to practice physical therapy in the State of California. The professional course work is preceded by appropriate prerequisite courses at the undergraduate level. This program will provide an opportunity for the student with a baccalaureate degree in physical therapy or in a related field of study, or who currently holds a license to practice physical therapy, to pursue a professional masters degree in physical therapy (not an advanced clinical speciality degree). Graduates will be prepared to assume responsible clinical administrative and consultative roles in a broad spectrum of physical therapy practice settings; and be responsive to changing expectations, the expanding body of knowledge, and the physical therapy practice environment.

Requirements

The Master of Physical Therapy program requires completion of all prerequisite and professional course work described in the following:

Program Prerequisites

Natural Sciences: CHEM 111A, 111B, 327, PHYS 100A, 100B

Biological Sciences: BIOL 208, 211A, 211B, 341, 441, HHS 401, 402, 460, 471

Biostatistics: BIOL 260 (or equivalent)

Behavioral Sciences: PSY 100, HHS 374

(Note: Computer literacy is expected.)

MPT Core Requirements

Core: PT 501, 502, 503, 505, 506, 507, 508, 509, 510, 511, 512, 513, 522, 523, 524, 604, 605, 606, 607, 696, 697, OR 698

Electives: 610-619

Postgraduate Internship Certification (code PT__CT01)

Requirements

P T 525 (must be completed to be eligible to take the state examination for licensure)

Admission to the Master of Physical Therapy Program

The physical therapy masters program is open to all college graduates with a Bachelor of Science degree in Physical Therapy, or other disciplines, who have met prerequisite requirements and demonstrate academic promise and the ability to perform at a satisfactory level during their graduate studies.

To be considered for acceptance into the graduate program, the applicant must:

1. Complete all prerequisite courses with a minimum of "C" (students admitted to graduate status must maintain a minimum 3.0 overall grade point average in all upper division prerequisite coursework);
2. Hold, or be eligible to hold, an acceptable baccalaureate degree from an institution accredited by a regional accredi-

ing association or have completed equivalent academic preparation as determined by an appropriate campus authority;

3. Have attained a grade point average of at least 2.5 (A=4.0) in the last 60 semester (90 quarter) units attempted;
 4. Submit results of the General Aptitude Section of the Graduate Record Examination (quantitative, verbal, and analytical), taken within the past 5 years;
 5. Provide academic and personal references as required;
 6. Provide documentation of personal experience in a variety of physical therapy settings; and
 7. Be recommended by the physical therapy faculty.
8. All candidates whose preparatory education was principally in a language other than English must demonstrate competency in English. Refer to the CSULB Bulletin for requirements for completing the Test of English as a Foreign Language (TOEFL).

The master's degree program is a 60-unit, four semester full-time course of study. Graduates who have not met licensure eligibility requirements or who do not hold a valid physical therapy license (have not completed the BS degree in physical therapy) will be required to take a post-graduate internship (12 units). The course of study is most appropriate for graduates with degrees in related fields but does not exclude the person holding a baccalaureate degree in physical therapy. For graduates holding the BS degree in physical therapy, courses may be petitioned for the purpose of waving them providing a similar or like course has been completed which meets licensure standards. The emphases in the curriculum is to prepare graduates who desire to practice in a variety of clinical settings, e.g., private practice, acute care, rehabilitation, home health and extended care.

Advancement to Candidacy Requirements

1. Classified graduate student status.
2. Satisfactory completion of the CSULB Writing Proficiency Examination.
3. A minimum 3.0 overall grade point average in all program graduate work.
4. Be recommended by the faculty to take the comprehensive examination.
5. Enrollment in regular session.

Requirements for Admittance to Clinical Practice

1. Complete all requirements for the master's at the time of application to clinical practice.
2. Successfully complete either (a) a research thesis or project (PT 698) or (b) directed studies (PT 697) under the guidance of a faculty advisor.
3. If choice b (above) is selected (PT 697) the student must also successfully complete a program comprehensive examination.

Courses (P T)

Upper Division

485. Clinical Practice III (6)

Prerequisites: Completion of all professional courses with a minimum passing grade of 2.0 (C) and consent of instructor. Supervised clinical experience (internship) in designing, implementing and managing a physical therapy plan of care in a variety of clinical settings for 18-40 hour weeks. Course fee required.

Graduate Level

501. Musculoskeletal and Biomechanical Principles I (3)

Prerequisites: HHS 401, admittance to MPT program or consent of instructor. Advanced study of tissue (bone, muscle, dense fibrous connective tissue, cartilage, nerve) and joint mechanics and pathomechanics including use, disuse, aging, with application to therapeutic procedures and posture and movement of the upper limb. (Lecture/discussion 2 hours, laboratory 3 hours.)

502. Musculoskeletal and Biomechanical Principles II (3)

Prerequisites: PT 501 and consent of instructor. Continuation of the investigation and analysis of the biomechanics and the principles of motion analysis. Includes applied mechanics, pathomechanics, investigation of regional pathomechanics of the trunk and lower limb with emphasis on gait and muscle strength testing. (Lecture/discussion 2 hours, laboratory 3 hours.)

503. Management of the Musculoskeletal System I (3)

Prerequisites: PT 501, 502, 504 (concurrent), 505 and consent of instructor. The elements of patient/client management of musculoskeletal disorders provided by physical therapists—examination (history, systems review, tests and measures), evaluation, diagnosis, prognosis, and intervention (with anticipated goals) including reexamination, outcomes, and criteria for discharge. Also includes primary prevention/risk factor reduction strategies for specific diagnostic groups, the use of prosected materials and selected lectures by medical and physical therapy clinicians. (Lecture/discussion 2 hours, laboratory 3 hours.)

504. Evaluation and Management of Musculoskeletal System II (4)

Prerequisites: PT 501, 502 and 503 (concurrent), and consent of instructor. The investigation of disorders of the musculoskeletal system including exercise prescription, strengthening regimens, exercise testing, effects of disuse, life sequence, wellness and prevention, and the theories of pain and pain management and selected preferred practice patterns provided by physical therapists. (Lecture/discussion 3 hours, laboratory 3 hours.)

505. Management of Human Growth and Development (2)

Prerequisites: HHS 401, 460 and consent of instructor. Investigation and analysis of human development from birth to senescence with emphasis on concepts of motor, skeletal and neurological development processes necessary to prepare for evaluation and treatment intervention in musculoskeletal and neurological disabilities. (Lecture/discussion 1 hour, lab 3 hours.)

506. Exercise Physiology for Physical Therapy (2)

Prerequisites: BIOL 341, 441; HHS 401, 460, 471 and consent of instructor. Study of control systems challenged by exercise and altered by chronic exercise that will be critical for patient management. Introduction to exercise measurement and clinical exercise related tools including basic metabolism, analysis of systems involved, exercise test design for different patient subjects, and the pharmacology of exercise. Study of pathology will always be preceded by study of the healthy individual. (Lecture/discussion 1, laboratory 3 hours.)

507. Management of the Neurological System (4)

Prerequisites: HHS 460, PT 505 and consent of instructor: The elements of patient/client management of neuromuscular disorders provided by physical therapists—examination (history, systems review, tests and measures), evaluation, diagnosis, prognosis, and intervention (with anticipated goals) including reexamination, outcomes, and criteria for discharge. Also includes primary prevention/risk factor reduction for specific diag-

nostic groups, the use of prosected materials and selected lectures by medical and physical therapy clinicians. (Lecture/discussion 3 hours, laboratory 3 hours.)

508. Management of the Pediatric Population (2)

Prerequisites: PT 505, 507, admission to the physical therapy program, and consent of instructor: Management of the pediatric physical therapy patient with neuromusculoskeletal disorders. Includes the examination (history, systems review, tests and measures), evaluation, diagnosis, prognosis to determine the extent of limitations. Also includes the pathophysiology and selection of appropriate intervention approaches and clinical decision making. May include lectures from medical and physical therapy practitioners. (Lecture/discussion 1 hour, laboratory 3 hours.)

509. Management of the Cardiopulmonary System (3)

Prerequisites: BIOL 341, 441; PT 505, 506 and consent of instructor. The elements of patient/client management of cardiopulmonary disorders provided by physical therapists—examination (history, systems review, tests and measures), evaluation, diagnosis, prognosis, and intervention (with anticipated goals) including reexamination, outcomes, and criteria for discharge. Also includes primary prevention/risk factor reduction for specific diagnostic groups, circulatory disorders and selected lectures by medical and physical therapy clinicians. (Lecture/discussion 2 hours, laboratory 3 hours.)

510. Patient Management and Functional Training (2)

Prerequisites: PT 501, 505, 606 and consent of instructor. Patient/client management with emphasis on assistive and adaptive devices, community and work reintegration, environmental, home, and work barriers, ergonomics and body mechanics, and self care and home management (including activities of daily living and instrumental activities of daily living). May include lectures from medical and physical therapy practitioners on selected topics. (Lecture/discussion 1 hour, laboratory 3 hours.)

511. Management of the Geriatric Population (3)

Prerequisites: PT 503, 504, 505, 507 and consent of instructor. The elements of patient/client management of the geriatric population provided by physical therapists—examination (history, systems review, tests and measures), evaluation, diagnosis, prognosis, and intervention (with anticipated goals) including reexamination, outcomes, and criteria for discharge. Also includes primary prevention/risk reduction strategies for specific diagnostic groups, and selected lectures by medical and physical therapy clinicians. (Lecture/discussion 2 hours, laboratory 3 hours.)

512. Clinical Electrophysiology I (3)

Prerequisites: BIOL 341, HHS 460, PT 507 (concurrent) and consent of instructor. The investigation of the physiological and neurological basis for the selection of electromyographic assessment tools and for the selection of electrotherapeutic modalities for the management of neuromusculoskeletal disorders. Also includes specific interventions used in the management of the patient/client with neuromuscular disorders. (Discussion 2 hours, laboratory 3 hours.) Letter grade only (A-F).

513. Clinical Electrophysiology II (2)

Prerequisites: PT 512 and consent of instructor. Physiological considerations in the use of nerve stimulation studies and electromyography with the patient/client with neuromuscular disorders emphasizing the rationale for the selection of electrical stimulation techniques for physical therapy intervention as well as functional use of electrical stimulation systems. (Lecture/discussion 1 hour, laboratory 3 hours.)

522. Clinical Practice I (1)

Prerequisites: PT 501, 505 and concurrent enrollment in PT 502, 503 and 506. Initial directed clinical practice in a variety of health care delivery systems emphasizing the management of musculoskeletal conditions. (Clinical practice 40 hours.)

523. Clinical Practice II (1)

Prerequisites: Completion of the first year of professional program. Supervised clinical practice in a variety of health care delivery systems emphasizing neuromuscular, developmental and pediatric conditions. (Clinical practice 40 hours.)

524. Clinical Practice III (1)

Prerequisites: Completion of PT 523. Supervised clinical practice in a variety of health care delivery systems emphasizing single and multiple systems impairments but including the management of cardiopulmonary, prosthetic, and spinal/extremity mobilization conditions. (Clinical practice 40 hours.)

525. Clinical Internship (1-12)

Prerequisites: Completion of all requirements for the MPT degree. Twenty-four weeks of supervised full-time clinical practice in a variety of health care delivery systems. Six weeks of clinical practice will be completed during the summer following the first year of the academic program and the culminating clinical experience will follow the completion of the second year of the academic program. Satisfactory completion of the internship is required for licensure to practice in the state of California. Must be repeated for total of twelve units. (Clinical practice 24 weeks.)

597. Independent Studies (1-3)

Prerequisites: Consent of instructor, and for human dissection, one general introductory anatomy course HHS 401, and HHS 402. Independent studies in any area of physical therapy. Human dissection is available as a special study. May be repeated to a maximum of six units. Letter grade only (A-F). (Independent studies.)

604. Seminar in Health Care Issues I (2)

Prerequisites: Admission to the professional program, PT 606. Investigation of the health care delivery system including the regulatory, political, ethical, legal and promotional aspects of health care. (Seminar 2 hours.)

605. Seminar in Health Care Issues II (2)

Prerequisites: PT 604 and consent of instructor. Investigation and discussion of the process of planned direction, organization, management, and economics of physical therapy and physical therapy delivery. Includes theories of disease prevention and health promotion. (Seminar 2 hours.)

606. Seminar in Clinical Decision Making I (2)

Prerequisites: Admittance to the physical therapy program. The critical analysis of professional literature differentiating documented evidence from secondary information, theory and opinion for the selection of effective evaluation and treatment techniques and the objective summarization of professional literature using clear, concise, scientific writing. The course also includes an introduction to Part I of the Guide to Physical Therapy Practice. Also includes learning principles and patient/family education. (Seminar 2 hour.) Letter grade only (A-F).

607. Seminar in Clinical Decision Making II (2)

Prerequisites: PT 604, 605, 606. Continuation of the investigation and synthesis of the data base for the management of the patient/client with disorders of the cardiopulmonary and neuromuscular systems. Includes examination of the psychosocial aspects of disability, community resources to meet the needs of the patient family, social/cultural aspects, patient compliance and advocacy, and learning theories and principles. (Seminar 2 hours.)

610. Advanced Study in Biomechanics and Kinesiology (2)

Prerequisites: PT 501, 502 and consent of instructor. Advanced study in the biomechanical evaluation of pathological posture and movement with emphasis on gait. Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

611. Advances in Orthopaedic Physical Therapy (2)

Prerequisites: PT 503, 504 and consent of instructor. Exploration of advanced clinical orthopedic management strategies. Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

612. Advanced Study in Clinical Electroneuromyography (2)

Prerequisites: PT 512, 513 and consent of instructor. Advanced electroneuromyography assessment and electrical stimulation technology with an emphasis on objective documentation and improvement of neurological status, muscle performance, walking ability and functional capacity. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours.)

613. Advances in the Management of the Geriatric Population (2)

Prerequisites: PT 505, 509, 511 and consent of the instructor. Exploration of the clinical management strategies and intervention in aging. Letter grade only (A-F). (Discussion 1 hour, laboratory 3 hours.)

614. Advances in the Management of the Pediatric Population (2)

Prerequisites: PT 505, concurrent enrollment in PT 507, and consent of instructor. Exploration of advances in the management of the pediatric physical therapy patient with emphasis on various pathologies. Letter grade only (A-F). (Lecture 1 hour, laboratory 3 hours.)

615. Advances in the Management of the Neurological Patient (2)

Prerequisites: PT 506, 507, 508 and consent of instructor. Exploration of special considerations in the patient with neurological impairment. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours.)

616. Advances in the Management of the Cardiopulmonary Patient (2)

Prerequisites: PT 509 and consent of instructor. Exploration in the special considerations in the management of the patient with cardiopulmonary and circulatory disability. Letter grade only (A-F). (Lecture/discussion 1 hour, laboratory 3 hours.)

617. Management and Development of Independent Practice (2)

Prerequisites: Admission to the professional program, PT 604, PT 605, and consent of instructor. Exploration of the management and business strategies in independent practice. Letter grade only (A-F). (Lecture/discussion 2 hours.)

618. Advanced Clinical Anatomy (2)

Prerequisites: PT 501, 502, 503, 504 and consent of instructor. Exploration of the advanced application of clinical anatomy. Dissection of specific areas of clinical relevance is an option. Letter grade only (A-F). (Lecture 1 hour, lab 3 hours.)

619. Contemporary Issues in Physical Therapy (2)

Prerequisites: PT 604 and consent of instructor. Exploration of contemporary and emerging trends in physical therapy practice. Letter grade only (A-F). (Lecture/discussion 2 hours.)

620. Management of Patients with Orthotic and Prosthetic Needs (2)

Prerequisites: PT 503, 504, 506, 511 and 512. The prescription, application, and, as appropriate, fabrication of devices and equipment (orthotic, prosthetic, and supportive splinting, taping, devices), including wheelchair seating prescription and adjustments. (Lecture/discussion 1 hour, laboratory 3 hours.)

622. Clinical Pathophysiology (3) F, S, SS

Prerequisites: PT 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 512, 513 (concurrent), 606, 620, 696. 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. (Lecture/discussion 3 hours.)

696. Research Methods (2)

Prerequisites: PT 606 and consent of instructor. Scientific inquiry with emphasis on information searching. Epidemiology, research design (qualitative and quantitative), measurement theory, and applied statistics. Also includes critical inquiry and clinical decision-making guidelines, research ethics, and the development of a proposal on the validation of physical therapy practice. (Lecture/discussion 2 hours.)

697. Directed Research Studies (1-4)

Prerequisites: PT 606, P696, advancement to candidacy and consent of instructor. Research in an area of specialization in physical therapy under the direction of a faculty sponsor. A total of at least four (4) units must be completed. Letter grade only (A-F). Courses may be repeated in different semesters to a maximum of 4 units.

698. Research Thesis/Project (1-4)

Prerequisites: PT 606, 696, advancement to candidacy and consent of instructor. Planning, preparation, and completion of thesis or project in physical therapy. Must be completed for a total of four units.

RECREATION AND LEISURE STUDIES

College of Health and Human Services

Department Chair

Katherine James

Department Office

Health and Human Services (HHS) 2 - 118

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Michael A. Blazey

Marilyn A. Jensen (Emeritus, 2000)

Associate Professor

Katherine James

Assistant Professors

Maridith Janssen

Susan Mathieu

Administrative Support Coordinator

Susan Goldman

Graduate Advisor

Michael A. Blazey

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The experience of leisure is a basic facets of life. It is an elemental experience, essential to the total well-being of every person; it is a reflection and expression of the cultural values of a society; it is an important treatment modality. Leisure and recreation services are also essential for healthy communities in terms of social climate, environmental quality, and economic stability. The provision of recreation services is one of the largest industries in the world, whether measured in dollars spent, persons served, hours of time devoted, or resources used. The study of leisure and recreation is a broad discipline, combining aspects of diverse fields of study and professional practice.

The Department of Recreation and Leisure Studies exists to promote a broader and deeper understanding of the role of leisure and recreation in the lives of all people, and to enhance the quality of experiences available to each person. This purpose is expressed in the four-fold mission of the Department of Recreation and Leisure Studies: (1) to offer a curriculum which leads the student to an increased understanding of the leisure phenomena; (2) to conduct basic research which contributes to the general body of knowledge; (3) to serve the community by conducting applied research and providing consultation and training to practitioners; and (4) to serve society by providing professional practitioners who are skilled, dedicated, and ethical stewards of the profession.

The Department is accredited by the Accreditation Council of the National Recreation and Park Association and American Association for Leisure and Recreation (National Recreation and Park Association, Council on Accreditation, 22377 Belmont Ridge Road, Ashburn, VA 20148, phone: 703-858-0784).

Students desiring information on undergraduate or graduate degrees or certificate programs in Therapeutic Recreation, Administration of Campus Recreation and Student Service Programs, Management of Nonprofit and Volunteer Services, Administration of Outdoor Recreation Resources, and Administration of Travel and Tourism should contact the department office for referral to one of the faculty advisors.

Bachelor of Arts in Recreation (code REC_BA01) (120 units)

Academic Program

The curriculum is designed to prepare men and women for positions of supervision and administration in public recreation and parks, armed forces recreation, employee services, therapeutic recreation, outdoor education, camp administration, voluntary youth and adult services, special event planning and management, travel and tourism, and commercial recreation.

The curriculum includes courses selected to provide an understanding of human development, service management, and a variety of specialty areas within the leisure services profession.

Departmental Policies

Each major 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 the 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

Lower Division: REC 141, 225;

Upper Division: REC 325, 351, 421, 423, 425, 427, 431, 441, 480, 498.

Additional Courses: Each major student is required to complete courses in the following groups: REC 100 or 300; Choose one from the following: HDEV 307I, 357I, or PSY 370; Choose 15 units from the following: REC 215, 321, 322, 324, 337, 371, 407, 410, 428, 430, 433, 451, 452, 454, 458, 462, 468, 473, 490, 499. Choose 3 units chosen from collaborative fields with advisor approval, such as FCS, KPE, EDP, CRIM, SW.

Minor In Recreation (code REC_UM01)

A minimum of 21 units approved by departmental advisor which must include: REC 141, 225, 321, 340I, 371 and one of the following: REC 322, 324, 337, 351, 428, 430, 431, 433, 462, 473 or 490 with consent of the advisor.

Certificate Programs

The certificate programs offered by the Department of Recreation and Leisure Studies are available to both undergraduate and graduate students, as well as students who already possess a baccalaureate degree and are enrolling through university extension, unless otherwise noted. Students pursuing an approved degree at CSULB may complete the certificate programs concurrently or subsequent to their degree. Courses taken to meet the requirements of a certificate may also be used, where appropriate, to meet the General Education requirements or the degree requirements of cooperating departments. Students wishing to pursue a certificate should contact the department to schedule a meeting with the certificate advisor.

Certificate in Therapeutic Recreation (code REC_CT01)

Therapeutic recreation has been identified as one of the fastest growing fields of employment. Recreational therapists work in clinical and community settings using recreation as a tool to assist in post-injury rehabilitation and to improve quality of life for people with disabilities. State and National Certification in therapeutic recreation is often required for employment in this field; the curriculum of this certificate program prepares students for the California Board of Recreation and Park Certification exam 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.

Core requirements: REC 100 or 300, 351, 451, 452, 454, 498.

Additional courses: 18 units which must be taken with approval from the certificate advisor. This includes an anatomy/physiology course (3 units); abnormal psychology (3 units); a human growth and development course (3 units); and upper division support courses (9 units) from the following areas: sociology, psychology, educational psychology, health science, adapted physical education, and special education.

Certificate in Administration of Campus Recreation and Student Service Programs (code REC_CT05)

Campus Recreation and Student Services is a growing field in elementary, secondary and higher education, as it relates to the co-curricular programs offered in support of the educational program, both in public and private institutions. The Certificate enhances professional development in Student Services such as Student Activities, Student Leadership Development, Residential Life, Student Community Service Volunteer Programs, and Intramurals and Recreational Sports; and Campus Services such as Conferences, Scheduling, Event Planning, and Alumni Relations. For those looking to be Certified Recreation Sports Specialist through NIRSA the courses will prepare them for the certification examination.

Twenty-four (24) units of core requirements including: REC 321, 322, 324, 325, 421, 427, 484; and one (3 unit) evaluation course: REC 441 or equivalent. The remaining six (6) units are electives which must be taken with approval of the advisor of the certificate program. These may include REC, KPE, HDEV, or HRM courses.

Certificate in Management of Nonprofit and Volunteer Services (code REC_CT02)

Nonprofit organizations require trained professionals to meet the demanding need of managing effective organizations and programs. This certificate program prepares students for employment as managers of nonprofit organizations and volunteer services.

Core requirements: REC 325, 421, 425, 427/527, 428/528, 498.

Additional courses: 6 units of elective courses addressing youth development, communication skills, marketing, evaluation, or working with diverse populations which must be taken with approval of the advisor of the certificate program.

Certificate in Administration of Outdoor Recreation Resources (code REC_CT03)

Outdoor recreation includes both the provision of recreation programs in the outdoors and the management of the parks and public lands that serve as the settings for these recreation experiences. Recreation program management and land management are distinct fields that must work cooperatively. This certificate program prepares students for careers in these interrelated fields. The curriculum includes courses selected to provide an understanding of outdoor recreation behavior, outdoor education, resource management policies, and an introductory understanding of natural science.

Core requirements: REC 427, 430, 431; REC 337 or SCED 401; and one of the following: REC 433, 485 or 499.

Additional courses: 9 units of elective courses from biology, geology or geography which must be taken with approval of the advisor of the certificate program.

Certificate in Administration of Travel and Tourism (code REC_CT04)

Travel and tourism is a very large and growing field in which there are usually many opportunities for well-trained individuals. This certificate program provides instruction in the history and theoretical bases of tourism, including its economics, psychology, and sociology as well as the political and legal aspects. The fundamentals of business, food and food service technology, the performing arts, and resource management are themes throughout the program.

Core requirements: REC 462, 468; REC 485 or 498; REC 490 or 499; GEOG 352.

Additional courses: 6 units of upper division courses listed in the University Catalog under the Regional category in the Department of Geography; plus 3 additional upper division units selected in consultation with the advisor of the certificate program.

Graduate Certificate in Leisure Counseling (code REC_CT06)

Leisure and recreation experiences add quality and enjoyment to life. When individuals experience significant changes in their lives, often through retirement or disabling injuries, they may need counseling to identify and develop leisure skills appropriate to their new life situations. This certificate program prepares students to use counseling techniques to enhance quality of life through leisure.

Admission/Prerequisite: Persons holding a bachelor's or master's degree in Recreation or Therapeutic Recreation or a related allied health field (e.g. Occupational Therapy, Music Therapy, Gerontology, Psychology, Adapted Physical Education, Counseling); two years verified experience in counseling approved by the program advisor.

Core requirements: REC 454/554, 503, 590; EDP 532, 533.

Additional courses: 3 units which must be taken with approval of the advisor of the certificate program.

Master of Science in Recreation Administration (code REC_MS01)

The Department of Recreation and Leisure Studies offers a program of graduate studies leading to the Master of Science degree in Recreation Administration. Information about the program is available from the Department. The program helps prepare professional personnel who can contribute to the development of a philosophy of leisure, are competent managers of private and public agencies and programs, and can accomplish the field research necessary to support current and future operations. Unusually fine opportunities exist in this area for interaction with recreation agencies of all kinds.

Applicant should request a copy of official transcript of all college course work be sent to the graduate advisor in Recreation and Leisure Studies Department in addition to the copies required by the Office of Admissions and Records.

Prerequisites

1. A bachelor's degree with a major in recreation; or,
2. A bachelor's degree with a minimum of 24 units of upper division courses comparable to those required in the undergraduate recreation major at this University. (Students deficient in undergraduate preparation must take courses to remove these deficiencies with the approval of the departmental graduate committee.)

Advancement to Candidacy

1. Satisfy the general University requirements for advancement to candidacy;
2. Completion of the Graduate Record Examination and the CSULB Writing Proficiency Examination;
3. Approval of the department graduate advisor and the Associate Dean of Graduate Studies and Research, College of Health and Human Services.

Requirements

1. Thesis option program: 30 units with a minimum of 24 units in Recreation including REC 521, 571, 595, 591, 696 and 698 (Thesis [4 units] with an oral examination on the thesis); Comprehensive Examination option program: thirty-six units with a minimum of 30 units in Recreation

including REC 521, 571, 595, 696, and 697 (Directed Studies and the oral and written comprehensive examinations).

2. REC 696, Research Methodology, must be completed in the first year of the program, or concurrently with the first enrollment in a 500 or 600 course.
3. A maximum of six units may be elected outside the department.

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 the Department of Recreation and Leisure Studies; and computer applications required of all majors. Letter grade only (A-F). (Discussion, 3 hours.)

141. Introduction to Leisure Services (3)

Prerequisite: One GE Foundation Course (may be taken concurrently). 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. (CAN REC 2)

215. Management of Outdoor Field Trips (1)

Field experiences in unique outdoor recreation programs. Course content will include planning, logistics and leadership techniques involved in field trip organization. (Activity 2 hours.)

220. Universality of Play (3)

Prerequisites: Completion of GE Foundation requirements. Exploration of the ethnic origins of play from an international perspective. Influence of play on creativity, drive and self image of society. Theory and practicum. Course may be repeated to a maximum of 3 units.

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./100. 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 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)

Prerequisites: REC 100 or 300, REC 225, or consent of the instructor. 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)

Prerequisites: Junior Standing. Principles and practices in provision of recreation services on college, secondary, and elementary school campuses.

325. Advanced Program and Event Management (3)

Prerequisites: REC 100 or 300, REC 141, 225. Advanced management of recreation and leisure service programs with special emphasis on event planning and promotion. Includes interpretations of needs assessments and market analysis; analysis and selection of prospective client bases; program design, marketing, promotion, implementation and evaluation.

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)

340I. Leisure in Contemporary Society (3)

Prerequisites: Completion of G.E. Foundations requirements; one or more explorations courses; upper division standing. Study of Leisure as an expression of (1) culture including the influences of gender, age, cohort, and racial/ethnic background, (2) society (economic level, access to technology, popular culture, self-destructive activities), and (3) wellness including stress management, and individual and collective quality of life.

351. Foundations of Therapeutic Recreation (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. Philosophical and historical foundations of therapeutic recreation and principles of planning, implementing, and evaluating leisure services for individuals with disabilities. (Lecture/Activity 3 hours.)

371. Human Services Programming in Urban Areas (3)

Exploration of the social conditions, community resources, and agency collaborations addressing human needs and recreation services in urban impacted areas.

*407. Starting a Recreation Business (1)

Examines the basic legal, financial, and practical concerns related to starting a recreation business in California.

410. Designing Effective Workshops and Conferences (1)

Course will enable a student to analyze elements of workshop and conference design, and provide the student with the knowledge and skills necessary to develop effective, participative group meetings.

*421. Supervisory and Administrative Practices (3)

Prerequisite: REC 100 or 300, REC 141, 225, 321, or consent of instructor. 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: REC 100 or 300, REC 141, 225, 325 or consent of instructor. 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)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. 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)

Prerequisites: Upper Division Standing. 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)

Study of the skills and techniques of administration of an ocean-oriented recreational resource, including management and trip planning. Course content will be supplemented with a week long field trip to Santa Barbara Island. Course fee required.

*431. Recreation Resource Management (3)

Prerequisites: REC 100 or 300, REC 141, 225, or consent of instructor. 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.

*433. Management of Organized Camps (3)

Prerequisites: REC 100 or 300, REC 141, 225 or consent of instructor. Management of the organized camps, with particular emphasis on the role and responsibility of the on-site director; practical experience in all phases of camping. Topics covered include camp philosophies, job responsibilities and staffing, staff dynamics, campers characteristics and needs, camp program development and camp facility management.

441. Evaluation and Research in Leisure Services (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. Foundations of current methods and practices of evaluation and research about leisure and 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).

*451. Management of Therapeutic Recreation Services (3)

Prerequisites: REC 100 or 300, 141, 225, 325, 351, 452, 454 or consent of the instructor. Comprehensive therapeutic recreation program development, operation, and management. Advanced principles, issues, and trends in therapeutic recreation. Letter grade only (A-F).

*452. Therapeutic Recreation Treatment/Program Planning (3)

Prerequisites: REC 100 or 300, 141, 225, 351, or consent of instructor. Development of individual treatment/program plans in therapeutic recreation. Includes assessment of leisure and social functioning, problem identification, development of measurable objectives, determination of program content and methods, documentation, and evaluation of the client's progress. Letter grade only (A-F). (Lec 2 hrs, Act 1 hr.)

454./554. Leisure Counseling (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. Current processes and procedures in leisure counseling. Includes techniques of leisure needs assessment, development of leisure resource files and leisure values orientation. (Lecture-Activity, 3 hrs.)

458./558. Therapeutic Recreation: Facilitating Leisure and Wellness (3)

Prerequisites: REC 100 or 300, REC 141, 225, or consent of the instructor. An overview of the role of leisure in wellness and wellness programs as it relates to therapeutic recreation. Examination of various therapeutic recreation facilitation techniques as a major component of promotion of wellness programs. Includes assessment of leisure functioning and development and implementation of therapeutic recreation programs and services. Letter grade only (A-F).

*462. Travel, Tourism, and Resort Recreation Management (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. 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.

*468. Tourism Planning and Development (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325, 462 or consent of instructor. Analysis of elements which are included in a community development plan. Assessment of the touristic potential of a region or site, enabling legislation, organization, and administration of a tourism development plan, identification of sources of resistance and support.

469./569. Disability, Culture and Society: Issues and Intervention (3)

Prerequisite: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as GERN 469./569 and SW 469./569. Letter grade only (A-F).

473./573. Aging and Leisure (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. 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: Open to Recreation majors only. Senior standing and consent of the instructor. Exploration of the philosophic bases for current practices in recreation and leisure organizations, and ethical concerns in leisure service delivery. Interpret the role of leisure in community and individual wellness and wellness programs. Letter grade only (A-F)

483. Professionalism in Leisure Services (1)

Corequisites: REC 498. Synthesis of experience gained from internship placement with theoretical and applied concepts learned in the academic setting. Preparation for the transition from academic to professional life. Letter grade only (A-F). (Sem, 1 hr.)

485. Field Work (3)

Prerequisites: Consent of the instructor. Supervised experience in recreation leadership, supervision or administration approved by faculty advisor or consent of the instructor. Credit/No credit grading only. Repeatable up to 6 units.

***490. Special Studies in Recreation (1-3)**

Identification and critical analysis of current problems in selected areas of recreation. Topics to be announced in the *Schedule of Classes*. May be repeated for a maximum of six units of credit with change of topic.

***498. Internship in Leisure Services (6-9)**

Prerequisites: Completion of all major requirements; 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 the CSULB Language Proficiency Requirements; and consent of the internship coordinator. This internship will involve 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, 6-9 hours.)

499. Independent Study (1-3)

Prerequisites: Consent of dept. and approval by department chairperson. Individual projects in areas of special interest. Independent study under the direct supervision of a faculty member. May be repeated for a maximum of 6 units of credit with consent of instructor.

Graduate Level**521. Recreation Administration (3)**

Organizational theory; planning and budgeting of recreation programs in governmental and voluntary agencies.

527./427. Legal Aspects of Leisure Services (3)

Prerequisites: Upper Division Standing. 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.

554./454. Leisure Counseling (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. Current processes and procedures in leisure counseling. Includes techniques of leisure needs assessment, development of leisure resource files and leisure values orientation. (Lecture-Activity, 3 hrs.)

558./458 Therapeutic Recreation: Facilitating Leisure and Wellness (3)

Prerequisites: REC 100 or 300, REC 141, 225, or consent of the instructor. An overview of the role of leisure in wellness and wellness programs as it relates to therapeutic recreation. Examination of various therapeutic recreation facilitation techniques as a major component of promotion of wellness programs. Includes assessment of leisure functioning and development and implementation of therapeutic recreation programs and services. Letter grade only (A-F).

569./469. Disability, Culture and Society: Issues and Intervention (3)

Prerequisite: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as GERN 569./469 and SW 569./469. Letter grade only (A-F).

571. Philosophy, Issues and Trends (3)

Current philosophy, trends and issues in the field of recreation.

573./473. Aging and Leisure (3)

Prerequisites: REC 100 or 300, REC 141, 225, 325 or consent of instructor. 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. Special Topics in Recreation (1-3)

Prerequisite: Consent of instructor. In-depth investigation of topics of current interest and concern to students experienced in recreation. May be repeated for a maximum of six units with different topics. Topics to be announced in the *Schedule of Classes*.

591. Research Proposal Writing (1)

Prerequisite: REC 696. Course is concerned with variations in research design and methodology. Completion of a thesis proposal is a requirement of this course.

595. Management Studies (3)

Administrative studies and surveys; procedures for conducting appraisals of recreation programs and facilities.

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 up to a maximum of six units. Letter grade only (A-F).

696. Research Methodology (3)

Research methodology in recreation. To be completed within the first 12 units of the 500/600 series of courses.

697. Directed Studies (1-3)

Prerequisites: REC 698, advancement to candidacy. Independent investigation of field research problems in recreation.

698. Thesis (1-4)

Prerequisites: REC 591, 696, advancement to candidacy. Planning, preparation and completion of an approved thesis.

ROMANCE, GERMAN, RUSSIAN LANGUAGES AND LITERATURES

College of Liberal Arts

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Carlo Chiarenza (Italian)

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Bonnie Gasior

Administrative Support Coordinator

Cindy McCarty

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for referral to one of the faculty advisors: Credential Advisor, Undergraduate Advisor, Graduate Advisor.

Department Courses (RGR)

Lower Division

346I. The European Cinema of Communism, Fascism and Resistance (3)

Prerequisite: Completion of the GE Foundation, one or more Exploration courses, and upper division standing. This course will focus 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.

450I. Consequences of the Encounter: The Americas, Europe, and Africa (3)

Prerequisites: Completion of the GE Foundation requirement, completion of one or more Exploration courses and upper-division status. The study of the consequences of the encounter between Africa, Europe, and the Americas from the voyages of Columbus to contemporary times. Through several disciplines: Art, Literature, and the Social Sciences the course examines the complex results of the encounter in respect to the obliteration, suppression and creation of culture among the peoples of both the Old and New Worlds. Same course as CHLS 450I.

470./570. 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 (LI 110 or ISTE competencies for K-12 students). (C) EDSS 300F, or concurrent enrollment, or instructor's permission. 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).

Graduate Level

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 (LI 110 or ISTE competencies for K-12 students). (C) EDSS 300F, or concurrent enrollment, or instructor's permission. 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).

Arabic Courses (ARAB)

101A. Standard Modern Arabic I (4)

Corequisite: Any Foundation course. For those who are beginning the study of Arabic. Not intended for Heritage speakers of Arabic. Letter grade only (A-F).

101B. Standard Modern Arabic II (4)

Corequisite: Any Foundation course. Prerequisite: ARAB 101A or instructor's consent. Continuation of the work in 101A in speaking, pronunciation, comprehension and writing. Letter grade only (A-F).

Hebrew Courses (HEBW)

101A. Modern Hebrew (4)

Corequisite: Any Foundation course. This course is designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

101B. Modern Hebrew (4)

Prerequisite: HEBW 101A. Corequisite: Any Foundation Course. Continuation of HEBW 101A, this course is designed for non-native speakers. It introduces students to Hebrew and enables them to comprehend and communicate in Hebrew at increasingly complex levels.

THE FRENCH PROGRAM

Program Director - Clorinda Donato

A degree in French places the world of international communication and culture at your fingertips. As one of the foremost languages of global diplomacy, relations, and scholarship, a degree in French makes careers in arts management, art history, international business, international relations, teaching, and travel possible. It is also a preferred language for academic pursuit in the social sciences and critical studies. The Francophone world only begins in France, stretching far beyond the Champs-Élysées into Africa, Quebec, the Caribbean, and Tahiti. Additionally, a double major or a minor in French enhances any other degree program, making the student doubly marketable upon graduation. Graduate study leading to the Master of Arts degree comprises another feature of the program. Students who complete the Master of Arts degree in French perfect their knowledge of the Francophone world. They pursue or continue professions in teaching, business, travel, and diplomacy, to name only a few, or proceed to doctoral programs at Ph.D. granting institutions. Teaching Assistantships are available.

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 year abroad into your program of language and literary study.) Students are encouraged to participate in work/study abroad options.

Bachelor of Arts in French (code RGR_BA01) (120 units)

The major in French consists of 30 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 requirements 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 re-

quirement: two college years or equivalent of a second foreign language, not English. The Department also recommends inclusion of specified history courses in the program of study. These courses provide additional enrichment to the cultural component of the student's course of study.

Requirements

Lower Division: FREN 214. Students who have completed sufficient high school French may take upper-division courses as soon as lower-division requirements have been met.

Upper Division: A minimum of 30 units of upper-division courses which must include FREN 312A, 312B, 314, 335, 336, 411, 440 and three of the following courses: 414, 456, 470, 471, 472, 474, 477, 479, 480, 490. Candidates for the teaching credential must take FREN 414.

Department Requirement: Two years of a second foreign language at college level or equivalent is required of all majors.

Departmental Recommendation: Students specializing in French should include the following courses in their program of study: HIST 131, 132, and one or more of the following: HIST 335, 336, 337. A selection from the following courses would also be appropriate: HIST 332, 333.

Bachelor of Arts in French Studies (code RGR_BA08)

Director - Dr. David Shafer, Lecturer, History
Advisor - Dr. Clorinda Donato, Professor of French and Italian
Program Office FO2-218, Telephone (562) 985-4612

The Bachelor of Arts in French Studies provides students with a thorough basis in the study of French Language, History, Literature and Culture within a global context. Students completing the B.A. in French Studies will acquire an interdisciplinary understanding of French history, culture, and society that will prepare them for a broad range of career options both at home and abroad. These include international law and business, teaching, government and foreign service. In addition, the solid background in French and Francophone history and literature provides a strong foundation for further study at the graduate level in a variety of M.A. and Ph.D. programs.

The French Studies Program situates California State University, Long Beach at the vanguard of scholastic innovation in the burgeoning field of cultural studies. The French Studies major provides a unique opportunity for students to address the cultural, economical, social, and political dimensions of Francophonie. This major reinforces California State University, Long Beach's established and recognized record as a leader in offering students a global pedagogical experience that can be transferred to the working world of the present and the future.

To meet new demands for professionals, French Studies combines courses from literature and history. French Studies will enable students to draw from a multifaceted disciplinary basis to interpret cultural phenomena and trends in a variety of global contexts. Students will receive training in historical, linguistic, and literary methods in the complementary areas of French and Francophone history and literature in this major. As the only public institution of higher education in California to approach French Studies at the undergraduate level from both global and cross-disciplinary perspectives, California State University, Long Beach recognizes the cooperative and symbiotic relationship connecting the disciplines of history and litera-

ture with respect to a comprehensive understanding of the Francophone World.

French Studies Majors are required to develop a program of study in consultation with the program advisor. In addition to assisting students in the development of the program plan and providing advice on post-graduate options, the program advisor and director maintain close contact with each student in the major. Courses for the program have been selected to foster synergistic growth in French language, literature, culture and history. Students begin the major at the third-year level, after they have completed two years of college French (or have acquired the equivalent competency) and after they have completed course work in world history. At the third year they will take advanced language and composition, survey courses in French literature, historical methods, and 300-level French History courses. During the senior year, students will take French Civilization, specialized courses in the literature and history of France and the Francophone world, and the French Capstone course. Furthermore, students majoring in French Studies will be encouraged to avail themselves of the opportunity to participate in a study abroad or internship program.

Requirements

Upper Division: A minimum of forty-eight (48) units of upper division course work. Fifteen (15) units must come from the following History courses: HIST 334, 336, 337, 339 and 301. Twenty-one (21) units must come from the following French courses: FREN 312A, 312B, 335, 336, 337, 411 and 440. However, with the Program Director's consent, the requirement of FREN 312A and 312B may be waived. The remaining twelve (12) units can be selected from the following courses (subject to prior approval of the Program Director and based on course content): HIST 435, 498, FREN 456, 470, 471, 472, 474, 477, 479, 480, 484, 490.

Minor in French (code RGR_UM01)

A minimum of 20 units which must include: FREN 312A, 312B, 314, 411 and at least one other upper-division course in French to make a minimum total of 15 upper-division units.

The Minor in French is available to any non-French major.

Master of Arts in French (code RGR_MA01)

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. Successful completion of the University Writing Proficiency Examination.

Requirements

1. Completion of a minimum of 30 units of approved graduate-credit courses with at least 24 units in French distributed as follows:
 - a. 15 units of 600 series courses.
 - b. 9 units of 500 or 600 series courses in French.
 - c. 6 units of other acceptable graduate-credit courses.(NOTE: Courses taken outside the Department as subject to departmental approval.)
2. Two years of college-level study, or equivalent, of another language (e.g., German, Italian, Latin, Russian, or Spanish) with a minimum average grade of "B" or better. This requirement may also be met by passing the Graduate Studies Foreign Language Test (G.S.F.L.T.) In another language with a score of 500 or better. This requirement must be completed before taking the comprehensive examination.
3. A comprehensive examination.
4. Teaching Associates must take FREN 424, Language Acquisition, during the first year of the assistantship.

Single Subject Teaching Credential, French

Requirements

Same as for the major in French with French Phonetics, FREN 414, as one of the 400-level courses.

French Courses (FREN)

Lower Division

101A. Fundamentals of French (4)

Corequisite: Any Foundation course. Fundamental skills of speaking, comprehending, reading and writing. For those who are beginning the study of French or who have had one year of high school French or equivalent. (lecture 4 hrs.) (CAN FREN 2)

101B. Fundamentals of French (4)

Prerequisite: FREN 101A or two years of high school French or equivalent. Corequisite: Any Foundation course. Fundamental skills of speaking, comprehending, reading and writing. Continuation of FREN 101A. (lecture 4 hrs.) (CAN FREN 4)

201A. Intermediate French (4)

Prerequisite: FREN 101B or three years of high school French or equivalent, and completion of the 13-unit Foundation requirement (or entering competency equivalent to FREN 101B and completion or concurrent enrollment in at least one Foundation course). Continued work in speaking, pronunciation, comprehension and writing. (Lecture 4 hrs.) (CAN FREN 8)

201B. Intermediate French (4)

Prerequisite: FREN 201A or four years of high school French or equivalent, and completion of the 13-unit Foundation requirement (or entering competency equivalent to FREN 201A and completion or concurrent enrollment in at least one Foundation course.) Continued work in speaking, pronunciation, comprehension and writing, with some reading of modern writers. (lecture 4 hrs.) (CAN FREN 10)

214. Intermediate Conversation (3)

Prerequisite: FREN 101B. Should be taken concurrently with FREN 201A or 201B. Designed to develop basic conversational skills and to prepare for more advanced work in FREN 314. 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.

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).

335. Survey of French Literature I (3)

Prerequisite: Upper division standing in French. From the Middle Ages through the Seventeenth Century.

336. Survey of French Literature II (3)

Prerequisite: Upper division standing in French. Eighteenth to Twentieth Century.

337. Survey of French Literature III: Twentieth Century French and Francophone Literatures (3)

Prerequisites: Upper division standing in French. Survey of Twentieth-Century and Francophone literatures.

411. Advanced French Syntax and Composition (3)

Prerequisites: FREN 312A-B or equivalent. Special emphasis on the writing of short compositions and developing an awareness of French style.

***414. French Phonetics (3)**

Prerequisites: FREN 312 A-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.

440. French Civilization (3)

Prerequisite: FREN 312A,B (may be taken concurrently with FREN 335 or 336 or with consent of instructor). Significant aspects of French art, culture and social institutions. Credit for these courses may be obtained at a specified French university with which CSULB has an exchange agreement. They will be taught by instructors from CSULB.

456. French Cinema (3)

Prerequisite: Senior 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 its success or failure, in this case the director. Letter grade only (A-F). Same course as FEA 456.

460./560. The Art of Translation (3)

Prerequisites: Upper division or graduate status. Permission of instructor for third-year students. This course will cover the translation of French texts into English and of English texts into French. Theories of translation and their implications will be concretized in group translation activities. Translations may be published in The Translators' French Quarter, a journal of the RGRLL Department. Course may be repeated to a maximum of 6 units.

462./562. Reading French Women Writers (3)

Prerequisites: FREN 335, 336, and 337 (Surveys of French Literature I, II, and III) or consent of instructor. The course covers the literary production of women who wrote and write literature in France. French feminism, the question of "écriture féminine" and gender will also be discussed. The course does not cover Francophone women writers. Course may be repeated to a maximum of 6 units.

470./570. French Literature of the Middle Ages (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the period. Texts in modern French.

471./571. French Literature of the Renaissance (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the 16th Century.

472./572. French Literature of the Seventeenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the century.

474./574. The Age of Enlightenment (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers and thinkers of the century. Drama, poetry and prose.

475./575. Seminar in Francophone Literature (3)

Prerequisites: FREN 337 or consent of instructor. Course may be repeated to a maximum of 15 units with different topics in the same semester.

A. Africa

B. Caribbean

C. Maghreb

D. Quebec

E. Switzerland

477./577. French Literature of the Nineteenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers of the century. Drama, poetry and prose.

479./579. French Literature of the Twentieth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers of the century. Drama, poetry and prose.

480. Senior Seminar: Self and Society (3)

Prerequisites: FREN 335, 336 and two 400-level French courses, or permission of instructor. This capstone course is a senior seminar focusing on The Self and Society. The course will examine a wide variety of literary works, ranging from Medieval works such as *Tristan et Iseult* to twentieth-century Francophone classics such as *L'Enfant noir*; various historical, critical and philosophical works; and some films with literary bases such as *Les Liaisons dangereuses* and *Madame Bovary*.

490./590. Special Topics in French (3)

Study of a particular topic in French literature, language, or culture. Specific topics to be announced in the *Schedule of Classes*. May be repeated for a maximum of 12 units with different topics.

494. Internship in French (1-3)

Prerequisites: Consent of instructor and department chair. Field work in French, 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. Course may be repeated for 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 for 3 units provided the material is not the same. Additional credit beyond 3 units is available only under exceptional circumstances and with prior approval of the department, but under no circumstances may the total exceed six units.

Graduate Level

560/460. The Art of Translation (3)

Prerequisites: Upper division or graduate status. Permission of instructor for third-year students. This course will cover the translation of French texts into English and of English texts into French. Theories of translation and their implications will be concretized in group translation activities. Translations may be published in The Translators' French Quarter, a journal of the RGRLL Department.

562/462. Reading French Women Writers (3)

Prerequisites: FREN 335, 336, and 337 (Surveys of French Literature I, II, and III) or consent of instructor. The course covers the literary production of women who wrote and write literature in France. French feminism, the question of "écriture féminine" and gender will also be discussed. The course does not cover Francophone women writers. Course may be repeated to a maximum of 6 units.

570./470. French Literature of the Middle Ages (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the period. Texts in modern French.

571./471. French Literature of the Renaissance (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the 16th Century.

572./472. French Literature of the Seventeenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative drama, poetry and prose of the century.

574./474. The Age of Enlightenment (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers and thinkers of the century. Drama, poetry and prose.

575./475. Seminar in Francophone Literature (3)

Prerequisites: FREN 337 or consent of instructor. Course may be repeated to a maximum of 15 units with different topics in the same semester.

- A. Africa
- B. Caribbean
- C. Maghreb
- D. Quebec
- E. Switzerland.

577./477. French Literature of the Nineteenth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers of the century. Drama, poetry and prose.

579./479. French Literature of the Twentieth Century (3)

Prerequisites: FREN 335, 336 or consent of instructor. Study of representative writers of the century. Drama, poetry and prose.

590./490. Special Topics in French (1-3)

Study of a particular topic in French literature, language, or culture. Specific topics to be announced in the *Schedule of Classes*. May be repeated to a maximum of 12 units with different topics.

599. Directed Studies (1-3)

Graduate standing with baccalaureate degree or equivalent. Graduate-level in-depth study on selected topics under the supervision of a graduate faculty member. May be repeated for a maximum of 3 units. Topic and study outline of work undertaken to be on file in Department. Enrollment contingent upon approval of Department Chair and faculty member.

604. 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. May be repeated for a maximum of 18 units with different topics in the same semester. Letter grade only (A-F).

- C. 17th Century
- D. 18th Century
- H. 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 to be announced in the *Schedule of Classes*.

696. Bibliographical Methods of Research (3)

Prerequisite: Graduate standing in French. Introduction to methods of research, scholarly writing.

697. Directed Research (1-3)

Prerequisite: Consent of department chair. Individual study under the guidance of a faculty member. May be taken for a maximum of 3 units.

698. Thesis (2-6)

Planning, preparation, and completion of thesis in French for the master's degree. Optional.

THE ITALIAN PROGRAM

Program Director

Carlo Chiarenza

The George L. Graziadio Center for Italian Studies

Carlo Chiarenza

The George L. Graziadio Chair of Italian Studies

The Center, established in 2001, promotes the diffusion and the study of the Italian Culture and Civilization. In addition to administering the Italian Program, the Center sponsors lectures, conferences and cultural events. The Center also offers a number of scholarships for study in Italy.

The minor in Italian opens the door to the continuing legacy of culture, taste, and civilization that are the hallmarks of Italy past and present. Italian language and literature furnish the student with a solid liberal arts foundation, ideal for the liberal studies major seeking a humanities-based concentration. The Italian minor can be taken in conjunction with any other major, and is an excellent choice for students majoring in another Romance language, or in Art, Art History, Business, Comparative Literature, Dance, English, History, Music, or the Social Sciences. The Italian program at CSULB is strong and growing, with course offerings ranging from basic and advanced level language courses to literature, civilization, and film.

Learning either Italian 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 year abroad into your program of language and literary study.) Students are highly encouraged to participate in work/study abroad options.

Minor in Italian (code RGR_UM02)

The Minor in Italian provides academic recognition to students who have completed a basic course of studies and have achieved competence in the Italian language.

The Minor in Italian is available to any non-Italian major.

Prerequisite

ITAL 101A-B

Requirements

A minimum of twenty units must include:

Lower Division: ITAL 201A-B, and 214.

Upper Division: ITAL 312A, 312B, and 314.

Italian Courses (ITAL)

Lower Division

101A. Fundamentals of Italian (4)

Prerequisite/Corequisite: Any Foundation course. For those who are just beginning the study of Italian or who have had one year of high school Italian. Practice in grammar, reading, pronunciation, writing and conversation. (lecture 3 hrs., laboratory 2 hrs.)

101B. Fundamentals of Italian (4)

Prerequisite/Corequisite: Any Foundation course. Continuation of ITAL 101A. Practice in grammar, reading, pronunciation, writing and conversation. (lecture 3 hrs., laboratory 2 hrs.)

201A. Intermediate Italian (4)

Prerequisites: ITAL 101B and completion of GE Foundation requirements (or entering competency equivalent to ITAL 101B and completion or concurrent enrollment in at least one Foundation course. Readings of representative writers with oral and written practice. (lecture 3 hrs., laboratory 2 hrs.)

201B. Intermediate Italian (4)

Prerequisites: ITAL 201A and completion of GE Foundation requirements (or entering competency equivalent to ITAL 201A and completion or concurrent enrollment in at least one Foundation course. Readings of representative writers with oral and written practice. (lecture 3 hrs., laboratory 2 hrs.)

214. Intermediate Conversation (3)

Prerequisite: ITAL 101B. Should be taken concurrently with ITAL 201A or 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.

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 in 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 the development of increased mastery of the 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 I: Nineteenth and Twentieth Centuries (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.

454. Italian Cinema (3)

Prerequisite: Senior 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 its success or failure, in this case the director. Letter grade only (A-F). Same course as FEA 454.

490. Special 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. Specific topics to be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 12 units.

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.

THE GERMAN PROGRAM

Program Director

Jutta Birmele

The German program develops the student's language skills, and knowledge of current affairs in German-speaking countries, as well as cultural literacy, which are indispensable for foreign study and employment, business, government service, and careers in teaching, among others. In cooperation with the College of Engineering, the German Program promotes a double major of German and Engineering. In addition, the Program offers a BA in German Studies with a concentration/certificate in the Administration of Travel and Tourism. German Studies maintains exchange programs with the University of Bielefeld, Essen, and

Oldenburg as well as Freiburg (Switzerland) and Salzburg (Austria). German students are also eligible to participate in the German-American Business Student Workshop with the Polytechnic University Hamburg, Germany.

Bachelor of Arts in German (code RGR_BA02) (120 units)

The German Studies Program promotes competency in the use of language and understanding of contemporary society in German-speaking countries. It is designed to meet the needs of students seeking a liberal-arts education with an emphasis on German language and culture; those intending to teach at the elementary, secondary, or the college level; and of those planning to use German in professional careers or in pursuit of graduate studies. Efforts are made to accommodate the special needs of students who simultaneously pursue a major in Business, Engineering or a certificate in Travel and Tourism.

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. Native speakers of German may not enroll for credit in 101A/B or 201A/B.

Upper Division: A minimum of 30 units of upper-division courses in German, which must include GERM 301, 302, 315, 316, six units of 401, and six units of 400-level literature and culture courses.

Recommendations: Courses should be selected in consultation with the major advisor. The department strongly recommends studies or an internship in a German-speaking country and will assist in such plans.

Single Subject Teaching Credential, German

Requirements

The same as for the B.A. plus German 303 and 410:

Minor in German (code RGR_UM03)

A minimum of 20 upper division units, which must include: GERM 301, 302, 315, 316, and 401.

The Minor in German is available to any non-German major.

Master of Arts in German (code RGR_MA02)

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 candidate may file for advancement to candidacy only after she/he has filed a transcript of credits or a change-of-objective form, completed the prerequisites, and successfully completed the Writing Proficiency Examination (WPE).

The student graduate program must be approved by the graduate advisor, departmental committee, and the College of Liberal Arts Associate Dean of Graduate Studies. For graduate students interested in multimedia teaching technology, the program provides special projects and practical opportunities.

Teaching Assistantships are available.

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 18 units in the 500 and 600 series in German which must include GERM 510.
3. A reading knowledge of French, Italian, Latin, Russian, or Spanish. Another language may be substituted only under special circumstance;
4. A comprehensive examination or a thesis.

German Courses (GERM)

Lower Division

101A. Fundamentals of German (4)

Prerequisite/Corequisite: Any Foundation course. For those who are just beginning the study of German. (Lecture 3 hrs., laboratory 2 hrs.)

101B. Fundamentals of German (4)

Prerequisite/Corequisite: Any Foundation course. Continuation of GERM 101A. (Lecture 3 hrs., laboratory 2 hrs.) (CAN GERM 4)

201A. Intermediate German (4)

Prerequisite: GERM 101B and completion of GE Foundation requirements (or entering competency equivalent to GERM 101B and completion or concurrent enrollment in at least one Foundation course. German grammar review with further development of reading, writing, and conversational skills. (Lecture 3 hrs., laboratory 2 hrs.)

201B. Intermediate German (4)

Prerequisite: GERM 201A and completion of GE Foundation requirements (or entering competency equivalent to GERM 201A and completion or concurrent enrollment in at least one Foundation course. German grammar review with further development of reading, writing, and conversational skills. (Lecture 3 hrs., laboratory 2 hrs.)

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

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 German I (4)

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. Advanced German II (4)

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. German Conversation (3)

Prerequisite: Upper-division standing in German. Intensive practice of spoken German with stress on vocabulary building, pronunciation, intonation, and oral comprehension. Credit/No Credit grading only. May be repeated for a maximum of 6 units.

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.

309. Business German (3)

Prerequisites: GERM 101A,B or equivalent or consent of instructor. Advanced language course to acquaint students with the terminology of German business. Conversational and written approaches to business correspondence, forms of business and corporate organizations, transportation, banking, management, protection, marketing. (Not open to students with credit in GERM 307 or 308.)

315. Survey of German Literature and Culture I (3)

Prerequisite: 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.

316. Survey of German Literature and Culture II (3)

Prerequisite: Upper division standing in German. 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.

380I. Contemporary Germany, Society, and Culture (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. After the peaceful revolution of 1989/90, the united Germany today presents a different picture than at any time in its turbulent history. An important trading partner of the United States and close ally, it owes much of its democratic framework to U.S. influence during the immediate post-war period. The course examines the cultural heritage, the political and social reality, and the economic system through fictional and factual texts. Taught in English. Letter grade only (A-F).

398. Topics in German (3)

Prerequisite: Upper division standing in German or consent of instructor. Exploration of topics in language, culture, and literature. Specific topics to be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units.

401. Advanced German Syntax and Composition (3)

Prerequisites: GERM 301, 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. German Civilization (3)

Prerequisite: Upper-division standing in German. Historical development of important German institutions, customs and thought.

430./530. German Poetry (3)

Prerequisite: Upper-division standing in German. German poetry from the Baroque to the present.

441./541. German Novella (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.

454./554. German Literatures of the 18th Century (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 of the "Sturm und Drang." Letter grade only (A-F).

459B./559B. German Literature from 1945 to Present (3)

Prerequisite: Upper-division standing in German. Significant contemporary German writers of prose, drama, and poetry.

480. German Cinema (3)

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).

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. Course may be repeated for a maximum of 6 units. No more than 3 units may be applied to the major in German.

*498. Topics in German (3)

Prerequisite: Senior standing in German or consent of instructor. Exploration of topics in language, culture, and literature. Specific topics to be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units.

499. Directed Studies (1-6)

Prerequisite: Consent of instructor. Independent study undertaken under the supervision of a faculty member.

Graduate Level

510. The Faces of United Germany: Past, Present, and Future (3)

Prerequisite: Admission to the Graduate Program in German or permission 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).

511. Selected Topics in German Culture and Civilization (3)

Prerequisite: B.A. in German or equivalent. Intensive studies in special topics of the artistic, intellectual, social, religious, economic, and political development of the German-speaking countries, as announced in the *Schedule of Classes*. May be repeated for a maximum of 9 units with different topics.

530./430. German Poetry (3)

Prerequisite: Graduate standing in German. German poetry from the Baroque to the present.

541./441. German Novella (3)

Prerequisite: Graduate 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.

554./454. German Literatures of the 18th Century (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 of the "Sturm und Drang." Letter grade only (A-F).

559B./459B. German Literature from 1945 to Present (3)

Prerequisite: Graduate standing in German. Significant contemporary German writers of prose, drama, and poetry.

590. Approaches to the Study of German Literature (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 with different topics to a maximum of 9 units.

599. Directed Studies (1-3)

Prerequisites: Graduate standing. Consent of instructor and chairperson or graduate advisor. Selected topics in German to be pursued in depth. May be repeated for a maximum of 6 units provided subject matter is distinct for each enrollment.

697. Directed Research (1-3)

Prerequisite: Consent of graduate advisor. Required of all candidates for the master of arts in German who do not choose to write a thesis.

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.

THE RUSSIAN PROGRAM

Program Director

Harold K. Schefski

Minor in Russian (code RGR_UM04)

The purpose of the Minor in Russian is to provide interested students with a focused program of studies in the Russian language.

The Minor in Russian is available to any non-Russian major.

Requirements

Prerequisites: RUSS 101A(4), 101B (4)

Twenty additional units, of which 12 units must be taken in upper-division course work: RUSS 201A (4), 201B (4), 310 (3), 312 (3), 314 (3), 410 (3).

Russian Courses (RUSS)

Lower Division

101A. Fundamentals of Russian (4)

Prerequisite/corequisite: Any Foundation course. For those who are beginning the study of Russian (CAN RUSS 2). Practice in grammar, reading, pronunciation, writing and conversation.

101B. Fundamentals of Russian (4)

Prerequisite/Corequisite: Any Foundation course. Continuation of RUSS 101A. (CAN RUSS 4). Practice in grammar, reading, pronunciation, writing and conversation.

201A-B. Intermediate Russian (4,4)

Oral and written practice with grammar review.

201A: Prerequisite: RUSS 101B and completion of GE Foundation requirements (or entering competency equivalent to RUSS 101B and completion or concurrent enrollment in at least one Foundation course.

201B: Prerequisite: RUSS 101B and completion of GE Foundation requirements (or entering competency equivalent to RUSS 101B and completion or concurrent enrollment in at least one Foundation course.

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: ENGL 100 or equivalent and/or 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)

A Directed Studies course designed to meet the individual needs of students.

410I. Introduction to Russian Civilization (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. An 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. This course will focus 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.

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. A written report or project may be required.

THE SPANISH PROGRAM

Program Director

Claire E. Martin

Students desiring information should contact the department office for referral to one of the faculty advisors: Credential Advisor, Graduate Advisor, Undergraduate Advisor.

A major in Spanish is a treasured possession. A second major or a minor in Spanish opens many doors, but no matter what field a student plans to enter, be it health services, business, teaching, government, law, medicine, transportation, translation, engineering, or entertainment, a familiarity with Spanish will be invaluable. Bilingualism is almost an imperative in Southern California as well as in many other parts of our country.

In addition, the program provides preparation for those who plan to pursue doctoral work at other institutions. It also provides a liberal education for those who wish to expand their knowledge of the communication process and of Hispanic literature and cultures. 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, Bilingual Concentration for B.A. in Liberal Studies, B.A. in Special Major and the M.A. in Interdisciplinary Studies.

Bachelor of Arts in Translation and Interpretation Studies

Option English/Spanish (code RGR_BA07) (120 units)

The pilot degree in Translation and Interpretation Studies, ending Spring 2006, provides students proficient in both English and Spanish with an opportunity to develop and perfect their linguistic skills and cultural knowledge to pursue a career in the field of translation and interpretation. The areas covered by the B.A. in Translation and Interpretation Studies include technical vocabulary acquisition (legal, medical, business, technical, etc.), written translation research methodology (including the identification and use of primary and secondary sources), sight translation, and consecutive and simultaneous interpretation. The training covers memorization and concen-

tration techniques in terminology acquisition and in both consecutive and simultaneous interpretation such as decalage and the incremental sentence. Instruction includes terminology and methodology resources, extensive use of the internet, court and medical transcripts and documents, video tapes, and numerous audio tapes. Students are trained in the classroom and in the new state-of-the-art simultaneous interpretation laboratory at CSULB. Students work both individually and in groups in written and sight translation, and in the consecutive and simultaneous modes of interpretation, to prepare to work in State, Federal and Immigration courts, in the medical and business sectors, in civil legal litigation, for state agencies such as the Department of Social Services, the Housing Authority and the Agricultural Labor Relations Board, the film industry, and conference interpretation. The purpose of the B.A. is to provide students with in-depth training which is at the same time extensive and varied enough to make graduates highly marketable in both the public and private sectors. The B.A. in Translation and Interpretation Studies also provides invaluable training for students pursuing degrees in Business, Chicano and Latino Studies, Criminal Justice, Finance, Real Estate and Law, Health Sciences, International Studies, Journalism, and Political Science, among many other fields.

Requirements

Prerequisites: SPAN 312/313 with a "B" or better, or instructor's consent.

Basic Core (21 units) comprised of seven specialized courses in order to meet the professional needs of students preparing for a career path that requires a solid foundation in translation and interpretation techniques and methodologies.

Translation and interpretation courses: SPAN 461, 462, 463, 464, 465, 466, 467.

Linguistics, Civilization and Literature courses: take 9 units from the following: SPAN 310, 423, 427 and 445.

Bachelor of Arts in Spanish

To prepare for a program of courses for the major in Spanish, the student is advised to keep in mind the upper-division options noted below as well as the Basic Core and Prerequisites for courses. The Spanish Program consists of a Basic Core (21 upper-division units) and an Option (9 upper-division units). Please note that all options will satisfy the single-subject credential requirements. However, the Linguistics/Language Acquisition Option is strongly recommended for students interested in the Single Subject Credential Program. For all options, at least one year of a second foreign language at the University level is required.

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. Native speakers of Spanish who have never formally studied the language are urged to take SPAN 250 (6-unit GE course).

Requirements

Students are required to take a minimum of 30 units of upper-division Spanish coursework, which must include: the Basic Core of 21 units as follows: SPAN 312 and 313, 310, 330, 341, 423, and either 430 or 445. In addition to the Basic Core, the student must complete one of the following options:

Option in General Spanish (code RGR_BA03) (120 units)

The option in General Spanish requires 9 upper division units in addition to the Basic Core. The undergraduate advisor should be consulted to ascertain the appropriate courses for this option.

Option in Linguistics and Language Acquisition (code RGR_BA04) (120 units)

The option in Linguistics and Language Acquisition is especially designed for students who are interested in teaching at the secondary or post-secondary levels or who plan to continue graduate study in Linguistics. Nine upper-division units are required from the following courses: SPAN 322, 426, 427, 424, 490, and 494.

Option in Literature and Cultural Studies (code RGR_BA05) (120 units)

The option in Literature and Cultural Studies is designed for students who desire a thorough grounding in the literature and cultures of Spain and Latin America, particularly those students who are planning on graduate study in Spanish. Nine upper-division units are required from the following courses: SPAN 428, 429, 430, 439, 441, 443, 445, 446, 490, 491, 492, 493, and 494.

Option in Translation (code RGR_BA06) (120 units)

The Translation Option introduces students to the challenges of translation per se and provides a practical grounding in various types of translation which are to be found in any work setting. In addition, it will be of value to students planning graduate work in many fields, including comparative literature and translation itself. Nine units are required, selected from the following courses: SPAN 461, 462, 463, 464, 465, 466, 467.

Additional Requirements: A minimum of one year of a second foreign language at the university level is required of all majors.

N.B.: No course being used to satisfy any requirement for the B.A. or minor in Spanish may be taken on a Credit/No Credit basis.

Minor in Spanish (code RGR_UM05)

Requirements

A minimum of 18 units in Spanish, at least 15 of which must be upper division and must include SPAN 312, 313, and demonstration of oral fluency or 314. Students must file a Declaration of Minor and receive counseling from the undergraduate advisor.

The Minor in Spanish is available to any non-Spanish major.

Single-Subject Teaching Credential, Spanish

Requirements

The same as for B.A. in Spanish.

Master of Arts in Spanish (code RGR_MA03)

Prerequisites

1. A Bachelor of Arts degree in Spanish; 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, with at least a "B" (3.0) average. 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 passed the Writing Proficiency Examination; the student has maintained at least a "B" (3.0) GPA in all work undertaken as a graduate student;
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 of approved upper division and graduate courses, with a minimum of 30 units in Spanish in the 500 and 600 series in Spanish;
2. Specifically required courses include: SPAN 524 and 650;
3. The student must take two years of one of the following languages: Italian, French, or German, or pass an examination at the intermediate level in one of those languages. A major or minor in a second foreign language may be used to fulfill this requirement, upon approval by the Department. Consult the Graduate Advisor;
4. The student must maintain a GPA of at least "B" (3.0);
5. All students must pass three-hour examinations on the Graduate Reading List in each of two areas to be selected by the student from the following: Spanish Literature, Spanish American Literature, Linguistics. (See the Graduate Advisor for the Graduate Reading List and to set up administration of the examinations. Students may take the examinations (both areas) in either April or November.)
6. No more than six units of transfer graduate credit 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 Spanish requirement for the M.A. at this University. International Programs units will be counted at the 400-level.

Minor in Latin American Studies (code HISTUM03)

The Minor offers students majoring in any subject an opportunity to supplement their education with a focus on the interdisciplinary study of Latin America. The minor's flexible program of study is ideal for students interested either in intellectual enrichment or professional development in their major. Courses used to meet this minor requirement may be counted also, where applicable, toward the General Education requirements, and the major or minor requirements of the cooperating departments.

Requirements

1. The following are the requirements for the Latin American Studies minor:
 - A. 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.
 - B. 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) 6 units. Choose from two disciplines: ANTH 323, 324; GEOG 320I; HIST 362, 364; POSC 358, 359; SPAN 445.

B. Electives: 15 additional units from the following disciplines. Students cannot duplicate courses taken in the Core: ANTH 323, 324, 345, 490*, 495*, CHLS 352, 380, 395, 400, 420, 490*, 499*; C/LT 440, 499*, ECON 490*, 499*; FEA 392C; GEOG 320I; HIST 362, 364, 366, 461, 462, 463, 466A, 466B, 466C, 490*, 495*, 498*; POSC 358, 359, 497*, 499*; SOC 341, 490*, 499*; SPAN 341; 441, 445, 492, 550, 490*, 495*

* The Latin American Studies advisor must approve Special Topics and Directed Studies courses in the area of Latin American Studies.

Spanish Courses (SPAN)

Lower Division

101A. Fundamentals of Spanish (4)

For those who are beginning the study of Spanish or who have had less than two years of high school Spanish or equivalent. Concentration on oral comprehension and speaking. (CAN SPAN 2) (lecture 3 hrs., laboratory 2 hrs.)

101B. Fundamentals of Spanish (4)

Prerequisite/Corequisite: Any Foundation course. Continuation of SPAN 101A. Concentration on oral comprehension and speaking. (CAN SPAN 4) (lecture 3 hrs., laboratory 2 hrs.)

201A. Intermediate Spanish (4)

Prerequisite: SPAN 101B and completion of GE Foundation requirements (or entering competency equivalent to SPAN 101B and completion or concurrent enrollment in at least one Foundation course). Continued development of audio-lingual skills, reading and writing. (CAN SPAN 8) (lecture 3 hrs., laboratory 2 hrs.)

201B. Intermediate Spanish (4)

Prerequisite: SPAN 201A and the completion of GE Foundation requirements (or entering competency equivalent to SPAN 201A and completion or concurrent enrollment in at least one Foundation course). Continued development of oral skills, reading and writing. (CAN SPAN 10) (lecture 3 hrs., laboratory 2 hrs.)

250. Spanish for Bilinguals (6)

Prerequisite: Near native speaker oral skills and completion of GE Foundation requirements (or concurrent enrollment in at least one Foundation course). This course has been designed to address the particular needs of the bilingual student population. Its emphasis is on the acquisition of a solid grammatical base along with the 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.

310. Introduction to Literary Analysis (3)

Prerequisite: One 300-level course in Spanish or consent of instructor. Discovery of literature as a work of art. Different levels of interpretation; complexity of structure related to content; literary appreciation.

312. Advanced Spanish I (3)

Prerequisite: SPAN 201B or equivalent. Extensive reading of Spanish writings, review of grammatical principles and a general consolidation of the four language skills: reading, comprehension, composition and conversation.

313. Advanced Spanish II (3)

Prerequisite: SPAN 312 or equivalent. Sequel to SPAN 312, with continuing emphasis on extensive reading of Spanish texts and periodicals, regular composition work based on these readings, and the development of increased mastery of the spoken language through student discussion of the readings.

314. Oral Communication (3)

Prerequisite: Upper division standing in Spanish, permission of instructor. Emphasis will be placed on small-group discussion to improve communication skills in Spanish. Intended for non-native speakers.

322. Bilingual Teacher (3)

Prerequisites: SPAN 313 or consent of instructor. Development and application of vocabulary for teaching elementary/ secondary school subject matter in Spanish; application in actual teaching situations.

330. Literary Masterpieces: Spain (3)

Prerequisites: SPAN 310 or Spanish Program Director's permission and, completion of GE Foundation requirements. Critical analysis of masterworks of Spanish literature. (Lecture 3 hours.)

335A. Business Spanish (3)

Prerequisites: SPAN 312, 313 (6 units) or instructor's consent. 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. The course is recommended for students with the appropriate level of language skills majoring in Spanish, business and international studies, Chicano/Latino studies and Economics. Letter grade only (A-F).

335B. Business Spanish (3)

Prerequisites: SPAN 312, 313 (6 units) or instructor's consent. 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. The course is recommended for students with the appropriate level of language skills majoring in Spanish, business and international studies, Chicano/Latino studies and Economics. Letter grade only (A-F).

341. Literary Masterpieces: Spanish America (3)

Prerequisites: SPAN 310 or Spanish Program Director's permission and, completion of GE Foundation requirements. Critical analysis of masterworks of Spanish American literature. (Lecture 3 hours)

423./523. Introduction to Spanish Linguistics (3)

Prerequisites: SPAN 312 and 313 or consent of instructor. This course presents an overview of the main issues in Spanish Linguistics. Selected topics from the following areas will be the focus of study: the history of Spanish language, the grammatical systems of Spanish (Phonology, Morphology, Syntax), the sociolinguistics status of Spanish in the U.S. and the teaching of Spanish as a second language. Undergraduates register for 423; graduates register for 523.

424./524. Second Language Acquisition: Theory and Practice (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 Spanish. Evaluation and development of methods, materials, and tests. Letter grade only (A-F). Undergraduates register in SPAN 424; graduates register in SPAN 524. (Seminar)

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)

Prerequisite: Consent of instructor. Study of the known points of similarity and differences between the two languages.

428. Spanish Cinema (3)

Prerequisite: Upper-division standing. This course will focus on the socio-political 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. (Seminar 3 hours) Letter grade only (A-F).

429./529. Studies in 19th and 20th Century Spanish Poetry (3)

Prerequisite: SPAN 330. The course will examine the salient poets from the last two centuries, including Rosalía de Castro, Gustavo Ado-

Ifo 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)

430. Spanish Civilization (3)

Prerequisites: Upper division standing in Spanish or consent of instructor. Characteristic features of Spanish culture with special attention to the various institutions, economic, social and cultural configurations, and the ways of thinking.

439./539. Modern Spanish Narrative (3)

Prerequisite: SPAN 330 or permission of instructor. Representative 19th and 20th century novelists. Undergraduates register in SPAN 439, graduates register in SPAN 539. (Seminar)

441./541. Studies in Nineteenth and Twentieth Century Spanish American Narrative (3)

Prerequisite: SPAN 341 or permission of instructor. Critical analysis of 19th and 20th century Spanish American prose fiction. Undergraduates register in SPAN 441, graduates register in SPAN 541. (Seminar 3 hours).

443./543. Studies in Nineteenth and Twentieth Century Spanish American Poetry (3)

Prerequisite: SPAN 341 or permission 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)

445. Latin American Civilization (3)

Prerequisite: Upper division standing in Spanish or consent of instructor. Analysis of main currents in Latin American civilization.

446./546. Studies in Spanish Culture (3)

Prerequisite: SPAN 330. This course 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. Seminar 3 hours. Course may be repeated for a maximum of 6 units. (Seminar 3 hours)

455. Hispanic Cinema of the Americas (3)

The course will focus on the development of New Hispanic Cinema as it has affected films produced in the United States and Latin America. Focusing on fourteen directors and fourteen films, we will explore major themes and trends of the New Hispanic Cinema, among them: "Nueva Ola" in Argentina, "Cinema Novo," burgeoning Cuban revolutionary cinema, and "Magic Realism" in cinema of the Southwest United States. Apart from the historical and aesthetic context of these films, we will also look at the authenticity of the work in terms of depicting the cultural, political, and social phenomena of a particular region or country. Letter grade only (A-F).

461. Introduction to Translation and Interpretation (3)

Prerequisite: SPAN 312 and 313 with a "B" or better or Spanish Program Director's consent. This course is designed to introduce the student to the basic techniques that are essential to terminology acquisition, concentration, written and sight translation and consecutive and simultaneous interpretation. Letter grade only (A-F).

462. Written and Sight Translation I: English/Spanish (3)

This course is 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 Spanish Program Director's consent. This course is 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 Spanish Program Director's consent. This course is designed to train students in forensic consecutive interpretation. Letter grade only (A-F).

465. Consecutive Interpretation II (3)

Prerequisites: SPAN 461 or Spanish Program Director's consent. This course is designed to train students in Medical, Civil Legal,

Business, Technical and State Agencies consecutive interpretation, and to introduce students to the basic techniques that are essential to terminology acquisition and to the 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 Spanish Program Director's consent. This course is 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 Spanish Program Director's consent. This course is 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. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture. See *Schedule of Classes* for specific topics. May be repeated for a maximum of 9 units with different topics. Letter grade only (A-F).

491./591. Nobel Poets and Others (3)

Prerequisites: SPAN 330, 341, or permission of instructor. Critical analysis of representative works of Nobel Poets (Aleixandre, Jiménez, Mistral, Neruda and Paz) and other significant poets (Albertik, Bécquer, Darío, García Lorca, Garcilaso, Góngora, Guillén, Vallejo, etc.) Undergraduates register in SPAN 491, graduates register in SPAN 591. (Seminar 3 hours).

492./592. Studies in Hispanic Theater (3)

Prerequisites: SPAN 330 or 341, or permission of instructor. Representative Spanish and Spanish American plays. Undergraduates register in SPAN 492; graduates register in SPAN 592.

493./593. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture. See *Schedule of Classes* for specific topics. May be repeated for a maximum of 9 units with different topics. Letter grade only (A-F). Undergraduates register in 493; graduates register for 593. (Lecture)

A. Women and War: Voices of Resistance

An interdisciplinary course which studies the autobiographical testimonies of women who have experienced war and its aftermath and how their voices have been interpreted in recent years. Included are literary, historical, sociological and psychoanalytical considerations of the impact of war on women during World War I and II, the Spanish Civil War, and confrontations in Central and Latin America. Same topic as HIST 490F, W/ST 490K. (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. Course may be repeated for 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

523./423. Introduction to Spanish Linguistics (3)

Prerequisites: SPAN 312 and 313 or consent of instructor. This course presents an overview of the main issues in Spanish Linguistics. Selected topics from the following areas will be the focus of study: the history of Spanish language, the grammatical

systems of Spanish (Phonology, Morphology, Syntax), the sociolinguistics status of Spanish in the U.S. and the teaching of Spanish as a second language. Undergraduates register for 423; graduates register for 523.

524./424. Second Language Acquisition: Theory and Practice (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 Spanish. Evaluation and development of methods, materials, and tests. Letter grade only (A-F). Undergraduates register in SPAN 424; graduates register in SPAN 524.

525. History of the Spanish Language (3)

Prerequisites: 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. (Lecture 3 hours)

527./427. Contrastive Analysis of Spanish and English (3)

Prerequisite: Consent of instructor. Study of the known points of similarity and differences between the two languages.

528. Romance Linguistics (3)

Prerequisites: SPAN 525 or equivalent. Methods used in Romance philology and linguistics; origin and evolution of Romance languages, comparative characteristics of Romance languages.

529./429. Studies in 19th and 20th Century Spanish Poetry (3)

Prerequisite: SPAN 330. The course will examine the salient poets from the 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. Studies in Golden Age Literature (3)

Prerequisite: SPAN 330 or permission of instructor. Study of Sixteenth and Seventeenth Century narrative, poetry and theater. Special emphasis on Cervantes, Garcilaso, Quevedo, Góngora, Lope de Vega.

539./439. Modern Spanish Narrative (3)

Prerequisite: SPAN 330 or permission of instructor. Representative 19th and 20th century novelists. Undergraduates register in SPAN 439; graduates register in SPAN 539. (Seminar)

541./441. Studies in Nineteenth and Twentieth Century Spanish American Narrative (3)

Prerequisite: SPAN 341 or permission of instructor. Critical analysis of 19th and 20th century Spanish American prose fiction. Undergraduates register in SPAN 441; graduates register in SPAN 541. (Seminar 3 hours.)

543./443. Studies in Nineteenth and Twentieth Century Spanish American Poetry (3)

Prerequisite: SPAN 341 or permission 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)

546./446. Studies in Spanish Culture (3)

Prerequisite: SPAN 330. This course 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. Seminar 3 hours. Course may be repeated for a maximum of 6 units. (Seminar 3 hours)

550. Studies in Colonial Spanish American Literature (3)

Prerequisite: SPAN 341 or permission of instructor. Study of Colonial Spanish American Literature from 1492-1820. Letter grade only (A-F). (Seminar 3 hours.)

560. 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. The course includes authors from both the nineteenth and twentieth centuries. (Seminar 3 hours.)

590. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture. See *Schedule of Classes* for specific topic. May be repeated for a maximum of 9 units with different topics. Letter grade only (A-F).

591./491. Nobel Poets and Others (3)

Prerequisites: SPAN 330, 341, or permission of instructor. Critical analysis of representative works of Nobel Poets (Aleixandre, Jiménez, Mistral, Neruda and Paz) and other significant poets (Albertik, Bécquer, Darío, García Lorca, Garcilaso, Góngora, Guillén, Vallejo, etc.) Undergraduates register in SPAN 491; graduates register in SPAN 591. (Seminar 3 hours.)

592./492. Studies in Hispanic Theater (3)

Prerequisite: SPAN 330 or 341, or permission of instructor. Representative Spanish and Spanish American plays. Undergraduates register in SPAN 492; graduates register in SPAN 592.

593./493. Special Topics (3)

Study of a particular aspect of Spanish literature, language or culture. See *Schedule of Classes* for specific topics. May be repeated for a maximum of 9 units with different topics. Letter grade only (A-F). Undergraduates register in 493; graduates register for 593. (Seminar).

A. Women and War: Voices of Resistance

An interdisciplinary course which studies the autobiographical testimonies of women who have experienced war and its aftermath and how their voices have been interpreted in recent years. Included are literary, historical, sociological and psychoanalytical considerations of the impact of war on women during World War I and II, the Spanish Civil War, and confrontations in Central and Latin America. (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. May be repeated for a maximum of 6 units with different topics. (Approval of Graduate Advisor and Department Chair required.)

640. Seminar in Spanish American Literature (3)

Prerequisite: SPAN 341 or permission of instructor. Study of particular period, genre or author. See *Schedule of Classes* for specific topic. (Seminar 3 hours.)

650. Critical Theory (3)

Prerequisite: SPAN 310. This course is not an introduction to literary theory, but an introduction to critical theory, i.e., the discipline which in Western countries has replaced the previous one during the past twenty or more years. We will focus on some of its major developments, and also devote a few classes to the demonstration of the practical uses of the models of reading under consideration. (Seminar 3 hours). Letter grade only (A-F).

691. Seminar in Spanish Literature-The Spanish Civil War and Its Artistic Repercussions (3)

Prerequisite: SPAN 330, 341 or permission of instructor. The course will examine creative literature written during and after the Spanish Civil War (1936-39) that deals with the war theme. It will include both Spanish and some non-Spanish writers, including Arturo Barea, Constanza de la Mora, Cesar Vallejo, Pablo Neruda, Dolores Ibárruri ("La Pasionaria"), Ernest Hemingway, Juan Goytisolo, George Orwell, and Ana María Matute. The course will also include a discussion of the historical background of the war, and some of the art and films inspired by the war. (Seminar 3 hours) Course may be repeated for a maximum of 6 units. Letter grade only (A-F).

RELIGIOUS STUDIES

College of Liberal Arts

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Edward J. Hughes

Assistant Professor

Yechiel Shalom Goldberg

Maria R. Heim

Diana Steigerwald

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Bachelor of Arts in Religious Studies (code R/STBA01) (120 units)

The department of Religious Studies educates students in the scholarly interpretation of religion. Students develop a critical and appreciative understanding of the complexity of religions and their importance in human life; the academic study of religion thus makes an invaluable contribution to historical and cultural literacy. The elements and forms of religion – texts and institutions, stories, moral values, symbols, ritual, doctrine, etc. – are studied in their cultural and historical contexts with sensitivity and intellectual precision. Students are introduced to the major religious traditions and to religion in the modern world. Religious Studies is interdisciplinary, relating world religions and the religious dimension of human life to both the humanities and the social sciences. Students interested in a degree program should apply to the department chair.

Requirements

A minimum of 36 units is required, distributed in the following way:

Core Courses: 15 units selected from the following: R/ST 100, 103, 202, 210, 301, 322, 331I, 425I, 482I, or PHIL 330.

Area courses: 15 additional upper division units from three of the following five categories:

1. *Jewish Studies*: R/ST 311, 312I, 314, 315I, 375, 376I, 490*;
2. *Christian Studies*: R/ST 312I, 322, 375, 376I, 383I, 471I, 472I, 490*;
3. *Asian Studies*: R/ST 341I, 343, 344, 351, 352, 353I, 490*, 495*
4. *Biblical Studies*: R/ST 311, 312I, 322, 375, 376I, 490*;
5. *Contemporary Religious Studies*: R/ST 302I, 308, 362I, 383I, 391I, 396*, 425I, 485, 490*, 495*

*When subject matter of special topics course is applicable, the course may be used.

Six additional units are to be selected from either religious studies courses, or AIS 335, C/LT 342, PHIL 306, 307. Six to eight units of Biblical Aramaic (R/ST 220A and R/ST 220B), Hebrew, Greek or Sanskrit may be substituted.

Minor in Religious Studies (code R/STUM01)

The Minor in Religious Studies is available to any non-Religious Studies major.

A minimum of 21 units in religious studies courses or courses from other departments approved by the Religious Studies Department.

Lower Division: A minimum of six units selected from R/ST 100, 102, 103, 202, 210, or the equivalent.

Upper Division: A minimum of 15 units including three units from each of the following groups: (a) Western Religious Thought: R/ST 311, 312I, 314, 315I, 322, 331I, 375, 376I, 425I, 471I, 472I; (b) Asian Religious Thought: R/ST 341I, 343, 344, 351, 353I. Remaining units are to be selected from Religious Studies courses and the following electives: AIS 335, ANTH 406, AIS 380, B/ST 353, C/LT 342, HIST 333, PHIL 330.

Certificate in Religious Studies (code R/STCT01)

Requirements

A bachelor's degree with a major in a traditional discipline.

*A minimum of 30 units in religious studies or courses offered in other departments approved by the Religious Studies Department.

Lower Division: A minimum of nine units selected from R/ST 100, 102, 103, 202 or 210.

Upper Division: A minimum of 21 units including one course from each of the following: (a) Biblical Studies: R/ST 311, 312I, 322, 375, 376I; (b) Western Religious Thought: R/ST 314, 315I, 331I, 471I, 472I, 485; (c) Asian Religious Thought: R/ST 341I, 343, 344, 351, 353I. A minimum of twelve upper division units from the preceding courses and the following electives: R/ST 302I, 353I, 362I, 383I, 482I, 490, 499; AIS 335; ANTH 406; ASAM 380; B/ST 353; C/LT 342; HIST 333; PHIL 330.

Master of Arts in Religious Studies (code R/STMA01)

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. Two letters of recommendation from instructors in the undergraduate major should be included.

Program 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 six 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 18 units of graduate courses, at least six of which must be in the 600 series (not including R/ST 697 and 698). All students must satisfactorily complete R/ST 501.
2. A thesis or comprehensive examination.
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 (Sanskrit, Biblical Aramaic, Hebrew, Chinese, etc.) replaces this requirement for students concentrating in Ancient Mediterranean and Near Eastern Religions or in Buddhist Studies. Exceptions to this requirement, especially for students not planning to pursue further graduate degrees, can 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.

Courses (R/ST)

Lower Division

100. Introduction to Religion (3)

Prerequisite or 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.

102. Introduction to World Religions I (Early and Western) (3)

Prerequisite/corequisite: One GE Foundation course. A survey of representative figures, themes, the schools in Western religious thought, including Judaism, Christianity and Islam.

103. Introduction to World Religions II (Eastern) (3)

Prerequisite/corequisite: One GE Foundation course. A survey of Indian, Chinese and Japanese religious thought. Emphasis will be on original texts in translations.

202. Religion and Society (3)

Prerequisite: Completion of 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.

210. Introduction to the Bible (3)

Prerequisite: Completion of GE Foundation requirements. An overview of the 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.

212. Introduction to the Qur' an (3)

Prerequisite: Completion of GE Foundation requirement. This course examines critically the Qur' an and analyzes major themes and ethico-religious concepts. It also examines Qur' anic exegeses. Sunni theologians, Shi' ite theologians, the Mu' tazilites, Sufis, and Islamic philosophers. This course offers a general introduction to the Qur' an and Islamic culture focusing on features that shape the subjective experience of Muslims.

220A. Biblical Aramaic I (3)

Prerequisites: Completion of GE Foundation requirements. Alphabets and grammar of Aramaic, the language of Jesus, will be taught. Exercises will be offered in the proper employment of dictionaries and reference tools. Readings will include: Aramaic sections of the Bible, Dead Sea Scrolls, ancient Aramaic versions of the Bible, reconstructions of the Aramaic sayings of Jesus (e.g. the Lord's Prayer), and early Christian Aramaic writings. Cultural excursions survey history and development of the ancient international language Aramaic, the varieties of Aramaic script, the discovery of ancient Aramaic inscriptions and manuscripts, and modern studies of Aramaic and its role in understanding Jesus and the Judaism of his time. This unique course-offering is highly recommended for all students of the Bible, ancient Judaism, and early Christianity. Not open to students with credit in R/ST 120A.

220B. Biblical Aramaic II (3)

Prerequisites: Completion of 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. Readings from the Aramaic portions of the Bible and related Old Aramaic documents, Dead Sea Scrolls, ancient Aramaic versions of the Bible (Targumin), reconstructions of the Aramaic sayings of Jesus, rabbinic writings, and early Christian Aramaic. Select cultural excursions into the historical impact of Aramaic and special study of unpublished manuscripts. Not open to student with credit in R/ST120B.

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: Completion of GE Foundation requirements. Study of the methods of religious studies, including the history of religions, comparative and phenomenological study of religions, textual criticism, exegesis, research methods and techniques.

302I. Religious and Social Ethical Dimensions of American Diversity (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course examines the religious and social ethical aspects of the adaptation of various American subcultures to the polyglot mainstreams of American culture.

308. Comparative Religious Ethics (3)

Prerequisite: Completion of GE Foundation requirements. A comparative introduction to some major ethical questions and modes of moral reasoning in different religious traditions. A basic theme for the course is the fundamental question of how and why ordinary people do good and evil actions. The main focus of the course is introducing the study of ethics within a global perspective, but it also serves as an introduction to each of the religions to be considered.

311. Religion and Literature in the Old Testament (3)

Prerequisites: Completion of the GE foundation requirement, completion of one or more Exploration courses, and upper division status. The Old Testament as a religious, historical and literary document with emphasis on the religion and culture of the early Hebrews. Selected books will be read each term, but prime emphasis will be put on Genesis, Exodus, the early prophets, Isaiah. The period of the conquest and the divided monarchies will be studied.

312I. Intertestament Literature, Palestine History, and Early Christianity (Dead Sea Scrolls) (3)

Prerequisites: Completion of 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, Phariseism and Sadduceism).

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.

315I. Modern Jewish Thought/ Zionism (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Will deal with the development of Jewish thought from the enlightenment and emancipation from ghettos, through attempts at assimilation, the Holocaust and the birth of the Jewish State. The development of conservative, reform and orthodox Judaism will also be discussed.

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. It introduces the history and particularity of this language as well as the standard reference tools employed in reading biblical Hebrew.

319. Biblical Hebrew II (3)

Prerequisite: R/ST 318. Biblical Hebrew II completes the instruction in the grammar of biblical Hebrew and introduces the student to the major syntactical constructions of this language. It further increases the student's biblical Hebrew vocabulary, hones skills in the use of reference books for biblical Hebrew, and allows an initial confrontation with selections from the Hebrew Old Testament itself.

322. New Testament and Earliest Christian Literature (3)

Prerequisite: Completion of 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.

331I. Islamic Religion and Culture (3)

Prerequisites: Completion of 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. Mystical Literatures of Islam (3)

Prerequisite: Completion of GE Foundation, one or more Explorations courses and upper-division standing. The course is first of all a course in human thought and the history of ideas. It covers mainly Sufism and Shi'ism and their intimate relationship. It also examines the contribution of some great Sufis and Shi'ite thinkers to the development of the inner dimensions of Islam i.e. mysticism, esoterism, and spirituality. The course provides mainly an analysis of different extracts from primary sources. Letter grade only (A-F).

341I. Buddhism (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. The Buddha; early Buddhism; the great vehicle; and the vehicle of incantations. The transmission of Buddhism to China, Korea, Japan, Southeast Asia and Tibet. Emphasis on original texts in translations.

343. Religions of China (3)

Prerequisite: Completion of GE Foundation requirements. Ancient Chinese religious thought; the penetration of Indian Buddhism and Ch'an (Zen); popular religion and the religion of the scholar-official. Emphasis on original texts in translations.

344. Religions of Japan (3)

Prerequisite: Completion of GE Foundation requirements. The transmission of continental civilization to Japan; shinto, Buddhism and Tokugawa Neo-Confucianism; Genroku culture; and the New Religions. Emphasis on original texts in translations.

351. Hinduism (3)

Prerequisite: Completion of GE Foundation requirements. An 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: Completion of 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.

353I. Religions of Southeast Asia (3)

Prerequisites: Completion of the GE foundation requirement, completion of one or more Exploration courses, and upper division status. An introduction to the religions of Southeast Asia. Ancient religion, historical transmission and adaptation of Hindu and Buddhist traditions, and recent developments in modern Southeast Asia will be discussed. Emphasis on the religious culture of mainland Southeast Asia.

362I. Religion and Psychology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course examines the religious and psychological interpretation of both individual and community religious activity and experience. (Lecture 3 hours)

375. The Historical Jesus (3)

Prerequisite: Completion of GE Foundation requirements. Historical reconstruction of the life and thought of the "Founder" of Christianity through examination of the preserved sources. Standard historical and religious-historical methods are introduced,

practiced in exercises, and integrated into the reconstruction; generally applicable historical and analytical skills are learned. Tendencies of the ancient traditions are studied in the effort to establish what can be known historically about Jesus in his contemporary cultural and political environment.

3761. Christian Origins (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Consideration of Christian origins in the first century and afterwards. In particular, consideration of the two factions in the early Church in Palestine, one following the Apostle to the Gentiles' and the other following the family line of Jesus in a native Palestinian messianic way. Faith vs works. Readings from primary sources like Book of Acts, Paul's letters, Eusebius, and apocryphal literature, and other new discoveries.

3831. Christianity and Global Ethics (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course examines the interaction of Christianity with various secular socio-economic ideologies related to the process of globalization, as well as the response of Christianity to the various ethical issues raised by the globalization of capitalism, democracy, and technology. Appropriate responses to such global issues as population growth, environmental degradation, loss of cultural identity, consumerism, and the ambiguous impact of technology will be considered.

3911. Religion and Science (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course examines the occasionally harmonious, often acrimonious relationship between religion and science. Using the methods of the history and phenomenology of religion and the history and philosophy of science, students examine, beyond the particulars of the course, 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.

401./501. Methods and Theories in the Study of Religion (3)

Prerequisite: Consent of Instructor. This course analyzes and compares methodologies used in the discipline of Religious Studies. Selected methods include: social scientific; phenomenology; structuralism; textual criticism and exegesis; personalist and normative approaches to the study of religion. Critical hermeneutics such as Marxist, Feminist, Freudian, and Post-Modern are also explored.

4251. Religion and Modern Literature (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. The role of the writer and poet in the secular modern world as religious thinker. The themes of alienation, anguish, absurdity, evil, hope, despair, mystic vision, and salvation will be among those treated.

442./542. Buddhist Ethics (3)

A systematic exploration of the place of ethics and moral reasoning in Buddhist thought and practice. The scope of the course is wide, with examples drawn from the whole Buddhist world, but emphasis is on the particularity of different Buddhist visions of the ideal human life. Attention is given to the problems of the proper description of Buddhist ethics in a comparative perspective. Letter grade only (A-F).

448./548. Theravada Buddhism (3)

A general introduction to Theravada Buddhism, a distinctive religious tradition developed in South and Southeast Asia. The primary aim of the course is to become acquainted with the main features of Theravada thought and practice, both historically and in contemporary Southeast Asian experience. We will explore what it means to be follow the "Way of the Elders," that is, to take refuge in the Triple-Gem of the Buddha, the Dhamma and the Sangha. Emphasis is given to the internal diversity and multiple voices of the tradition. No previous study of Buddhism is presupposed. Letter grade only (A-F).

456./556. Introductory Sanskrit I (3)

This course supplies an introduction to the fundamentals of the Sanskrit language. Students will learn devanagari, the script most commonly used for Sanskrit, and the grammatical foundations of the language. Our primary focus will be on grammar, reading and translation, and exercises in composition. The course is also an introduction to Indian culture through readings that tell the story of Ramayana, one of the most popular texts in Indian history. Letter grade only (A-F).

457./557. Introductory Sanskrit II (3)

Prerequisite: R/ST 456/556. This course supplies an introduction to the fundamentals of the Sanskrit language. Students will learn devanagari, the script most commonly used for Sanskrit, and the grammatical foundations of the language. Our primary focus will be on grammar, reading and translation, and exercises in composition. The course is also an introduction to Indian culture through readings that tell the story of Ramayana, one of the most popular texts in Indian history. Letter grade only (A-F).

459./559. Medieval Islamic Thought (3)

Prerequisite: Upper division standing. This course is a survey of the history of medieval Islamic thought covering mainly theology and philosophy. It examines the contribution of great theologians and philosophers to the development of Islamic thought. This course examines the adoption of Greek philosophy into Islam and the ways in which Muslims reconciled philosophy and religion. Letter grade only (A-F).

460./560. 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. Texts studied include the Gospel of the Ebionites, the Gospel of the Nazoraeans, Hegesippus, the Book of Elchasai, the Pseudo-Clementines, the Disdascalia, and remarks on the Jewish Christians in church writers and Jewish sources. Letter grade only (A-F).

4711. Early Christianity and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Development of Christianity from the New Testament period to the Renaissance with emphases on the growth of doctrine, church institutions and the role of Christianity in ancient and medieval society.

4721. Formation of Modern Christianity (3)

Prerequisites: Completion of 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.

4821. American Religious Experience (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Survey of major themes in the unique American religious experience. Topics of significance will include the adaptation of European Christianity to novel American circumstances, the proliferation of denominations and the varied religious response to a dynamic American society.

485. Contemporary Religious Thought (3)

Prerequisite: Completion of GE Foundation requirements. Critical examination of the current trends in religious understanding against a background of rapid social change. New movements and issues on the religious scene will be considered and a variety of authors representing both East and West will be studied in order to reveal the emerging patterns of religious thought.

490. Special Topics in Religious Studies (1-3)

Topics of current interest in religious studies selected for intensive development. A maximum of nine units with different topics may be used in the major. Topics will be announced in the *Schedule of Classes*.

D. Zen

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 up to a total of six units.

Graduate Level

501./401. Methods/Theories of Religion (3)

Prerequisite: Consent of Instructor. This course analyzes and compares methodologies used in the discipline of Religious Studies. Selected methods include: social scientific; phenomenology; structuralism; textual criticism and exegesis; personalist and normative approaches to the study of religion. Critical hermeneutics such as Marxist, Feminist, Freudian, and Post-Modern are also explored.

542./442. Buddhist Ethics (3)

A systematic exploration of the place of ethics and moral reasoning in Buddhist thought and practice. The scope of the course is wide, with examples drawn from the whole Buddhist world, but emphasis is on the particularity of different Buddhist visions of the ideal human life. Attention is given to the problems of the proper description of Buddhist ethics in a comparative perspective. Letter grade only (A-F).

548./448. Theravada Buddhism (3)

A general introduction to Theravada Buddhism, a distinctive religious tradition developed in South and Southeast Asia. The primary aim of the course is to become acquainted with the main features of Theravada thought and practice, both historically and in contemporary Southeast Asian experience. We will explore what it means to be follow the "Way of the Elders," that is, to take refuge in the Triple-Gem of the Buddha, the Dhamma and the Sangha. Emphasis is given to the internal diversity and multiple voices of the tradition. No previous study of Buddhism is presupposed. Letter grade only (A-F).

556./456. Introductory Sanskrit I (3)

This course supplies an introduction to the fundamentals of the Sanskrit language. Students will learn devanagari, the script most commonly used for Sanskrit, and the grammatical foundations of the language. Our primary focus will be on grammar, reading and translation, and exercises in composition. The course is also as an introduction to Indian culture through readings that tell the story of Ramayana, one of the most popular texts in Indian history. Letter grade only (A-F).

557./457. Introductory Sanskrit II (3)

Prerequisite: R/ST 456/556. This course supplies an introduction to the fundamentals of the Sanskrit language. Students will learn devanagari, the script most commonly used for Sanskrit, and the grammatical foundations of the language. Our primary focus will be on grammar, reading and translation, and exercises in composition. The course is also as an introduction to Indian culture through readings that tell the story of Ramayana, one of the most popular texts in Indian history. Letter grade only (A-F).

559./459. Medieval Islamic Thought (3)

Prerequisite: Upper division standing. This course is a survey of the history of medieval Islamic thought covering mainly theology and philosophy. It examines the contribution of great theologians and philosophers to the development of Islamic thought. This course examines the adoption of Greek philosophy into Islam and the ways in which Muslims reconciled philosophy and religion. Letter grade only (A-F).

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. Texts studied include the Gospel of the Ebionites, the Gospel of the Nazoraeans, Hegesippus, the Book of Elchasai, the Pseudo-Clementines, the Disdascalia, and remarks on the Jewish Christians in church writers and Jewish sources. Letter grade only (A-F).

590. Special Topics in Religious Studies (3)

Prerequisite: Consent of Instructor. Topics of current interest in Religious Studies selected by the faculty for intensive development. May be repeated with different topics to a maximum of 9 units. Letter grade only (A-F).

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. May be repeated up to a maximum of 9 units. Letter grade only (A-F).

599. Graduate Tutorial (1-3)

Prerequisite: Consent of Instructor. Supervised and independent study. May be repeated up to a maximum of 6 units. Letter grade only (A-F).

604. Seminar in Religion in Contemporary America (3)

Prerequisite: Consent of instructor. Advanced inquiry into aspects of religion in contemporary America, including its ethical, cultural, historical or theoretical dimensions. May be repeated, with different topics, up to 9 units. 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. May be repeated, with different topics, up to 9 units. Letter grade only (A-F). Course 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. May be repeated, with different topics, up to 9 units. Letter grade only (A-F).

690. Special Topics in Religious Studies (3)

Prerequisite: Consent of instructor. Topics of current interest in Religious Studies selected by the faculty for intensive development. May be repeated, with different topics, up to 9 units. Letter grade only (A-F).

697. Directed Research (1-3)

Prerequisite: Consent of instructor. Directed Studies to permit individual students to pursue topics of special research interest. May be repeated, up to a maximum of 9 units. Letter grade only (A-F).

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 for a total of 6 units.

RUSSIAN AND EAST EUROPEAN STUDIES

College of Liberal Arts

Director

Harold Schefski (Russian)

Department Office

McIntosh Humanities Building (MHB), Room 810

Telephone

(562) 985-8525 or 985-4317

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

Students desiring information should contact the department office for referral to one of the faculty advisors.

Graduate Certificate in Russian and East European Studies (code RGR_CT01)

Russian and East European Studies has an interdisciplinary program which offers students interested in this field the opportunity to pursue courses leading to a Certificate in Russian and East European Studies. Courses used to meet this certificate requirement may be counted also, where applicable toward the General Education requirement and the major and teaching minor requirements of the cooperating departments.

Interdisciplinary in concept, it covers the fields of anthropology, economics, geography, history, comparative literature, philosophy, political science and the Russian language.

The expanding opportunities for careers and public service in foreign policy administration, international organization, international business activities, education and information for intercultural understanding, make it useful to organize studies leading to a certificate in this ever important part of the world. This will tend to enhance the student's possibility for a career in business, education or government, and broaden the scope of understanding.

Interested students should apply to the Director, Russian and East European Studies, Dr. Harold Schefski, Department of Romance, German and Russian.

Requirements

1. A bachelor's degree with an approved major;
2. A minimum of two semesters of a Slavic language;
3. 18 units selected from four of the disciplines listed below chosen in consultation with the student's advisor.

No more than six units of any one discipline shall apply toward the certificate;

ANTH 331, 490*; C/LT 349, 428, 449; ECON 368, 490*; GEOG 318; HIST 341A, 341B, 441, 490*, 495*; PHIL 490*; POSC 306, 356, 357, 484, 497; RUSS 101A-B, 201A, 201B, 310, 312, 314, 410;

4. Cumulative GPA of 2.75 in all courses in the student's approved certificate program.

*May be taken only when course work is applicable to Russian and East European Studies. Consultation with director of the center is required.

SCIENCE EDUCATION

College of Natural Sciences and Mathematics

Department Chair

Maureen M. McMahon

Department Office

Faculty Office (FO) 5, Room 118

Telephone/FAX

(562) 985-4801/985-7164

Website

www.cnsm.csulb.edu/depts/scied

Faculty

Professors

Patrick F. Kenealy

Associate Professors

Alan Colburn

Laura Henriques

Maureen M. McMahon

Assistant Professors

Catherine Chen

Peter Hodum

Single Subject Science Credential Advisor

Laura Henriques

Graduate Advisor

Alan Colburn

Administrative Support Coordinator

Vacant

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department of Science Education is strongly committed to the improvement of teaching and learning in science at all levels, Pre-Kindergarten - University. The activities of the Department are highly diversified, ranging from its roots in teacher preparation through science education projects of national significance. Faculty of the Department of Science Education play an important role in preparing and credentialing elementary and secondary school teachers for science teaching. Significant emphasis is also placed on providing experienced teachers with continuing opportunities to refine and raise the effectiveness of their science teaching. Science Education faculty similarly work with university science department teaching associates. In all its endeavors, the Department maintains close ties with the teachers and schools of the greater Long Beach area. The Department is in the final stages in developing a Masters of Science degree for the practicing teacher of science in grades K-12.

The Department also undertakes projects aimed at pre-college students. The "Head Start on Science" project, one of only two such projects supported by the US Department of Health and Human Services, is developing a "sense of wonder" science component for 4-year old "Head Start" youngsters, their teachers and parents. Other recent projects of the Department have included: The Project to Improve Methods Courses in Elementary Science and the Minority Opportunities in Science Teaching Project (Project MOST), Long Beach Science and Math Teacher Education Partnership (LBESTEP), CSU/NASA Education Collaborative and Young Scientists' Camp. To complement their teaching activities, Science Education faculty members maintain an active program of research and are involved in a variety of local, state, and university organizations and projects to improve science and environmental science education.

The Science Education Department houses a suite of instructional classrooms and a small multimedia computer laboratory. The classrooms and lab are Internet-wired offering students interconnectivity and access to many web-based instructional materials. The Science Education Department is committed to meaningful integration of technology into the teaching and learning of science. All Science Education students are required to use multimedia tools and electronic probeware in and outside of class. The Department also maintains an extensive Science and Environmental Education Curriculum and Materials Resources Center that includes science teaching guides, textbooks, professional journals, and computer software. Students and local teachers are welcome to explore these resources during campus and day-time hours. The Department also sponsors a student chapter of the National Science Teachers Association (NSTA) known as the Association of Future Science Educators (AFSE).

Master of Science in Science Education

The M. S. in Science Education is designed primarily for credentialed K-12 teachers interested in deepening their understanding of science, education, and the teaching and learning of science. The program includes a blend of courses from the Department of Science Education, the College of Natural Sciences and Mathematics, and the College of Education. The program introduces candidates to Science Education as a field of study, with its own journals, issues, and research areas.

Option in Elementary Science Education (code SCEDMS01)

The option in Elementary Science Education is designed for teachers who are K-8 generalists. Although aimed at those with a Multiple Subject credential, the program may also be appropriate for Single Subject teachers interested in increasing the breadth of their scientific knowledge.

Students completing this option will be prepared to assume positions of greater science leadership at their schools or districts, or go on to further graduate study in science education.

Admission to the Department

Prerequisites

In addition to the prerequisites for entrance into CSULB as a graduate student stated in this Catalog under Graduate Degrees and Post Baccalaureate Studies, 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.

Students are expected to exhibit high standards of writing proficiency. Students missing any admission criteria may only be admitted after receiving the approval of a department graduate faculty committee.

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 Science Education department office:

1. Completion of 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 where the applicant is (or was) employed.
3. Transcripts (in addition to those required by the university; photocopies acceptable).

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 of 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 as a Conditionally Classified student.

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.

The Program of Study

The Program of Study includes successful completion of:

- 6 units from EDP 400, 500, 519, 595, 419, 420, 520, 523, 553, or 623 (chosen in consultation with advisor)
- Science Education core courses: SCED 550, 551, 552
- Science courses: SCED 500, 501, 502, 697
- Thesis/project: SCED 698

Advancement to Candidacy

In addition to the general University requirements stated under Post-Baccalaureate and Graduate Degrees in this Catalog, the student must have completed satisfactorily the Science Education core courses (SCED 550, 551, and 552) and established a Thesis Committee before receiving Candidate status. Upon evidence of satisfactory academic progress, the Thesis Committee will recommend the student for advancement to candidacy by forwarding its recommendation to the Department Graduate Advisor. Upon approval by the Associate Dean, the student will be advanced to candidacy.

Courses (SCED)

Upper Division

302. Elementary School Science Workshop (3)

Prerequisites: SCED 401. A practicum on the development and use of "hands-on" elementary school science teaching/learning activities, units and learning centers. (Lecture 2 hrs., workshop 2 hrs.) Course fee may be required.

401. A Process Approach to Science (3)

Prerequisites: BIOL 200; PHSC 112; GEOL 102 and 104; all with a "C" or better grade. The processes of science as they relate to the life, earth, and physical sciences. Practical approaches to understanding how science works will be modeled and integrated throughout. (Lecture 2 hrs., laboratory 3 hrs.) Course fee may be required.

403. Seminar in Integrated Science (2)

Prerequisites: Completion of all credential breadth requirements for Single Subject Teaching Credential in Science, three-fourth of the credential specialization courses, and consent of instructor. Enrollment limited to students who intend to pursue a Single Subject Credential in Science. Requires presentations, discussions, and critical evaluations by students on selected interdisciplinary topics in the sciences. Occasional field trips may be required.

404. The Nature of Science and Scientific Reasoning for Teachers (3)

Prerequisites: Completion of at least three-fourths of the credential specialization courses for Single Subject Teaching Credential in science and consent of instructor. Enrollment limited to students who intend to pursue a Single Subject Credential in Science. SCED 404 has three aims. The first aim is that students better understand the nature of science — its history, philosophy, psychology, and sociology. The second is that students better understand the methods of science and how to critically evaluate reports about scientific investigations. Finally, students learn how to apply these understandings to the 6-12 classroom. (Lecture 3 hrs.)

490. Special Topics in Science Education (1-3)

Prerequisites: Consent of instructor. Selected topics in Science Education. Course content will vary from section to section. May be repeated in different semesters to a maximum of 3 units with different topics with consent of instructor.

496. Directed Studies in Science Education (1-3)

Prerequisites: Consent of instructor. Supervised study of current topics in science education. Course may be repeated in different semesters to a maximum of 3 units with different topics.

sional literature about science teaching and learning. The course also traces the historical development of elementary and secondary science curriculum models. Students will look at the role science and education organizations have played in reforming the science curriculum, and analyze curricula from a variety of teaching and learning perspectives. Letter grade only (A-F). (Seminar, 3 hrs.)

552. Nature of Science (3)

Prerequisite: Admission to M.S. in Science Education program and SCED 550. SCED 551 is a core course in the M.S. in Science Education. This course looks at science from historical, philosophical, psychological, and sociological perspectives. The course examines perceptions of science and scientists, especially views of science in different cultures and times. The course also discusses using these perspectives to teach students about the nature of science. Letter grade only (A-F). (Seminar, 3 hrs.)

697. Directed Research (1-3)

Prerequisite: 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. Letter grade only (A-F).

698. Thesis (1-3)

Prerequisite: 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. Letter grade only (A-F).

Graduate Level

500. Life Science Applications for K-8 Teachers (3)

Prerequisites: Admission to M.S. in Science Education program and BIOL 200. This course emphasizes major themes and processes in the life sciences, focusing both on deepening understanding of these concepts and on approaches to teaching this material in the K-8 classroom. Practical approaches to developing and teaching inquiry-based/experiential learning units in biology will be modeled and integrated throughout the course. Letter grade only (A-F). (Seminar, 3 hrs.)

501. Earth Sciences Applications for K-8 Teachers (3)

Prerequisite: Admission to the M.S. in Science Education program and GEOL 102+104 or GEOL 106. This course investigates earth science topics with a focus on deepening the connections between earth science concepts and concepts of matter and energy cycling, as well as providing applications of earth science concepts and activities in K-8 classrooms and schools. Letter grade only (A-F). (Seminar, 3 hrs.)

502. Physical Science Applications for K-8 Teachers (3)

Prerequisite: Admission to M.S. in Science Education program and PHSC 112. This course investigates physical science topics with a 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.)

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. This survey course introduces students to the body of research and practical knowledge shared by the science education community. Course work includes studying and discussing articles chosen from the science education literature relevant to key issues in science education. Course requirements include attending local, state, or national science teachers conventions. Letter grade only (A-F). (Seminar, 3 hrs.)

551. Science Teaching, Learning and Curriculum Models (3)

Prerequisite: Admission to M.S. in Science Education program and SCED 550. SCED 551 is a core course in the M. S. in Science Education. The course introduces students to the profes-

SINGLE SUBJECT TEACHER EDUCATION PROGRAM

College of Education

University Coordinator

Steve Turley

Office

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(562) 985-7622

Assistant to the Coordinator

Jan Condou

Credential Advisors

Griselda Dominguez Sasayama (Languages Other Than English Education)

Dale Evans (Health Science Education)

Elisabeth Hartung (Art Education)

Laura Henriques (Science Education)

Arlene Lazarowitz (Social Science Education)

Deborah Mitchell (Music Education)

Joseph Potts (English Education)

Margaret Lichty (Home Economics Education)

Karen Hakim-Butt (Physical Education)

Angelo Segalla (Mathematics Education)

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

View the Single Subject Credential Program on-line at www.csulb.edu/depts/singsubj.

A teacher with a Single Subject Credential is authorized to teach the specific subjects named on the credential in departmentalized schools. This is commonly done in California high schools and in most California junior high and middle schools. However, a teacher authorized for single subject instruction may be assigned to teach any subject in his or her authorized fields at any grade level: pre-school, kindergarten and grades one through twelve; or in classes organized primarily for adults. The Single Subject Credential Program (SSCP) prepares university students to be credentialed in California for single subject instruction. At CSULB the program includes courses in the student's teaching subject area, in Secondary Education (EDSE), and in Single Subject Education (EDSS).

Students are able to receive information brochures by calling the Single Subject Teacher Education Program office at (562) 985-7622.

Single Subject Credential Program (code 100)

The Single Subject Credential Program is a 44 unit program comprised of one prerequisite, four co-requisites, 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 co-requisites may be taken prior to or concurrent with EDSS 300, or concurrent with the core courses. All course work must be completed prior to student teaching, except for the student teaching seminar which is taken concurrent 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.

Program Courses

Prerequisite: EDSS 300 (separate sections offered for each subject area)

Corequisites: EDP 301 or 302 or 305; HSC411B and EDP 350 and Level I technology course or state-approved exam

Core Courses: EDSE 435, 436, 457; EDSS 450

Capstone: EDSS 472 and 473 or 572 and 573

Candidates in the 10 subject area programs can meet the computer technology requirement through the following courses: Art (ART 305), English (ENGL 337), Home Economics (FCS 387), Health Science (ETEC 444), LOTE (RGR 470), Mathematics (MTED 301), Music (MUS 386), KPE (KPE 354), Science (EDSS 300C, EDSS 450C, EDSS 472), Social Science (ETEC 444).

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 Commission-approved subject matter program; (b) passing scores on the CSET or PRAXIS and/or SSAT exams; (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, 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 or acceptance in 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 as early as the junior year with a minimum of 60 units.

Requirements

1. Complete the prerequisite course EDSS 300 in the appropriate subject area.
2. Perform satisfactorily in the 45 hour field work requirement in EDSS 300.
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 attempted.
4. Complete a personal interview with program faculty.
5. Submit two letters of recommendation that speak to the candidate's potential for successful public school teaching.
6. Submit a written statement of professional goals and philosophy of education.
7. Submit an application for a Certificate of Clearance to the California Commission on Teacher Credentialing (CCTC), or provide evidence of recent fingerprint clearance.
8. Submit a tuberculosis skin test or chest x-ray taken within the previous three years. Tuberculosis clearance must be valid through student teaching.
9. Take the CBEST exam. (Passage of the exam is required to advance to student teaching.)
10. Demonstrate proficiency in reading and writing English by (1) attaining the minimum passing score of 37 on the reading portion of the CBEST exam or by (2) achieving a "C" grade or better in a course satisfying the General Education requirement in literature or philosophy and by (1) attaining the minimum passing score of 37 on the writing portion of the CBEST or by (2) passing the Writing Proficiency Exam (WPE).
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 EDSS 300 and through an oral interview with subject matter program faculty. In the case of candidates for a credential in teaching Languages Other Than English, there is a bilingual interview requirement in English and the target language.
12. Demonstrate personality and character 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 EDSS 300.
13. Submit a completed program application to the EDSS 300 instructor.
14. Complete all requirements for admission to the program unique to the candidate's subject matter program.

5 Year Preliminary Credential

Successful completion of the Single Subject Credential Program leads to the Preliminary Credential, which is valid for five years.

Requirements

1. Hold a bachelor's degree from an accredited institution.
2. Satisfy the U. S. Constitution requirement (POSC 100 or 391 or exam or equivalent course from another institution).
3. Pass CBEST.
4. Hold a Certificate of Clearance (fingerprint check).
5. Demonstrate subject matter competence.
6. Complete all prerequisite, co-requisite, core and capstone courses with a minimum grade of "C". A minimum grade point average of 3.0 must be attained in the EDSS and EDSE courses. A minimum grade of "B" must be attained in EDSS 450.
7. Demonstrate Level I Computer proficiency.
8. Complete student teaching.

Student Teaching

Student Teaching is a full day, full semester responsibility following the school district calendar. Students teach three classes which represent different aspects or levels of the single subject major. The other two periods are for preparation and observation. The university determines the specific student teaching assignment. There are a wide variety of schools and teaching situations available in the program service area representative of the diversity of the region.

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.
Updated information regarding the candidate's most recent experience, including work in EDSS 450, forms the basis of this assessment.
2. Continuing motivation for and enthusiasm toward teaching, together with those personality traits believed essential for successful teaching. Evidence includes a strong recommendation from the instructor of the 450 class 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

1. Member in good standing of the Single Subject Credential Program.
2. A GPA of 2.75 in the last 60 units, or 2.67 overall.
3. A minimum grade of "C" in each course in the program and completion of the EDSS and EDSE courses with a GPA of at least 3.0. Completion of EDSS 450 with a minimum grade of "B."
4. TB clearance (clearance must be valid though completion of student teaching).

5. Pass the California Basic Educational Skills Test (CBEST) prior to the student teaching application deadline.
6. Satisfy the subject matter mastery requirement prior to the student teaching application deadline.
7. By October 1 or March 1 of the semester prior to Student Teaching, file a student teaching application.

Student Teaching Application Process

1. Student Teaching applications are distributed at regularly held information meetings. Candidates for advancement to student teaching must attend a meeting. Meeting dates are posted outside the Single Subject Program office and are available on the website.
2. The application for Student Teaching is reviewed by the student's Single Subject major area. The Credential Center evaluates transcripts. The department then makes a recommendation to the University Single Subject Teacher Education Committee which takes final action. When approved by this committee, 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.

Professional Clear Credential

Beginning teachers have five years to obtain the Professional Clear Credential.

Requirements

1. Hold the Preliminary Credential (see above).
2. Option 1: A Commission-accredited SB 2042 Professional Teacher Induction Program (if available in the district of employment).
3. Option 2: A Beginning Teacher Support and Assessment (BTSA) Program AND the three additional requirements of health education, special education, and advanced computer technology.
4. Option 3: If neither an Induction nor a BTSA Program is available, a fifth year of university study AND the three additional requirements of health education, special education, and advanced computer technology.

Petition Process

Appeals to 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 and interviews the candidate, if necessary. After the review, the Committee renders its final decision. 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 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 (which may be done the first semester after graduation). Subject matter competence may also be demonstrated by passing the appropriate CSET or PRAXIS and/or SSAT exam. Candidates should consult the Credential Advisor in their area of interest to develop an efficient program plan.

Art Education (code 110)

Students are required to complete 30 units of core courses and an additional 36 units to provide breadth and perspective. Refer to the list of courses under the Bachelor of Arts Degree in Art (Art Education) in the Art Department section of the catalog. Consult the Art Education Credential Advisor for program information.

English Education (code 120)

All English Education students must complete the following 35-unit core: ENGL 184*, 310*, 327 (cross-listed with LING 327), 363*, 375, 410, 482, LING 339; one course from the following: ENGL 250A*, 250B*; one course from the following: ENGL 270A*, 270B*. Note that asterisked courses are 4-unit courses.

In addition to the core requirements, English Education students select an area of emphasis from the following choices. Please note that the areas of emphasis vary in the number of units they require.

Black Studies Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): B/ST 140, 343, 415, 499; select three units from B/ST 155, 201, 370; select three units from B/ST 180, 240, 340, 346.

Comparative Literature Emphasis

Students are required to complete the core of thirty-five (35) units and fifteen (15) units to provide breadth and perspective.

Breadth and Perspective (15 units): select one course from C/LT 261, 361; select three units from C/LT 230, 330A, 330B; select three units from C/LT 250, 251, 410, 412I, 451I, 461; select three units from C/LT 234, 235, 236, 403, 415I, 440; select three units from C/LT 310I, 312I, 414I, 421I, 422I, 431, 432, 438.

Creative Writing Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): select nine units from ENGL 405, 406, 407, 499; select nine units from ENGL 385, 386, 459, 463, 467A, 467B, 474, 475, 476, 477A, 477B, 478.

Journalism Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of twenty-one (21) units to provide breadth and perspective.

Breadth and Perspective (21 units minimum): JOUR 110, 120, 319, 320, 331, 430; select a minimum of three units from JOUR 300, 312, 323, 370, 422, 431, 490, 499.

Language and Linguistics Emphasis

Students are required to complete the core of thirty-five (35) units and eighteen (18) units to provide breadth and perspective.

Breadth and Perspective (18 units): select six units from LING 420, 421, 433; select six units from LING 435, 485 (or ED P 485), 486; select three units from ANTH 421 or LING 472; select three units from ENGL 435, LING 460.

In addition, this emphasis requires 12 units or equivalent of a foreign language.

Literacy and Composition Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of fifteen (15) units to provide breadth and perspective.

Breadth and Perspective (15 units minimum): ENGL 435, 436; select a minimum of six units from ENGL 309, 496, 497, LING 435, 460; select three units from ENGL 300, 317, 405, 406, 407, 417, 418.

Literature Emphasis

Students are required to complete the core of thirty-five (35) units and a minimum of fifteen (15) units to provide breadth and perspective.

Breadth and Perspective (15 units minimum): ENGL 384; select three units from ENGL 451, 452, 453, 455, 456, 458, 459; select a minimum of three units from ENGL 474, 475, 476, 477A-B, 478, 479; select three units from ENGL 318I (or FEA 318I), 385, 386, 398; select three units from C/LT 230 or any upper division English course.

Speech Communication Emphasis

Students are required to complete the core of thirty-five (35) units and twenty-one (21) units to provide breadth and perspective.

Breadth and Perspective (21 units): select six units from COMM 130, 210 and 210W, 271; select six units from COMM 331, 333, 335; select 9 units from COMM 306, 309, 355, 410, 411, 451.

Theatre Arts Emphasis

Students are required to complete the core of thirty-five (35) units and twenty-two (22) units to provide breadth and perspective.

Breadth and Perspective (22 units): THEA 101, 114A, 142, 148, 346, 374, 476; select one unit from THEA 310A or 340A.

Languages Other Than English (LOTE)

At CSULB, there are four Commission-approved programs in Languages Other Than English: French, German, Japanese, and Spanish. Successful completion of one of these programs constitutes demonstration of subject matter competence in the target language. For subject matter requirements in German, French and Spanish, refer to the Department of Romance, German, Russian Languages and Literatures (RGRL). For subject matter requirements in Japanese, refer to the Department of Asian and Asian American Studies. Candidates should see the LOTE Credential Advisor at the earliest possible date to develop a program plan.

Health Science Education (code 130)

Complete the requirements for the B.S. in Health Science with an option in School Health.

Home Economics Education (code 140)

Home Economics Education is also known in the profession as Family and Consumer Sciences Education. Students must complete the requirements for the Bachelor of Arts degree in Family and Consumer Sciences with an Option in Education.

The following general education courses are required: CHEM 100; ECON 100 and 101 or 300; ENGL 100, 101 or 300 or 317; PSY 100; SOC 100 or ANTH 120; and COMM 110.

The required Family and Consumer Sciences courses are: FCS 111, 132, 154, 233, 235, 251, 275, 296, 299, 312I, 314, 321*; 322, 326, 353, 387, 488, 492, 499, plus 12 units of one of the following concentrations: Child Development and Education Occupations (FCS 214, 414, 416A, 416B); Fashion Design, Manufacturing, and Merchandising (FCS 255, 351, 355, 455); or Foodservice and Hospitality (FCS 270, 375, 377, 464).

The professional education courses may be started as early as the junior year. Although it is possible to complete the educational sequence as part of the undergraduate degree, it is more typical to complete those courses (including student teaching) in two or three semesters after graduation. Students should consult with the Family and Consumer Sciences Education Credential Advisor as early as possible in order to design an efficient undergraduate program of study. Students may also work on a teaching credential while completing a Master of Arts degree in Family and Consumer Sciences.

Students who earn a Home Economics single subject credential will be prepared for careers in teaching youth and adults in various educational settings. Career opportunities include teachers in middle schools, junior and senior high schools, adult or career and technical education programs, and community colleges; positions in cooperative extension, government, and community agency services; and education program specialists in business, industry and government.

Mathematics Education (code 165)

The requirements listed below reflect current state standards. Advisement sheets are available in the Mathematics Department. Direct questions to the Mathematics Education Credential Advisor.

Students are required to complete the following program of twenty-one (21) lower division units and thirty (30) upper division units.

Prerequisites: Precalculus mathematics (MATH 117) or four years of high school mathematics including two years of algebra, one year of geometry, 1/2 year of trigonometry, and an additional senior-level course.

Lower Division: MATH 122, 123, 224; MATH 233; 247.

Upper Division: MATH 310, 341, 355, 361A* or 364A, 380, 381, 410, 444, MTED 301, 411; Upper division Mathematics elective (3 semester hours).

* Preferred course

Music Education (code 170)

Students are required to complete the Bachelor of Music degree with an option in choral/vocal or instrumental music that includes twenty-seven (27) core units in music education. Consult the Credential Advisor for developing a program plan.

Physical Education (code 175)

Complete the requirements for the Bachelor of Arts in Kinesiology with an Option in Adapted Physical Education, Elementary School Physical Education, or Secondary School Physical Education.

Science Education

California Single Subject credentials in science require background in all the sciences, as well as more specialized study in one discipline. For this reason, students are required to complete both Breadth and Specialization courses as outlined below.

Breadth Requirements

Required of all credential specializations: ASTR 100, BIOL 211A-B, CHEM 111A-B, GEOL 102, 104, and 160, SCED 403, and PHYS 400I. In addition, students specializing in Geosciences or Physics are required to complete PHYS 151 and 152 and MATH 122. Those specializing in either Biological Sciences or Chemistry are required to complete *either* PHYS 100A-B *or* PHYS 151 and 152, *and either* MATH 119A *or* MATH 122. It is further recommended that candidates also complete GEOL 240.

Specialization Requirements

In addition to completing the breadth requirements, students also select one of the following four science specializations: Biological Sciences, Chemistry, Geosciences, or Physics. Requirements for each of these are outlined below.

Biological Sciences (code 184)

CHEM 327, BIOL 260, 312, 340, 345, 350, and 370; *and either* BIOL 439, 447, *or* 328; *and either* MICR 300I, 302I, *or* BIOL 303. It is further recommended that candidates also complete *either* BIOL 313, 324, *or* 332.

Chemistry (code 181)

CHEM 251, 320A-B, 441A, 496, 451 *and* MATH 123; *and either* CHEM 431 *or* 441B. It is further recommended that candidates also complete *one* of the following Physical Chemistry sequences: *either* CHEM 377A-B *or* CHEM 371A-B.

Geosciences (code 182)

GEOL 273, 324, 341, 343, 428, 433, 450, *and* MATH 123; It is further recommended that candidates also complete GEOL 429 *and either* GEOL 460, 461, *or* 462.

Physics (code 183)

MATH 123, 224; PHYS 154, 155, 310, *and* 340A; *and either* PHYS 330 *or* 475-476; *and either* PHYS 380 *or* 496; *and either* MATH 370A *or* 364A.

Social Science Education (code 185)

Candidates must complete 45 units from the menu of core requirements listed below. To add breadth and perspective to the basic core, each student must complete 15 additional units in the breadth area. Consult the Social Science Education Credential Advisor for program information.

Core Requirements (45 units):

Capstone

CLA 495 (should be taken at or near conclusion of the undergraduate major)

History

HIST 211, 212, 172, 173, 396, 473. Choose one of the following courses: HIST 469 or 485A/B or 486

Geography

GEOG 100, 306

Political Science

POSC 100 or 391; POSC 215

Behavioral Science

PSY 100 or SOC 100 or ANTH 120

Economics

ECON 300

Breadth Requirements (15 units):

Candidates must choose nine units from one field listed below, and six units from a second field listed below:

1. World Perspectives
2. National Perspectives
3. State Perspectives
4. Citizenship Perspectives
5. Ethical Perspectives
6. Diversity and Equity

Breadth courses in each field must be chosen from the following:

1. World Perspectives
HIST 317, 335, 337, 338, 339, 340, 364, 382B, 383B, 385, 386, 391, 392, 394, 406A, 406B, 432, 451, 483, 491; GEOG 308I, 309I, 313, 314I, 316, 318, 320I, 326; ANTH 307I, 323, 324, 332, 333, 335, 336; POSC 353, 354, 356, 357, 358, 359, 362, 364, 366, 367; ECON 361I, 365, 368, 369, 370
2. National Perspectives
HIST 373, 375, 376, 378, 379, 380, 478; POSC 308, 420, 423, 424; ECON 360I
3. State Perspectives
ANTH 321, 322, 329; GEOG 303; 304; POSC 326
4. Citizenship Perspectives
HIST 479, 480; POSC 210, 311, 312, 412, 428
5. Ethical Perspectives
HIST 371; PHIL 160, 203, 204, 306, 307; R/ST 102, 103, 202
6. Diversity and Equity
ASAM 102, 200, 220; B/ST 120, 121, 210; CHLS 100, 101, 300, 352; HIST *469, 485A*, 485B*, 486; POSC 323; SOC 341 (same as CHLS 352); W/ST 102, 315, 320, 370, 485A* (same as HIST 485A), 485B* (same as HIST 485B)

*Cannot be used as part of the breadth requirement if this course is chosen as part of the core requirement.

Single Subject Teacher Internship

In cooperation with approved school districts, the Single Subject Program offers a Single Subject Intern Program. Since the Intern serves as the full-time teacher of record at a cooperating middle or high school, the program is limited to outstanding candidates who have exceptional skills for classroom teaching and who have demonstrated subject matter competence. Interns are generally assigned to teach full-time in a shortage field.

The intern academic program is the same as the regular Single Subject Program. Interns must complete the professional sequence prior to the culminating field experience. The culminating field experience substitutes for traditional student teaching. Interns register for EDSS 572A, B, and C (intern student teaching) and EDSS 573 (seminar) during the final intern semester. The program provides the Intern with university supervision through the EDSS 572 course. The cooperating school district provides site-based support for the Intern.

Admission Criteria

Candidates submit applications for the Intern Program for review and action by the University Single Subject Teacher Education Committee. Upon acceptance into the Intern Program, candidates must submit the state application for an Intern Credential with supporting documents and fees to the CTC through the CSULB Credential Center.

Requirements

1. Hold a baccalaureate degree from an accredited institution.
2. Be a member in good standing in the SSCP.
3. Be enrolled in at least one CSULB course.
4. Demonstrate subject matter competence.
5. Pass the California Basic Educational Skills Test (CBEST).
6. Meet the U. S. Constitution requirement.
7. Have and maintain an overall GPA of 3.0 and a GPA of 3.0 in all upper division and graduate courses in the single subject major and in the professional education courses.
8. Provide verification of a minimum of 40 hours experience with pupils in a school situation, such as serving as a teacher's aide (this may be accomplished in EDSS 300).
9. Have clearance on the CSULB speech assessment.
10. Have health clearance valid through the period of the internship.
11. Hold a Certificate of Clearance.
12. Have an offer of employment as an Intern from a participating school district.

Single Subject Education Courses (EDSS)

300A-S. Introduction to Teaching (3)

Prerequisite: Advanced sophomore or junior standing. This course introduces students to the profession of teaching in the state of California, with an emphasis on the specific subject area. It covers in an introductory fashion: the structure, organization, and culture of schools; curriculum, instruction, assessment, and classroom management primarily in secondary school settings (but in some cases, elementary settings); the history and current status of the subject area; becoming a reflective professional. Topics are contextualized in the cultural, linguistic, ethnic, and ability diversities represented in California classrooms. Prepares students for more in-depth study in subsequent courses. Submission of application to the Single Subject Credential Program (SSCP) is made during the course. Directed field work in a middle or high school (or in some cases, elementary school) required. Required first course in the professional education sequence of the Single Subject Credential Program. Three hours lecture. Forty-five (45) hour field work requirement. "B" grade or better required for admission to the SSCP. Letter grade only (A-F).

300 A. Art

300 C. Science

300 D. Health Science

300 F. Languages Other Than English: French, German, Japanese, Spanish

300 G. English

300 H. Home Economics

300 M. Mathematics

300 N. Music

300 P. Physical Education

300 S. 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, and instructional methods and strategies specific to teaching art to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Course fee required. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course 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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching science to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Lecture 2 hours; laboratory 3 hours. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

450D. Curriculum and Methods in Teaching Health Science (3) F

Prerequisite: EDSS 300D; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching health science to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course may be repeatable to a maximum of 6 units.

Single Subject Education Courses (EDSS)

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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching languages other than English to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course 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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching language, literature, and composition to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

450H. Curriculum and Methods in Teaching Home Economics (3)

Prerequisite EDSS 300H; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching home economics to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

450M. Curriculum and Methods in Teaching Mathematics (3)

Prerequisite: EDSS 300M; admission to the Single Subject Credential Program or permission of the Single Subject Credential Program University Coordinator. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching mathematics to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course 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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching music to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflec-

ive practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course 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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching physical education to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course 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. Objectives, curriculum, materials, and instructional methods and strategies specific to teaching social science to diverse student populations. Builds on prior Single Subject Credential Program courses. Situates content area instruction within the context of the total school program. Emphasizes reflective practice based on the California Standards for the Teaching Profession and state curriculum frameworks. Required prior to student teaching; recommended to be taken the semester immediately prior to student teaching. Fieldwork requirement. "B" grade or better required to advance to student teaching. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

472A,B,C. Student Teaching (5,5,5)

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 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 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. Student teachers are assigned a minimum of five periods daily for the length of the placement school's semester (approximately 20 weeks). They teach three classes representing at least two different aspects or levels of the subject. Two additional periods are for preparation, observation, and consultation with the cooperating teacher and university supervisor. Student teachers must achieve a satisfactory evaluation on the Teaching Performance Assessment in order to be recommended for the credential. Students must enroll concurrently in EDSS 473: Student Teaching Seminar. ("A" or "B" quality work required for credit). Credit/No Credit grading only. Course may be repeated to a maximum of 10 units.

473A-S. Student Teaching Seminar (2)

Prerequisite/Corequisite: Admission to the Single Subject Credential Program, or permission of the Single Subject Credential Program University Coordinator; advanced to student teaching. Concurrent enrollment in EDSS 472 (Student Teaching). Links issues of theory and practice within the context of the California Standards for the Teaching Profession. Covers curriculum, instruction, assessment, classroom management, equity and ac-

cess for all students. Looks forward to the induction phase of teaching and a career in the profession. Letter grade only (A-F). Course may be repeated to a maximum of 4 units.

- A. Art
- C. Science
- D. Health Science
- F. LOTE
- G. English
- H. Home Economics
- M. Math
- N. Music
- P. Physical Education
- S. Social Science

***490. Curriculum Topics in Selected Academic Subjects (1-3)**

Prerequisite: Consent of instructor. A study of curriculum taught in the secondary schools. Academic subject to be covered will be announced in the *Schedule Of Classes*. May be repeated under different topics but only six units with traditional grading may be applied toward advanced degrees.

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 three units.

Graduate Level

572A,B,C. Intern Student Teaching (5,5,5)

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 intern student teaching by the Credential Advisor and University Coordinator of the Single Subject Credential Program. Intern student teaching must be done in the subject that is authorized on the intern's credential. Interns contract with cooperating school districts to assume full teacher of record responsibilities. Interns must achieve a satisfactory evaluation on the Teaching Performance Assessment in order to be recommended for the Preliminary Credential. Interns must enroll concurrently in EDSS 573: Intern Student Teaching Seminar. Normally completed in a single semester. ("A" or "B" quality work required for credit). Credit/No Credit grading only. Course is repeatable to a maximum of 10 units.

573. Internship Student Teaching Seminar

Prerequisite/Corequisite: Admission to the Single Subject Credential Program, or permission of the Single Subject Credential Program University Coordinator; advanced to student teaching. Concurrent enrollment in EDSS 572 (Intern Student Teaching). Links issues of theory and practice within the context of the California Standards for the Teaching Profession. Covers curriculum, instruction, assessment, classroom management, equity and access for all students. Looks forward to the induction phase of teaching and a career in the profession. Letter grade only (A-F). Course may be repeated to a maximum of 4 units.

- A. Art
- C. Science
- D. Health Science
- F. LOTE
- G. English
- H. Home Economics
- M. Math
- N. Music
- P. Physical Education
- S. Social Science

Secondary Education Courses (EDSE)

435. United States Secondary Schools: Intercultural Education (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. Provides students with foundational knowledge of education (historical, philosophical, sociological, political) grounded in contemporary society and schools. Key concepts include: socialization, culture, cultural contact, race, class, ethnicity, exceptionality and other aspects of identity and their impact on schooling. Approved CLAD Certificate course (Domain 3). Fifteen (15) hour fieldwork requirement. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

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. 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 (15) hour fieldwork requirement. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

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 permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program. Emphasis on assessment and instruction of individuals and groups; textbook selection and evaluation; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; application of decoding skills to new and technical vocabulary and spelling patterns; transfer of primary language reading skills into English language skills; English usage in a variety of formal and informal settings; and the special reading needs of less prepared learners, accelerated learners, and English language learners. Addresses issues of diversity and equity within the context of teaching reading and writing in content areas. Includes individual/tutorial instruction of an adolescent. Minimum fifteen (15) hours of field work required. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

SOCIOLOGY

College of Liberal Arts

Department Interim Chair

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Department Secretaries

Lily Monji

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Students desiring information should contact the department office for referral to the faculty advisor:

Undergraduate Advisor

Carole A. Campbell

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The major in sociology is intended to serve as preparation for careers in teaching, delivery and administration of social and health services, urban and environmental studies, law, government service at local, state and federal levels and related occupations. The major also provides training for advanced graduate work in sociology, social work and other social sciences. Sociology is also recommended as a second major or minor for students of all other social sciences; for business; for the humanities; especially literature and theatre arts; for ethnic and area studies; for journalism and other various applied arts and sciences.

Students interested in sociology may also wish to consider the liberal studies major with a concentration in sociology. The Liberal Studies program is discussed elsewhere in this *Catalog*. Detailed information about the concentration may be obtained from the Sociology Department Office.

Sociology courses are suitable for fulfilling general education or elective requirements for students of other majors. However, lower division courses selected to fulfill the requirements of the major may not also be used to fulfill the requirements of any General Education category.

Bachelor of Arts in Sociology (code SOC_BA01) (120 units)

Requirements

Lower Division: Twelve units of lower division are required. Students must have credit for SOC 100, 142, 200, and 250. It is recommended that students take Cultural Anthropology (ANTH 120) as an elective.

Upper Division: All majors are required to have a minimum of 31 upper division units in sociology. This must include (1) at least 16 units in core courses: SOC 335I or 454, 356, 420 or 427, 455, 456; and (2) nine units in one concentration and (3) 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.

The department strongly recommends that lower division courses be completed before upper division courses. Taking the courses in sequential order will allow students to gain maximum benefit from the curriculum. Experience has shown that students who take courses out of sequence do not perform as well academically. SOC 200, Introduction to Data Analysis, and SOC 250, Elementary Statistics, should be taken before SOC 455, Methods of Social Research. Required upper division courses also should be taken in sequential order consecutively. SOC 356, Developmental Sociological Theory, should be taken before SOC 456, Modern Sociological Theory.

Concentrations

Deviance and Social Control

SOC 345, 423, 440, 441I, 448, 454*, 463, 491, 495

Interaction and Group Relations

SOC 320, 325 (or W/ST 325), 335I*, 336, 340 (or CHLS 350), 341, (or CHLS 352), 345, 346, 423, 426, 454*, 464, 492, 495, W/ST 401I

Medical Sociology

SOC 350, 423, 454*, 461I, 462, 463, 464, 466, 493, 495, H/SC 400

Research

Concentration currently not available

Social Change and Global Issues

SOC 346, 350, 372I, 410I, 420*, 427*, 449I, 450, 454*, 494, 495, ANTH or GEOG 307I, I/ST 317I or I/ST 318I, W/ST 401I

*If not taken as one of the core courses

Minor in Sociology (code SOC_UM01)

A minimum of 24 units which must include:

Lower Division: SOC 100, 142

Upper Division: SOC 335I and 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.

Courses (SOC)

Lower Division

100. Principles of Sociology (3)

Prerequisite: Completion or concurrent enrollment in a general education foundation course. Introduction to basic concepts of sociology and sociological analysis, emphasis upon group, status, role, personality, socialization, social processes, institutions, social organization and sociocultural change. (CAN SOC 2)

142. Social Trends and Problems (3)

Prerequisite: Completion of or current enrollment in ENGL 100 or PSY 130 or equivalent. Sociological principles applied to contemporary social trends and problems including family problems, health and illness, inequalities of age, gender and race, crime, drug abuse, urbanization and population growth, poverty, economic change, environmental pollution, and war and terrorism. Students are encouraged to view social problems in a larger socio-cultural context which is both historical and global. They are encouraged to think critically about the relevance of these problems to their own lives and the lives of their children. Open to non-majors for General Education credit in Category D.2.B.

161. Introduction to Latin American Studies (3)

Prerequisites: Completion of the G. E. Foundation requirement. This course offers an interdisciplinary overview of history, society, and culture in Latin America—Mexico, Central American, the Caribbean, and South America. It will examine the political, economic, social, and cultural conditions that have produced conflict, change, and continuity in Latin America over the last five hundred years. Letter grade only (A-F). Same course as HIST 161.

200. Introduction to Data Analysis (3)

A beginning course in the use of computers for accessing and analyzing data. Topics covered include principles of scientific research, data coding, entry, editing, and analysis. Students will use the Statistical Package for the Social Sciences to analyze data, and such software programs as WordPerfect to prepare research documents, and Netscape Navigator to explore the resources available on the Internet. Letter grade only (A-F).

250. Elementary Statistics (4)

Prerequisite: Knowledge of mathematical procedures usually covered in elementary high school algebra as demonstrated on a screening examination, and SOC 200. 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. (Discussion, Lab) (Not open to students with credit in HDEV 250, C/LA 250, ANTH 202, SOC 210, MATH 180, or PSY 110.)

255. Elementary Statistics (3)

Not open to students with credit in C/LA 250, HDEV 250, MATH 180, or PSY 210. Prerequisite: Knowledge of mathematical procedures usually covered in elementary high school algebra and SOC 200. Covers the Concepts and techniques of descriptive and inferential statistics and statistical reasoning as applied to social research. Focuses on the understanding of statistical measures and the assumptions underlying them. Includes use of interactive computers. 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.

317I. Problems in International Social Conflict (3)

Prerequisites: Completion of the GE Foundation, one Explorations course, and upper division standing. An interdisciplinary, social-scientific analysis of the causes, human costs, and possible remedies of social conflict in the world today. Topics may include ethnocentrism, nationalism, globalization, trade and aid, economic development, poverty and inequality, the environment, war and civil unrest, and ideological, ethnic, gender, and religious conflict. Special attention to the spread of democracy, the emergence of global social movements, and new forms of civil society and social solidarity. Letter grade only (A-F). Same course as I/ST 317I.

318I. Cases in International Social Conflict (3)

Prerequisites: Completion of the GE Foundation, one Explorations course, and upper division standing. An interdisciplinary, social-scientific analysis of the causes, human costs, and possible remedies of social conflict in the world today. Case studies will consider factors such as globalization; technology; economic development; trade and aid; population growth; immigration; ideological, religious, ethnic and gender conflicts; war and civil unrest. Special attention to human rights, democratization, global citizenship, and environmental sustainability. Letter grade only (A-F). Same course as I/ST 318I.

320. The Family (3)

Prerequisite: SOC 100 or consent of instructor. Family as a social institution in various cultures with stress on the American family systems. Analysis of forces producing change, organization and disorganization of family systems.

325. Sociology of Women (3)

Socio-cultural position of women; a brief history of women's role and status; societal attitudes toward women's place in society. Open to both men and women. Same course as W/ST 325.

335I. Social Psychology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Examines social processes in personality development and the socialization process whereby the individual is integrated into social groups. Includes social influence of family, peers, reference groups and sub-cultures. Examines the impact of primary groups, social organizations and mass media on attitudes and behavior. Not available to students with credit in PSY 351.

336. Sociology of Small Groups (3)

Prerequisite: SOC 100. Designed to give theoretical and practical understanding of sociological concepts and principles found in the dynamics of small groups, research and theory, the individual in a social situation, the group as a system of social interaction, leadership, methodology, and the small group approach to a problem.

340. The Latino Population in the United States (3)

Survey of the most recent socio-economic information on "Hispanics", issues of immigration and settlement patterns, employment and income, family, language and culture will be examined. Particular attention will be paid to the changing points at which racism has intersected with factors of class and gender. This is a comparative course designed to highlight heterogeneity of the larger Latino aggregate population. Same course at 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 of California: Salvadorans, Guatemalans, Puerto Ricans, Cubans, etc. Not all groups will necessarily be dealt with each time the course is offered. Similarities with and differences from the Mexican-American community will be examined. Same course as CHLS 352.

345. Juvenile Delinquency (3)

Juvenile delinquency as a recent social "invention;" extent and distribution; major explanatory theories ranging from classical to radical views; societal reaction; the juvenile justice system with emphasis on the contemporary trend toward diversion programs.

346. Race, Gender and Class (3)

Prerequisite: Completion of the G.E.Foundation. This course examines the experiences of gender, race and class in diverse groups and populations. An assessment is conducted of the institutionalized systems of sexism, racism and classism and of the economic and political structures and social processes which maintain these systems.

350. International Population Problems (3)

Presents the basic demographic variables (fertility, mortality and migration) and methods (vital statistics and census). Historical and current trends and problems in world population composition, growth and movement are examined with particular attention to social processes.

356. Development of Sociological Theory (3)

Prerequisite: 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.

372I. Living in Space (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Human physical and social adaptations to living in space habitats in Low-Earth Orbit or at key transfer points (such as L5) elsewhere in the solar system. Analysis of psychological reactions to weightlessness and disruption of normal daily cycles and resulting changes in patterns of activities and communication. Effects of changing reference group identification from a nationality or ethnic group to humanity as a whole. The essentials of life support including the production of consumables and protection from space hazards are delineated. Also discussed are recruitment, management of space missions, and political organization of permanent space facilities. A special focus is given to cultural changes associated with spending all of one's time with the same people, such as more symbiotic and less exploitative patterns of interaction and enhanced gender and age equality.

374I. Solar System Habitation and Development (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Dynamics of settlements on the Moon, on Mars, in the asteroid belt, and on the largest satellites of Jupiter and Saturn. Expanding the resource base for humanity allows economy-of-scale sharing to supersede zero-sum economic competition. Discussion of the implications of the common-heritage-of-mankind principle embodied in space treaties and the declining significance of nation states for space settlers. Analysis of available propulsion systems and mission trajectories to determine probable structure of transportation vessels and limitations this imposes on initial settlements on various new worlds. Special attention to the enhanced feasibility of space missions utilizing lunar resources, the terraforming potential of Mars, and the type of society which may develop in these locations.

376I. Interstellar Migration (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Habitation potential of the nearest Sun-like stars and feasibility of reaching them by means of multigenerational space arks. Analysis of basic evolutionary processes favoring humane characteristics in any species capable of a technological civilization: Mate selection (among those where language has endowed culture with an overriding significance for survival) will reinforce humane traits which make it possible to get along with a spouse during the long childhood that any culture-dependent species must have. Implications of assured survival for humanity and possibility of contacting alien civilizations. Special emphasis on extrapolating the development of human society in the context of our expansion into the Alpha Centauri system and beyond.

410I. Social Ecology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Analysis of interdependencies of elements of populations, environment, technology and social organization. Examines socio-ecological relationships currently and in historical perspective, in simple and complex societies. Presentation and analysis of world and U.S. problems in social ecology. A field research project will be required.

420. Social Stratification (3)

Prerequisite: SOC 100. Characteristics and functions of social stratification especially in the United States. Different theoretical perspectives, how social class affects the opportunity structures, for income, upward mobility and various measures of "the good life" in America today.

423. Child Abuse and Prevention (3)

This course will examine child abuse as a social problem; its history and causal factors, including social change and changing family patterns. Intervention practices, including identification and investigation, social services and court intervention will be reviewed, especially the roles of health professionals, criminal justice and corrections personnel, social workers and educators. Finally, policy implications will be examined, including the role of concerned citizens and child advocates. (Discussion/Seminar) Same course as SW 423.

426. Sociology Sex Behavior (3)

The social context of human sexuality effects of socialization, social class, occupation and religion on sexual attitudes and behavior.

427. Social Order and Social Change (3)

Prerequisite: SOC 100 and upper division status. Introduction to classical and recent analysis of social order and social change. Study of institutions and organizational structure of social systems in the past and present and their effects on human life.

440. Sociology of Deviance (3)

Prerequisite: SOC 100. Sociological approaches to the study of deviance; a varied look at behaviors, beliefs, physical appearance, emotion, and medical, legal, media influences in defining deviance; central questions include: How do definitions of deviance change? What processes are involved in a person defining him/herself as a deviant? What role do the central institutions of society play in the perception and definition of deviance? (Lecture 3 hours.)

441I. Criminology (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Study of the major theoretical approaches to crime, e.g., sociological, psychological, psychiatric, biological. Emerging interdisciplinary approaches to crime. Responses to crime and criminals, e.g., prisons, jails, death penalty, self-help, psychotherapy, social reform, media. Types of criminal behavior. Victims of crime. (Lecture/Discussion.)

448. Impersonality, Violence and Survival: An Analysis Through Film (3)

Exploration through film of the societal conditions that facilitate impersonality, and alienation and ultimately violence in modern society. The study of the struggle of the individual to survive, both physically and psychologically, in modern society. Focus on attempts of individuals to transcend social barriers. Course does not include exploitation films but rather films that provide a serious commentary on the nature of modern society. Not open to students with credit in this subject under SOC 490. (Discussion)

449I. Sociology of Political Rights (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Examination of the nexus between the political process and legal institutions with a focus on how the sociology of law provides a different perspective than the legal doctrines set forth in published judicial opinions. Emphasizes the development of analytical abilities which are useful to students anticipating a career in the law or other policy-making fields.

450. Marxist Sociology (3)

Analysis of human behavior, society and social change from a Marxist perspective.

454. Qualitative Methods of Social Research (4)

Prerequisites: SOC 100, SOC 250, and one upper division course in sociology. Review and critique of principles and essential features of classical and contemporary qualitative studies. Examination of the influence of symbolic interactionism and its derivatives. Topics covered: research design, including use of unobtrusive measures; modes of participant observation; interviewing techniques; limitations of "snowball" and other convenience sampling techniques; analysis and interpretation of qualitative data. Field assignments and an individual student research project are required. (Lecture 3 hours, laboratory 2 hours.)

455. Quantitative Methods of Social Research (4)

Prerequisites: SOC 100, 200, 250 and one upper division course in sociology. Topics that will be covered are: research design, including operationalization, measurement, scaling, reliability, validity and sampling; techniques of data collection and analysis; and report writing. Use of the computer and an individual student research project are required. (Lecture 3 hours, laboratory 2 hours) Letter grade only (A-F).

456. Modern Sociological Theory (3)

Prerequisites: SOC 100, 356 and one other upper division course in sociology. Recommended: courses in the philosophy of science and research methods. A critical review of schools of sociological thought from the 1930's to the present. A minimum of three major schools such as functionalism, interactionism (dramaturgy, ethnomethodology, humanistic post-structuralism), conflict, exchange, and system theory will be covered in depth and considered in relation to the nature of theory construction. Intended primarily for majors in this field. Letter grade only (A-F).

461. Alcohol and Society (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Recommended: an elementary statistics course. Epidemiological and sociological approaches to the study of alcohol use and abuse; sociocultural correlates of alcohol use as disclosed by national and regional surveys; effects of alcohol use on physical and mental health; the role of government and other organizations in the prevention and treatment of alcohol abuse.

462. Medical Sociology (3)

Prerequisite: Completion of the G.E. Foundation. Epidemiological and sociological approaches to the study of health and illness; patterns of physical and mental disease; patient and physician perspectives on the development of disease; causes of stress and coping repertoires; types of adaptation of the chronically ill; health care delivery and utilization, particularly in the United States; and interaction of physician, nurse, therapist, health administrator, social worker, patient, and family members.

463. Mental Illness and Society (3)

Prerequisite: SOC 100. Epidemiological and sociological approaches to the study of mental health and illness; prevalence and incidence of mental disorders as disclosed by community and national surveys; effects of family history, work experience and life-change events on various facets of intellectual and affective functioning; the social and legal status of the mental patient; the role of government and other organizations in the prevention and treatment of mental illness.

464. Aging and Society (3)

Prerequisites: SOC 100 or SOC 142. This course examines aging and the life course. It explores how the aging process is influenced and shaped by societal forces. The course emphasizes adult development and life course transitions. The social epidemiology of the aging process is covered through an examination of the relationship between age status and other variables, including gender, race, social class, marital status, and health status. Dimensions of age-based stratification and surrounding social policy issues are explored.

466. AIDS and Society (3)

Prerequisites: SOC 100 or 142 or PSY 100. Recommended: BIOL 100 or 200 or MICR 100 or 101. Places the contemporary disease, acquired immuno-deficiency syndrome (AIDS) in sociological perspective. Covers history, etiology and epidemiology of AIDS. Includes biomedical and sociological research on AIDS. Focuses on behavioral aspects and societal impact of the AIDS epidemic. Letter grade only (A-F).

470. Science and Religion in Biography (3)

Prerequisites: ENGL 100 and permission of instructor. Critical comparison of the theories, doctrines and methodologies of religions and quasi-religions in contrast to all the natural sciences including the social and behavioral sciences. Sources of bias in different methods of inquiry (scientific, humanistic and religious) will be examined through classical and contemporary case material, focusing on biographies, with a view toward illuminating the

proximate objectives of each mode as well as its ultimate aims. Effectiveness of these alternative approaches to human understanding will be considered in relation to achieving self integration.

490. Special Topics in Sociology (1-3)

Topics of special interest in sociology selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units.

491. Special Topics in Deviance and Social Control (3)

Topics of special interest in Deviance and Social Control selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units (Discussion.) Letter grade only (A-F).

492. Special Topics in Interaction and Group Relations (3)

Topics of special interest in Interaction and Group Relations selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units (Discussion.) Letter grade only (A-F).

493. Special Topics in Medical Sociology (3)

Topics of special interest in Medical Sociology selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units (Discussion.) Letter grade only (A-F).

494. Special Topics in Social Change and Global Issues (3)

Topics of special interest in Social Change and Global Issues selected for intensive study. Topics will be announced in the *Schedule of Classes*. May be repeated with different topics to a maximum of 6 units (Discussion.) Letter grade only (A-F).

A. Sociology of Migration and Immigration

495. Internship (1-4)

Prerequisites: SOC 100, 142, 335I, junior or senior standing, consent of instructor. Supervised field experience in public and private agencies, relating sociological principles to community situations. Designed to provide career-related work experience in both research and applied fields. Students may enroll for 1-4 units depending on field assignment and time required. May be repeated for a maximum of six units. (6-10 hours per week field experience.)

496. Field Practicum (1-3)

Prerequisites: SOC 495. This course is a continuation of the Internship course (SOC 495.) Students who continue working at an agency in the community will conduct one or more special projects for that agency. Students in the practicum will meet as a group to discuss the progress of their projects and will submit papers which summarize their experiences in carrying out these projects. Students may enroll for 1-3 units depending on field assignment and time required. May be repeated for a maximum of four 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 permission of instructor. Conducting an optional discussion section, assisting an instructor in class exercises, projects or small group discussions, or tutoring individual students in special sessions. Peer facilitation activities will be guided by meetings with the supervising faculty members and supplemented by reading and writing assignments. May be repeated for a maximum of six units. Letter grade only (A-F).

499./599. 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 4 units. In exceptional cases, may be repeated to a maximum of six units when approved by the department. Letter grade only (A-F).

Graduate Level

599./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 4 units. In exceptional cases, may be repeated to a maximum of six units when approved by the department. Undergraduates who have completed more than 3 units of SOC 499 may not enroll in SOC 599. Letter grade only (A-F).

SPORTS, ATHLETICS AND RECREATION

University Programs

Director

Bill Shumard

Telephone

(562) 985-4655

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The University sponsors a complete athletic program. The Department of Sports, Athletics, and Recreation is the administrative unit responsible for the supervision of intercollegiate athletic programs, the intramural program, the sport clubs, recreation clubs, and recreational fitness for students, faculty and staff.

The department sponsors a diverse program of intercollegiate athletics for men and women. Both programs compete under the rules of the National Collegiate Athletic Association and the Big West Conference, maintaining membership in both organizations. Women's varsity sports are basketball, golf, cross country, soccer, tennis, track and field, volleyball, water polo and softball. Men's varsity sports are basketball, baseball, 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, SAR, (562) 985-1904.

The intramural program offers all students the opportunity to play in a wide range of sports and activities. The program includes 25 different activities. To receive credit for this program students may enroll in SAR 200. Students must participate in a minimum of three (3) different intramural tournaments or leagues per semester. As an alternative to direct participation, students can earn class credit by officiating 15 intramural games per semester. Team activities are scheduled at varied times. League competition is available in 16 of the activities for men, women and co-educational participation. Students enrolled in the class must contact the Recreational Sports office to sign up for their activities. Upon completion of each activity, the student must notify the Recreational Sports office of their participation.

Students may participate in any of the club sports activities which are partially funded by the Associated Students, Inc., and administered through the SAR Department. These sports are: Aikido, alpine ski-snowboard, archery, bowling, crew, ice hockey, Karate Do, outdoor adventure, rugby, sailing, Shotokan Karate, soccer, surfing, Tae Kwon Do, triathlon, volleyball (men's), ultimate frisbee and water ski. Students registering for SAR 210 must attend regular practices and competitions, assist the club with fund raisers and adhere to the rules and regulations. For information on practice times and meeting locations, contact the individual club coach or president. Visit the Recreational Sports web site (recsports@csulb.edu) or visit the office at PE Bldg., room 20. In addition to participation in club sport activities, students may also receive credit for leadership training and service performed with any university sponsored program in which club sports is promoted.

Students may apply no more than four (4) semester units of lower-division SAR courses toward the baccalaureate degree within the 20-unit maximum on activity units generally, except that the combined total of lower-division SAR activity

units must not exceed four (4) units and the total of lower-division KPE activity units must not exceed eight (8) units. Upper-division SAR courses, with the exception of SAR 325, may be taken one time only and not in conjunction with the lower division SAR courses. SAR 325 may be repeated for credit to a maximum of four (4) semester units and may be taken in conjunction with any other SAR course.

The California State University is committed to providing equal opportunities to men and women CSU students in all campus programs, including intercollegiate athletics.

Courses (SAR)

Lower Division

200. Intramural Activities (1)

210. Sport Clubs/Leadership (1)

Participation or competition in sport clubs as conducted under the respective club/team policy or leadership opportunities as outlined by the Recreation Director. Enrollment subject to approval by the coach of the sport or the Recreation Director. Athletes enrolled who fail to qualify for the squad must withdraw from the course. It is the responsibility of the student to contact the representative of each of these teams regarding practice times and eligibility requirements. These courses may be repeated for credit to a maximum of four (4) units. Credit/No Credit grading only.

- A. Archery
- B. Crew
- C. Cycling
- D. Ice Hockey
- E. Martial Arts
- F. Rugby
- G. Sailing
- H. Ski and Snowboard
- I. Soccer
- J. Water Ski
- K. Surfing
- L. Leadership
- M. Triathlon

260-299. Intercollegiate Sports (1)

Competition in NCAA-regulated major and minor sports. Enrollment subject to approval of the coach of the sport. Athletes enrolled who fail to qualify for the squad must withdraw from the course. These courses may be repeated for credit to a maximum of four (4) units. Credit/No Credit grading only.

- 261. Women's Softball (1)
- 262. Men's Baseball (1)
- 263. Women's Basketball (1)
- 264. Men's Basketball (1)
- 265. Women's Track and Field (1)
- 266. Men's Track and Field (1)
- 269. Women's Volleyball (1)
- 270. Women's Water Polo (1)
- 271. Men's Water Polo (1)
- 272. Men's Volleyball (1)
- 275. Women's Golf (1)
- 276. Men's Golf (1)
- 277. Women's Tennis (1)
- 281. Women's Cross-Country (1)
- 282. Men's Cross-Country (1)
- 284. Women's Soccer (1)

Upper Division

319. Theory and Practice of Minor Intercollegiate Sports (2)

320. Theory and Practice of Major Intercollegiate Sports (2)

325. Student-Athlete Leadership Development and University Service (1)

Prerequisites: Upper division standing. Permission to register needed from instructor. Must be an official member of an NCAA (National Collegiate Athletic Association) Intercollegiate team at CSULB. This course is designed to help student-athlete juniors and seniors hone their communication and facilitation abilities to better function within groups, the community, and in their prospective careers. In addition to focusing on skills needed in any people dynamic and group process, information on academic, athletic, and social development of student-athletes, and how a peer mentor can positively impact that development will be featured. Heavy emphasis will be placed on the experiential component of learning. This course may be repeated for credit to a maximum of four (4) units. This course may be repeated for credit to a maximum of four (4) units and may be taken in conjunction with any other SAR course.



STUDENT SERVICES AND CAMPUS LIFE

Academic Advising Center

The Academic Advising Center, located in Library East room 124, serves students who seek information and advice concerning General Education requirements, electives, University rules and regulations, graduation requirements, academic probation, and disqualification and academic appeals. The Academic Advising Center is the "home base" for all undeclared students, including signature authority on all university-related documents. The Academic Advising Center also presents the Parent Orientation Program (POP) as well as the Strategies for Academic Success Program and the mandatory Advising Program for Freshmen.

Students are seen on an appointment basis. Service is provided by staff and faculty.

The Academic Advising Center is located in Library East, room 124. The telephone number is (562) 985-4837. The Center is open for advising Monday - Thursday from 9:00 a.m. - noon and 1:00 p.m. - 5:00 p.m., and Friday from 9:00 a.m. - noon. Call for evening appointment availability. Hours may vary during the holidays and summer. For POP information, call 985-5458.

Career Development Center

The Career Development Center provides services that prepare and assist students and alumni in their transition from the University to professional careers commensurate with their interests, abilities, aspirations and educational attainment.

Career Planning facilitates a student's definition of his/her personal career goals and objectives based on an understanding of one's self and the world of work. The program provides students the most current career data and information delivery systems.

Career Placement

Experienced counselors assist students in developing effective job seeking skills through one-to-one counseling and workshops in the areas of resume writing, interviewing techniques and job search techniques. Counselors also provide assistance with other facets of the job search process including such topics as networking, accepting or rejecting a job offer, and negotiating a salary.

The Career Development Center receives over 15,000 job listings every year for positions in the areas of business, industry, government, health and human services. Current listings are maintained for student use in the Career Resource Center.

The Center also offers an On-Campus Interview Program for graduating seniors and graduate students. Through this program more than 140 employers visit the campus each year to conduct interviews. The employment opportunities in this program are generally in the areas of accounting, banking, computer science, engineering, finance, government, general management training, insurance, retail management, sales and marketing.

Various campus-wide special events take place every year which offer an opportunity for students to meet employers on

a face-to-face basis. For specific information on annual events such as Career Day, Accounting Recruiting Day, and Job Fair, go to the Career Development Center Website at www.careers.csulb.edu.

A 24-hour, on-line job listing service provides students with access to all of the part-time and full-time job vacancies received by the Center. Visit the Career Development Center for instructions or go to the Center's web site at www.careers.csulb.edu.

The Center is open Monday through Thursday 8:00 a.m. to 8:00 p.m. and Friday 8:00 a.m. to 12:00 p.m. The Center is located in Brotman Hall 250, (562) 985-4151.

Teacher and school administration candidates receive assistance through the Educational Career Services Office in the College of Education. Call (562) 985-5772 for information on the services offered.

Cooperative Education (Co-Op)

Cooperative Education internships offer students paid work experience in business, industry, government and the non-profit sector. This practical and professional work experience is directly related to a student's academic major or career goal. Students may alternate full-time work periods with full-time academic periods or they may work part-time while simultaneously attending the University. Upper-division Co-Op courses are available for up to 6 units of elective academic credit.

Educational Participation in Communities (EPIC)

The Educational Participation In Communities (EPIC) program provides volunteer internship opportunities for students who wish to participate in career-related field experience that complement their classroom study. EPIC internships are available with organizations and agencies in the non-profit sector. EPIC participants may qualify for up to three units of elective academic credit that maybe repeated for a total of six units. Contact the Career Development Center at 562/985-4151 for more information.

Comprehensive Services

Comprehensive Services is a Career Development Center program designed to help students with disabilities meet the challenges of career planning and job placement. A student with a visual, hearing or speech impairment, a learning disability or limited mobility can learn strategies in this program that will help build bridges to meaningful employment. For information about Comprehensive Services call 562/985-8468, log onto www.careers.csulb.edu or stop by Brotman Hall 250.

Counseling and Psychological Services

Counseling and Psychological Services (CAPS) offers a strong array of services in direct support of helping students achieve a satisfactory and meaningful academic experience. Staff members of CAPS are trained in applied psychology and student development services delivery at the doctoral level. Staff members are skilled in assisting students to trans-

late their individual personal development, career development, and previous educational experience into optimal academic achievement and collegiate life experience.

Students are seen at CAPS by an intake counselor. Psychologists are assigned to students based on the type of problem expressed and/or identified in the initial review. Most individual counseling is short-term and lasts three to five sessions. The staff is also trained to address complex types of career and personal problems that may require more extensive counseling. Crisis intervention services are available on an immediate basis.

An extensive group counseling program exists for specific kinds of counseling issues such as shyness or interpersonal skill development. The mini-workshops offered on campus acquaint students with our focus on enhancing various life skills such as assertiveness and time management. The Center is especially dedicated to working with students from highly diverse backgrounds.

CAPS is open from 8:00 a.m. to 5:00 p.m. Monday through Friday and is located in Brotman Hall 226. The telephone number is (562) 985-4001.

Disabled Student Services

Information regarding services available to students with disabilities may be obtained from Disabled Student Services (DSS), Brotman Hall 270, and (562) 985-4501.

DSS provides appropriate services for students with disabilities, including registration assistance, note-taking, sign-language interpreting, reading, test proctoring, academic advising and scholarship information. Other program components include the High Tech Computer Center for the Disabled, Stephen Benson Learning Disability Program and the WorkAbility IV Program. In conjunction with the Career Development Center, DSS/WorkAbility IV provides career planning, placement and job search assistance. Call (562) 985-8058 for more information.

Clients of the Department of Rehabilitation may call to verify the receipt of authorization for fee payment at this office. DSS also assists with disabled parking. Call (562) 985-4501 for more information.

It is recommended that students with disabilities attempt to modify their schedules, as necessary, to lessen the impact of a disability. However, students with disabilities may request to enroll in a unit load commensurate with their ability. Reduced unit load is defined as less than 12 units for undergraduates and less than 8 units for graduates. Such requests must be made to DSS prior to each semester affected. If approved, the student will be entitled to all benefits, services and activities governing by the University 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.

Educational Equity Services

The Office of Educational Equity Services (EES) assists in the admission and retention of first generation college students and academically and economically disadvantaged students some of whom might not otherwise be enrolled in the University. Programs currently under EES include the College Assistance Migrant Program (CAMP), Educational Opportunity Program, Summer Bridge Program, and the federally spon-

sored TRIO programs, Educational Information Services/Talent Search, Student Support Services Program, McNair Scholars Program and Upward Bound.

College Assistance Migrant Program (CAMP)

The College Assistance Migrant Program (CAMP) is designed to serve students who themselves or whose parents are migrant or seasonal farm workers. Work may include production, transportation, packaging or canning of crops, dairy products, poultry, livestock, cultivation or harvesting of trees (nurseries), fishing or fish farming. Students who have participated in programs under the Job Training Partnership Act also qualify for CAMP. The goal of CAMP is to provide outreach and recruitment services to eligible students by assisting them in completing their admissions and financial aid applications. Also offered are parent workshops on motivating their children to enroll in and graduate from college.

The ultimate outcome of CAMP is to provide migrant students with the necessary support services to help them transition easily during the first year in college. The project provides a student-centered array of academic and personal support services geared toward enhancing each student's learning opportunities and quality of life. Also provided is tutoring, academic-skill building instruction, peer and faculty/staff mentoring, assistance with registration, a grant if eligible, exposure to cultural events, and academic programs not usually available to migrant youth. The CAPM office is located at Liberal Arts 3 room 202 and is open from 8:00 a.m. to 6:00 p.m., Monday through Thursday and 8:00 a.m. to 12:00 p.m. on Fridays. The telephone number is (562) 985-2006 or (562) 985-2001.

Educational Opportunity Center

The Educational Opportunity Center is a federally funded college dissemination program. The program is housed at the California State University, Long Beach Research Park, 1924 Technology Place, Long Beach, California (near the intersection of Pacific Coast Highway and Santa Fe Avenue).

The goal of EOC is to increase the number of qualified adults enroll or continue a postsecondary education program. Participants are required to be at least 19 years old, U.S. citizen or permanent resident, reside in the target area, low income and or first generation. The program provides academic advisement, financial aid information, postsecondary educational opportunities, career advisement, assistance in completing college admissions, testing and financial aid applications, and provides college admissions and financial aid workshops.

Educational Information Services/Talent Search

Educational Information Services/Talent Search is a federally funded program housed at California State University, Long Beach. Its purpose is to identify, select, and assist low-income, first generational individuals between the ages of 12 to 27 to continue in and graduate from secondary school and enroll in a postsecondary educational program. Services offered include postsecondary admission and application assistance, financial aid information and application assistance, academic advising, and career exploration and planning.

Educational Opportunity Program (EOP)

The Educational Opportunity Program (EOP) is committed to increasing access to higher education for California residents who are historically low-income and first generation college students. An EOP student has the potential to perform

satisfactorily in the CSU, but has not been able to realize this potential because of the lack of economic and educational resources. The Program's goal is to meet the educational needs of the students by providing admissions and enrollment assistance, financial support and academic and personal support services throughout their career at the university.

Student Support Services Program

Student Support Services Program is a program designed to assist eligible students in achieving their maximum potential in higher education. The eligibility requirements for participation with the CSULB Student Support Services Program are U.S. citizen or permanent resident enrolled at CSULB, low income and/or first generation college students OR physically or learning disabled students and demonstration of an academic need. The Program provides learning skills workshops, academic advising, financial aid application assistance, tutorial services, career exploration, preparatory workshops for the Writing Proficiency Examination and personal and social counseling.

McNAIR Scholars Program

The McNAIR Scholars Program provides academic support services, research opportunities and involvement in scholarly activities for 25 low-income, first-generation college students to increase their likelihood of enrollment and success in doctoral programs. The program consists of the Summer Research Internship, which concentrates on a research project to be conducted by the McNAIR Scholar with the guidance of his/her faculty mentor, and the Academic Year Scholarly Experience to provide continuation of the summer research project, academic support and assistance in seeking admission to graduate programs and assistance in obtaining graduate financial aid. The Scholars' papers are collected in a publication, the CSULB McNAIR Journal.

Summer Bridge Program

The Summer Bridge Program provides an intensive five-week residential summer experience for selected first-time freshmen EOP students entering for the fall semester. The program provides English and mathematics instruction, tutoring, orientation to the campus, study skills workshops and enrichment activities to prepare students for the challenges of college. Participants are required to reside in campus housing

for the full five weeks and must successfully complete the program to enroll at the university.

Upward Bound Program

The Upward Bound 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. The goal is to assist participants in their efforts to successfully complete high school and obtain a college education.

The program provides summer and weekend academic instruction, tutoring, academic, personal and career counseling, cultural activities and college application and admissions assistance.

Housing and Residential Life

University Residence Halls

The campus residence hall complex consists of 18 halls and accommodates 1,962 residents, including an International House complex which houses 86 students. All halls are coeducational and the majority of rooms are intended for double occupancy.

Residents may apply to reside in two-story halls utilizing suite designs or more traditional halls which have double rooms on either side of a long corridor. Halls are available with Regular Quiet Hours or Very Quiet Hours and residents may select 12 or 19 meals per week. A limited number of regular single rooms are available. The room and board rate is approximately \$5,700-\$6,200 depending on the accommodations and meal plans selected.

Applications for the academic year are accepted between January 2 and March 14 and applicants are then eligible to participate in a random housing lottery which is held in late March. Notification of lottery results are sent in mid-April. Applications received after March 14 will be accepted, but will not be part of the lottery and will only be accommodated if space is available after all lottery participants are offered space.

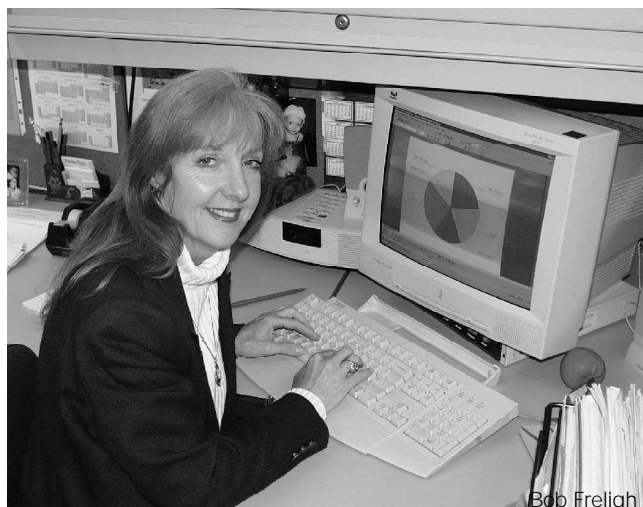
Applications are available by calling the Housing and Residential Life Office at 562-985-4187 or by visiting the web site at www.housing.csulb.edu.

Community Housing

Students, faculty and staff seeking housing in the off campus community may utilize the telephone listing services operated by Housing and Residential Life. The telephone listing service allows property managers to call a 900 number to list available property listings and then allows those seeking housing to call a local (toll free) number, 562-985-7757 to access the listing. The off campus web site is www.housing.csulb.edu.

Isabel Patterson Child Development Center

In January of 1975, the University and the Associated Students opened the Isabel Patterson Child Development Center to provide quality child care services to the University and community. The facility was made possible by the generous donation of Isabel Patterson, CSULB alumna. The services provided enable a student parent to attend classes at the University. The children of University staff, faculty, administration, alumni and then community are offered these services as space allows, following the registration of children of student parents.



Bob Freligh

Child Care Services are available for children six months to 2 1/2 years in the Infant/Toddler Program; 2 1/2 to five years in the Pre-school Program; and Kindergarten through second grade in the Schoolage Program.

The environment of the Center allows children to move freely and choose activities that fit their needs. Activities include reading, music, water and sand play, art, science, cognitive games and dramatic play. Some of the program's goals are to help children be responsible and able to solve their problems, to be inner-directed, to be aware of alternatives and able to make choices, and to be free from gender role and other stereotyping. The program includes a family-style breakfast, lunch and afternoon snack.

The Center employs child care and development professionals. The part-time teaching staff is composed of CSULB students who are required to participate in the Center's comprehensive training program. The Center is located on campus at 5700 Atherton Street. For information call (562) 985-5333 8:00 a.m. - 5:00 p.m.

Learning Assistance Center

Located in Library East-12, the Learning Assistance Center is an all-university academic support service that helps individuals identify and develop effective and efficient learning strategies. Services are available in the following categories:

1. Learning Skills Services
2. Supplemental Instruction
3. Tutorial Services
4. ESL Support Services

Learning Skills Services

Learning Skills Services address those areas typically identified as study skills. The Learning Assistance Center offers individual sessions (personal as well as media) and regularly scheduled workshops covering such topics as Reading Textbooks Critically, Listening and Notetaking Skills, Time Management, Test-Taking Strategies, Memory Techniques, Learning Styles, Preparing Research/Term Papers, and Preparing for Final Exams. These topics can be tailored to individual courses and presented in class at faculty request. Workshops are also scheduled by student organizations and other groups. Software is available to students who want to prepare for such standardized tests as the GMAT, GRE, and LSAT.

Additionally, Learning Skills staff maintain a collection of instructional materials in some of the more highly demanded areas. Faculty in the sciences, in business, and in math, for example, recommend that students use course-related materials housed in the LAC.

Supplemental Instruction

Supplemental Instruction (S/I) 60 provides a one-unit non-baccalaureate adjunct to select general education courses found to be high risk (i.e., particularly difficult for students to complete successfully). Each section of SI 60 uses the content of the corresponding GE course for students to develop critical thinking and learning skills; the skills emphasized are specifically applicable to this course and transferable to other univer-

sity courses. Sections are taught by advanced students who know the discipline well and have mastered the associated skills needed for success; participants in S/I typically perform significantly better in the GE course than peers who attempt the course independently.

Tutorial Services

Tutorial Services offers scheduled group, drop-in and individual appointment tutoring. Free weekly group sessions are led by a trained tutor for several of the more highly requested general education courses each semester. Individual tutoring is available to all students in nearly all disciplines on an hourly fee-support basis. Extensive drop-in tutoring requires a modest fee for unlimited use of any one subject. Each semester tutoring schedules are available online or at the Learning Assistance reception desk. Students in academic support programs such as EOP, SSSP, and DSS should contact program advisors regarding tutoring resources.

ESL Support Services

For students whose primary language is not English, the International Students' Conversation Lab provides extensive opportunities to develop English fluency, work on an academic language or course assignments and to discuss cultural experiences. Students needing to increase their English language skills to pass the Writing Proficiency Exam may meet weekly with ESL specialist tutors. The service is free to all students.

Getting Started

Students who want to improve their skills may make appointments with the Learning Assistance Center receptionist (985-5350) for a particular service or with a staff professional who can help them identify the activities that would benefit them most. Further information can also be obtained in person on the first floor of Library East.

Multicultural Center

The mission of the Multicultural Center is to contribute to the creation of a campus environment which respects and supports cultural, ethnic, and racial diversity. We are an educational resource center which serves as a vehicle for the expression of the needs and concerns of CSULB's increasingly diverse campus community.

The objectives and activities of the Center include: diversity workshops, lectures, and forums; an extensive up-to-date library of journals, magazines, books, video and audio tapes; "The Rainbow Voices," the Center's nationally recognized student performance troupe; a Standing Art Gallery featuring the works of well known artists celebrating our theme of cultural diversity; and student internship opportunities. The Center's resources are available for students, faculty, staff, and community members. The Center is open from 9:00 - 12:00 noon and 1:00 - 5:00 p.m. Monday through Friday. For further information, stop by the Multicultural Center in the Faculty Office 3 Building, Room 3 or call (562) 985-8150.



Student Health Service

Student Health Services

Student Health Services (SHS) is a health center providing medical services, preventive health and health education programs to registered students. A highly trained and experienced staff of licensed physicians, registered nurses and other health care professionals are dedicated to student health and well being. The SHS is located on State University Drive and Merriam Drive, between Brotman Hall and the residence halls. The SHS is accredited by the Association for Ambulatory Health Care, and is a member of the American College Health Association.

Eligibility for Student Health Services

All regularly enrolled students registered for the current semester are eligible for services. Taking a semester off: Continuing students (after two semesters) are eligible for services by paying the \$35.00 Health Fee at Student Health Services. Students taking classes through University College and Extension Services (UCES) can receive services for a fee of \$15.00 per visit, while classes are in session.

Clinical Services

Outpatient medical care is provided for acute injury and illness. Long term or overnight care is not provided. Services include Women's Health, Men's Health, and some specialties. Provisions are made for outside referrals for care beyond the scope of the SHS. An in-house laboratory, x-ray, and pharmacy are available. Visits to the SHS, in house laboratory tests, and x-rays are provided without charge. Laboratory tests sent to outside reference labs are available at low cost. The Pharmacy provides a range of prescriptions and over-the-counter items at low cost. The SHS is open year round. Semester hours are 8:00 a.m. to 6:00 p.m. Monday, Tuesday and Thursday; 10:00 a.m. to 7:00 p.m. Wednesday; and 8:00 a.m. to 12:00 noon Friday. Important phone numbers are SHS Switchboard, (562) 985-4771, and Appointment Desk, (562) 985-1638. *Medical Emergencies arising on campus are directed to University Police 9-1-1.*

Health Resource Center

The Health Resource Center (HRC) is located in the Student Health Services (SHS) room 268. The HRC provides health education and support to students with a variety of programs and services. Programs include Alcohol, Tobacco & Drug Abuse Prevention Workshop, Nutrition Counseling, HIV Testing and Counseling and Sexual Health Awareness Workshop. Services include computerized health resource service, Health Beach newsletter, personal assistance, multi-media health information, health education campus outreach activities and volunteer and internship opportunities. For more information call (562) 985-4609 or visit the SHS web site at www.csulb.edu/centers/shc (click on Health Resource Center.)

Immunization Requirement Clearance

Immunization clearance is performed at SHS. The SHS provides a range of vaccinations including those required by the California State University system. For new students 18 and younger on the first day of classes, the two required immunizations are Hepatitis B and Measles/Rubella. For new students 19 or older on the first day of classes, Measles/Rubella is required (for those students born after 1957.) Clearance is

obtained by showing proof of immunity using medical records or by receiving immunizations (available at the SHS.) Medical and religious exemptions are available. For more information see *Admission to the University, Immunization Requirements* section. You may also phone the SHS at (562) 985-4771, call the Immunization Hotline at (562) 985-5411 or visit the SHS web site at www.csulb.edu/centers/shc (click on immunization information.)

Medical Insurance

For chronic, complicated or severe illness or injury, medical insurance is strongly recommended. If a student does not have medical insurance, the Associated Students Inc., sponsors an individual health insurance plan to all enrolled students. This plan may be purchased through the Associated Students Business Office, University Student Union, room 220, or phone (562) 985-8311.

Office of University Ombuds Services

The Office of University Ombuds is an available resource for all students for the purpose of problem-solving, mediation, and expression of concerns related to campus issues. Students who wish to resolve issues informally may access the services of the Office of Ombuds before formally addressing their problems with the University. The Ombuds works independently as an objective advisor, keeps all matters confidential, and acts as a neutral party in order to ensure a process that is fair and equitable.

The Ombuds advocates for a process of resolving issues informally with integrity and dignity. The Ombuds will not address formal litigation issues, formal disciplinary actions, formal complaints, or grievance hearings. The services provided by the Office of University Ombuds do not compromise or replace university policies or procedures. Discussion with the University Ombuds does not constitute notice to the institution with regard to grievances and formal complaints.

The Office of University Ombuds is located in the University Student Union, Suite 301. The telephone number is (562) 985-5983, and the office is open Monday through Friday, 8:00 a.m. to 5:00 p.m. However, special arrangements for another meeting time can be made upon request.

Student Life and Development

"If all you do is go to class at CSULB, you are not getting a complete education." – President Robert C. Maxson

The Office of Student Life and Development (SLD) can help students broaden their involvement on campus. Through involvement in campus clubs and organizations and/or participation in activities sponsored by student groups, students are able to explore personal and academic interests, develop leadership skills, and gain information and contacts that will prepare for future careers.

There are approximately 250 student recognized organizations including academic associations, fraternities and sororities, and cultural, religious and special interest student groups. Professional staff in Student Life and Development provide leadership development and officer transition opportunities; advise student officers on program planning, development; assist groups with securing Associated Students government grants; approve campus student programs, and facilitate ac-

cessing University resources. SLD also administers student academic travel funds, provides presentations on campus life for University 100 courses and Orientation to Campus Life programs, and coordinates transmission of emergency messages to students in the classroom.

Programs and Activities

College Organizations

Each academic department has a student departmental association composed of students in that discipline. In addition, there are other academically related organizations and discipline-based honorary societies. Representatives from each departmental association and, depending upon constitutional provisions, other academically related organizations work together on a college student council. The organizations promote interaction between faculty and students, sponsoring speakers, seminars, social gatherings and other activities related to their disciplines. Students also have the opportunity to provide input regarding their educational experiences to their faculty and department chairs, as well as to their deans via departmental associations and student councils, respectively. SLD staff play a key role in coordinating major events such as the Design Student Association Carnival, Engineering Day, Health and Human Services Career Month, Awareness Festival, College of Liberal Arts Weeks, Meet the Industries Expo, and the Nobel Laureate Lecture.

Greek Life

Students have the opportunity to join national and local organizations with founding values based on community service, scholarship, campus involvement active social development. There are more than 30 fraternities and sororities which reflect a broad range of interests and historical traditions. There are groups with predominantly African-American, Asian-American and Latino membership, as well as chapters with no ethnocultural affiliation.

In addition to their social and cultural programs, sororities and fraternities sponsor national and/or local philanthropies and engage in community service projects. Examples of such projects are providing tutorial assistance and positive role models for children in local schools, initiating food and clothing drives for those in need, raising money for scholarships, etc.

Most national Greek organization chapters are members of one of these coordinating councils: National Pan-Hellenic Council (historically African-American sororities and fraternities), Inter-fraternity Council (fraternities), Panhellenic Association (sororities), and Cultural Greek council (Fraternities and Sororities).

Lois J. Swanson Leadership Resource Center

The vision of the Lois J. Swanson Leadership Resource Center (LRC) is to cultivate leadership excellence. Its purpose is to prepare CSULB students to be the world's best leaders and maximize leadership potential with a commitment to serve others. The LRC provides a leadership library, resources and a conference room. The library holds books, videos, tapes and materials for icebreakers and interactive activities. Resources include a series of seminars to enhance leadership skills, increase self-confidence and develop teamwork. The LRC offers consultations for classroom facilitation, conferences and customized workshops. The LRC "Board Room" can be reserved for leadership-related meetings.

The LRC is located on the third floor of the University Student Union, room 313. To contact the LRC, call (562) 985-1936 or e-mail: Leaders@csulb.edu.

American Indian Student Services

American Indian Student Services is devoted to the recruitment, retention and graduation of the indigenous peoples of North America. A coordinator of Student Life and Development provides admissions, academic and personal advising for American Indian students enrolled in the University; serves as the student life and development advisor to the American Indian Student Council; plans and implements outreach activities that assist in the identification and admission of prospective American Indian students; and assists with financial aid and Bureau of Indian Affairs grant applications for eligible Indian students; and serves as a liaison on American Indian concerns with campus offices. For further information, call (562) 985-8528.

Student Transition and Retention Services (STARS/SOAR)

The educational experience presents new students with myriad challenges and pressures. The department of Student Transition and Retention Services directs its major efforts toward the orientation, advising and registration of students and the promotion of their persistence in college through graduation. Special efforts are directed toward advisor training, orientation and advising workshops, as well as research with regard to issues affecting student retention.

The Student Orientation, Advising and Registration (SOAR) program provides newly admitted freshmen and transfer students with initial academic advising, assistance with class selection, registration for the first semester and an orientation to student services and campus resources. These workshops take place in early January and throughout the summer months.

The office is located in the Foundation Building (suite 160) and the telephone number is 562/985-5515. Information also may be obtained on the department's web site at www.csulb.edu/soar/.

Testing and Evaluation Services

Information regarding admissions placement and certification examinations may be obtained from the office of Testing and Evaluation Services. Test programs currently offered include the SAT and Achievement Tests, ACT, EPT/ELM, WPE, PRAXIS, and the Nelson-Denny Reading Test. Students are advised to refer to testing requirements described elsewhere in the Catalog, and in particular, the EPT, ELM, and WPE programs. Additional placement or admission examinations may be offered to meet the needs of academic department requirements. Registration bulletins for the above mentioned exams as well as the MCAT, LSAT, CBEST, GRE, RICA, and TOEFL exams are available in the information racks immediately outside of the office.

The Testing Office also provides services to faculty, staff and administrators regarding research design, questionnaire construction and data analysis. The office is located in Brotman Hall 216; phone (562) 985-4007. FAX (562) 985-2415 or visit the Testing Office website at www.csulb.edu/centers/testing.

University Interfaith Center

The University Interfaith Center (UIC) is an association of 12 faith traditions serving the educational community of CSULB. Member groups represent individual faiths while respecting the diversity of religious traditions and the pluralistic nature of the university. Membership in the association is extended to faith groups who choose to work cooperatively, respecting the integrity of one another's religious traditions. All of the services of the University Interfaith Center are available to the entire campus community—students, faculty and staff.

The UIC aims to enhance the educational experience by encouraging students, faculty and staff in their pursuit of spiritual growth, community building, faith development and personal values. It offers pastoral care/spiritual support, educational programs, student community, worship services, service projects, conferences/retreats and referral information. It also provides a library on topics of religion and a comfortable lounge area where students can meet, share a meal or study.

The UIC is located in the University Student Union, room 103. For information on programs and resources call (562) 985-4369.

University Outreach and School Relations

The Office of University Outreach and School Relations (UOSR) is the primary student recruitment and guest relations office for the University. The Office disseminates information on CSU and CSULB admissions and financial aid policies and procedures, on CSULB's academic programs and on student services to prospective students and counselors from high schools and community colleges in the CSULB service area and surrounding communities.

A major focus of UOSR is the implementation of outreach and recruitment programs and services to reach a diverse pool of talented high school and transfer students for whom CSULB is their "University of Choice". The Office, under the direction of the President, also is responsible for recruitment of President's Scholars (California valedictorians and National Merit Finalists and Semifinalists).

In addition, UOSR administers pre-admissions and application workshops for prospective freshmen and transfer students; the Young Scholars Program for qualified high school students; admissions services for adult re-entry students; and educational awareness and academic enrichment services for elementary and middle school students.

UOSR offers guided campus tours by appointment. Those interested in visiting the campus should call (562) 985-5358. Specialized campus visits for K-12 students, parents, counselors and other interested groups may also be arranged.

The Office of University Outreach and School Relations is located in Brotman Hall, room 289. For more information, visit the UOSR website at www.csulb.edu/outreach.

Veterans' Services

The Veterans' Services office coordinates all veterans' financial benefits including initiation of federal and state benefits, maintenance of veterans' status with the Veterans' Administration and continuation of benefits through enrollment certification. In the past, federal grants funded full-time veterans' services at the university. At the present time, minimal federal funding has eliminated specialized veterans' services at many universities; despite the lack of federal funding, a half-time veterans' office is maintained at CSULB. The office is supervised by Counseling and Psychological Services and is located in Brotman Hall 226.

Women's Resource Center

The mission of the Women's Resource Center (WRC) is to facilitate the educational, professional and personal growth of women on campus. The WRC houses a library of material on women's issues, offers women's support groups, and peer counseling. It provides referrals to campus and community services, scholarship information, and is a clearinghouse for current events of interest to women. The WRC also provides a comfortable lounge where students can study, chat with friends, or hold meetings.

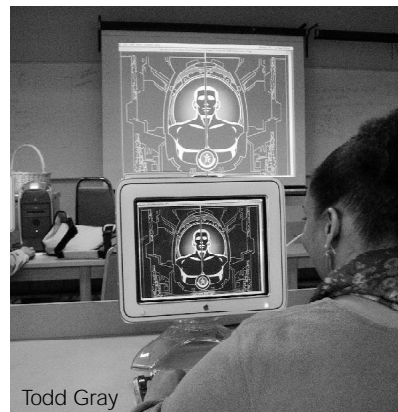
In addition, the Women's Resource Center sponsors educational events throughout the school year and networks extensively with other academic and student services programs. The seminars, workshops and/or conferences range from the more current theoretical women's issues to practical concerns of university women. The WRC is open from 9:00 a.m. to 5:00 p.m. Monday through Friday and two evenings until 6:30 p.m. The Women's Resource Center services are free and available to women and men, campus and community. The WRC is located in Liberal Arts 3-105. For further information, call (562) 985-8687/8576.

Writer's Resource Lab

The primary goal of the Writer's Resource Lab is to help CSULB students develop as writers by providing personalized writing tutorial services. Students do not need to be taking a writing course to use the Lab's services; they are available to any currently enrolled CSULB student.

At the Writer's Resource Lab, students may consult with friendly and knowledgeable tutors (all of whom are CSULB undergraduate or graduate students) in order to become more comfortable and confident with any aspect of the process of writing. Students are welcome to drop by and use the Lab's library of writing reference materials. Other services include group tutorial sessions and workshops on various writing issues.

For more information or to make a tutoring appointment, stop by the Lab in Language Arts Building - 212 or call (562) 985-4329.





Keith I. Polakoff

CAMPUS LIFE

Student Organizations

College of the Arts

College of the Arts Student Council, American Society of Interior Designers (ASID), Art Education Student Association, Bachelors of Fine Arts Club, Ceramics Guild, CSULB Composers Guild, CSULB Saxophone Club, Design Student Association, Gallery Exhibition Society, Off 7th Street Dancers, Percussion Students Association, Sigma Alpha Iota (Music), University Players, Visual Communications Design Association

College of Business Administration

Associated Business Students Organization Council (AB-SOC), American Marketing Association (AMA), Beta Alpha Psi/Accounting Society (BAP), Beta Gamma Sigma (Business Administration), Black Business Student Association (BBSA), Delta Sigma Pi (Honorary-Business Administration) (DSP), Financial Management Association (FMA), Hispanic Students Business Association (HSBA), Human Resources Management Association (HRMA), Information Systems Student Association (ISSA), International Business Association (IBA), Masters of Business Administration Association (MBAA), Pacific Rim Association (PAC RIM), Professional Women in Business Administration, Society for the Advancement of Management (SAM), Society of Electronic Commerce (SEC), Student Entrepreneurial Exchange (SEE), Vision

College of Education

Association for Future Educators (AFE), Association of Professionals in Student Affairs (APSA), College of Education Student Assembly, Student California Teachers Association (SCTA)

College of Engineering

Associated Engineering Student Body (AESB), American Indian Science & Engineering Society (AISES), American Institute of Aeronautics and Astronauts (AIAA), American Institute of Chemical Engineers (AIChE), American Society for Quality (ASQ), American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), American Society of Mechanical Engineers—Electric Car Project, American Society of Mechanical Engineers—Human Powered Vehicle Project, American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE), Associated Builders & Contractors (ABC), Associated Engineering Student Body—Robotic Wars Project, Associated Engineering Student Body—Solar Car Project, Association of General Contractors (AGC), Association of Computer Machinery (ACM), Association of Engineering Technology (AET), Bio-medical Engineering Society (BMES), Chi Epsilon (Civil Engineering), Construction Management Association of America (CMAA), Eta Kappa Nu (Electrical Engineering), International Microelectronics and Packaging (IMAPS), Institute of Electrical & Electronics Engineers (IEEE), Institute of Industrial Engineers, Institute of Transportation Engineers (ITE), Instrumentation Society of America (ISA), International Microelectronics and Packaging (IMAPS), Mexican American Engineers and Scientists (MAES), Micro Mouse Robotics Team, National Association of Environmental Professionals, National Association of Women in Construction (NAWIC), National Society of Black Engineers (NSBE), Pi Tau Epsilon (Engineering), Pi Tau Sigma (Mechanical Engineering), Society of Automotive Engineers (SAE), Society of Hispanic Professional Engineers (SHPE), Society of Manufacturing Engineers (SME), Society of Petroleum Engineers (SPE), Society of Women Engineers (SWE), Structural Engineers Association of Southern California (SEAOSC), Tau Beta Pi (Honorary-Engineering), Upsilon Pi Epsilon (Engineering)

College of Health and Human Services

College of Health & Human Services Student Council, Alpha Phi Sigma (Criminal Justice), American Association of Family & Consumer Sciences, American Humanities Student Association, Associated Students of Social Work, California Nursing Students Association, Child & Family Associated Students, Criminal Justice Student Association, Eta Sigma Delta (Honorary—International Hospitality Management), Eta Sigma Gamma (Health Science), Fitness Majors Club, Food-service & Hotel Management Association (FHMA), Gerontology, Health Care Administration Forum (ACHE), Health Science Student Association (HSSA), Kappa Omicron Nu (Honorary—Home Economics), National Student Speech, Hearing, & Language Association (NSSLHA), Physical Therapy Club, Pi Alpha Alpha (Public Affairs & Administration), Radiation Therapy Student Association, Recreation Society, Sigma Theta Tau International, Inc. (Nursing), Society of Consumer Affairs Professional (SOCAP), Sports Medicine Club, Student Affiliates of the American Kinesiotherapy Association (SAAKTA), Student Association of Family & Consumer Sciences (SAFACS), Student Dietetic Association, Student Food Science Society, Students Active in Community Health, Students in Fashion, The Dr. Jack Rose KPE Majors Club

College of Liberal Arts

College of Liberal Arts Student Council, Anthropology Student Association, Associated Students of Comparative Literature, Black Studies Student Association, Chicano/Latino Studies Student Association, English Student Association, Eta Sigma Phi (Friends of the Classics), Geography Student Association, History Student Association, Human Development Student Association, International Socialist Organization, Linguistic Student Association, Political Science Student Association, Psi Chi (Honorary—Psychology), Psychology Student Association, Public Relations Student Society of America, Religious Studies Student Association, Sigma Tau Delta International (English Honor Society), Sociology Student Association, Spanish Student Association, Student Communication Association, Student Philosophy Association, Women's Studies Student Association

College of Natural Sciences and Mathematics

College of Natural Sciences & Mathematics Student Council, Association of Pre-Dental Students (APDS), Biology Student Association, Chicanos/Latinos for Community Medicine, Geology Students Society, Math Students Association, Microbiology Student Association, Minority Association of Pre-Health Students, Student Affiliates of the American Chemical Society (SAACS), The Organization of Pre-Professional Students (TOPPS), The Society of Physics Students of CSULB

Cultural Clubs

American Indian Student Council, Armenian Student Association, Black Cultural Programming Committee, Black Student Union, Cambodian Student Society, Chinese American Student Association, Club Italia, CSULB Permas, Eritrean Students Association, Hapa Issues Forum, Indian Student Association, International Students Association, Iranian Student Association, Japan Club, Korean American Students Association, La Raza Student Association, Latino Student Union, National Pan-Hellenic Council, Nikkei Student Union, Pacific Islanders Association, Pilipino American Coalition (PAC), Russian Club, Saudi Students Club of Southern California, Thai Students Association, Turkish Student Association, United Migrant Student Association, Vietnamese Student Association

Fraternities

Alpha Phi Alpha Fraternity, Delta Chi Fraternity, Delta Lambda Phi Fraternity, Delta Sigma Chi Fraternity (co-ed), Iota Phi Theta Fraternity, Kappa Alpha Psi Fraternity, Inc., Kappa Sigma Fraternity, Lambda Theta Phi Fraternity, Omega Psi Phi Fraternity, Phi Beta Sigma Fraternity, Phi Kappa Tau Fraternity, Sigma Alpha Epsilon Fraternity, Sigma Lambda Beta Fraternity, Sigma Phi Epsilon Fraternity, Sigma Pi Fraternity, Tau Kappa Epsilon Fraternity, Theta Chi Fraternity, Zeta Epsilon Tau Fraternity, Zeta Phi Rho Fraternity

Greek Councils

Cultural Greek Council (CGC), Interfraternity Council (IFC), National Pan-Hellenic Council (NPHC), Panhellenic Council (NPC)

Honor Societies

Black Scholars Student Association, Golden Key International Honor Society, Mortar Board (National Honor Society), Phi Eta Sigma/Alpha Lambda Delta (Interdisciplinary Fresh-

men), Phi Kappa Phi (Interdisciplinary), Scabbard and Blade Society, The Order of Omega (Greek Leadership Honor Society), University Honors Program Student Association

* See college list also.

Political/Social Action Clubs

American Civil Liberties Union, International Socialist Organization, Model United Nations, NAACP-College Chapter, Society of Free Thinkers, Student Advocates for the Innocent, Student Coalition to Free Mumia Abu-Jamal

Religious Clubs

Asian American Christian Fellowship, Asian Baptist Student Koinonia, Beach Student Ministries, Campus Crusade for Christ, Catholic Newman Club, Chinese Christian Fellowship, Christians on Campus, Christian Students Unite, Cooperative Protestant Campus Ministry, Hillel, IMPACT, International Christian Fellowship, Korean Campus Crusade for Christ, Korean Intersarsity Fellowship, L.A. Church of Christ Campus Ministries, Latter-Day Saints Student Association, Leadership Forum, Methodist Wesley Foundation, Muslim Student Association, Studies in the Old and New Testaments, The Academy: A Wisdom School, The Beach Coptic Orthodox Christian Club, The Bible's Voice Campus Ministry, The Edge, The Navigators, University Bible Fellowship, Victory Campus Fellowship, Walking Bibles

Service Organizations

Alpha Phi Omega, Best Buddies, Circle K International, The Red Cross Organization

Sororities

Alpha Kappa Alpha Sorority, Alpha Omicron Pi Sorority, Alpha Phi Sorority, Chi Delta Theta Sorority, Delta Delta Delta Sorority, Delta Gamma Sorority, Delta Sigma Theta Sorority, Delta Zeta Sorority, Gamma Phi Beta Sorority, Kappa Psi Epsilon Sorority, Lambda Theta Alpha Latin Sorority Inc., Sigma Gamma Rho Sorority, Sigma Kappa Sorority, Sigma Lambda Gamma Sorority, Sigma Phi Omega Sorority, Zeta Phi Beta Sorority

Special Interest Clubs

ANIME Club, Army ROTC, Best Buddies, Cinema Society, Circle K International, College Students in Broadcasting, CSULB "Zen" Sitting Club, CSULB Amateur Radio Association, CSULB Campus for Nader, CSULB Campus Progressives, CSULB Chess Club/University Chess Association, CSULB Entrepreneur Society, Existention Dance Company, Gallery Exhibition Society, Gay, Lesbian & Bisexual Students United, Grupo Folklorico Mexica, Human Factors and Ergonomics Society, Law Society, Long Beach State Forensic Team, Macintosh User Group, META (Movimiento Estudiantil de Teatro Y Artes), Multiethnic and Multicultural Association (MeMCA), PhE Peer Health Educators, Residence Hall Association (RHA), Schiller Club, Social Dance Club, Student Alumni Association, Upward Bound Association, Yoga Meditation Club

Sports Clubs

Student Athlete Advisory Council, Aikido Club, Alpine Ski & Snowboard Team, Archery Club, Badminton Club, Bowling Club, Capoeira Club, Crew Team—Men, Crew Team—Women, CSULB Men's Volleyball Club, CSULB Surf Team/Club, CSULB Triathlon Team, Fencing Club, Forty-Niner Ice Hockey Team, Frisbeach, Karate Do, Men's Rugby Team, Men's Soccer Team,

Outdoor Adventure Club, Sailing Club, Sailing Team, Shotokan Karate Club, Tae Kwon Do Club, Water Ski Club/Team, Women's Soccer Team

Student Resource Centers

There are five student-run resource centers on campus where students may go for information and support.

Activities in the centers vary and may include small group meetings, planning for major cultural events, occasional pot-lucks, study hall, peer mentoring, and dissemination of information on community resources/volunteer opportunities and scholarships. Some centers may also house selected reading material.

American Indian Student Study Center, FO4-282, (562) 985-4963

Asian Pacific Student Resource Center, FO4-277

Black Student Cultural Center, FO4-274, (562) 985-4502

Raza Resource Center, FO4-263, (562) 985-5223

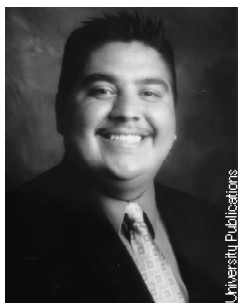
Lesbian/Gay/Bisexual/Transgender Resource Center (LGB-TRC)

The LGBTRC is a center run by students for students with the mission of offering support, conducting outreach and providing information to the campus community regarding lesbian, gay, bisexual and transgender (L/G/B/T) issues. The Center maintains a library of books and videos on L/G/B/T topics. Speakers Bureau volunteers are available for classroom or residence hall panel discussions. The Center has community posting boards for jobs, scholarships and events on- and off-campus. The LGBTRC also offers several rap/discussion groups and a lounge is available for students to study or hold meetings. Throughout the year, the LGBTRC sponsors various educational seminars and workshops designed to educate and increase visibility for L/G/B/T concerns.

LGBTRC services are open to any student, faculty or staff member interested in the lesbian/gay/bisexual/transgender community. The Center is located in FO4-165. For further information, including Center hours, call 562/985-4585 (general information), 562/985-4588 (event line) or e-mail lgbtrc@hotmail.com.

Fraternity and Sorority Housing

Most fraternities and sororities own or lease homes near the campus and provide lodging and meals for their members and pledges. Students interested in affiliating with a sorority or fraternity should contact the Panhellenic Association (for sororities), the Interfraternity Council (for fraternities), or National Pan-Hellenic Council via Office of Student Life and Development, University Student Union.



Danny Vivian
2002-2003 ASI President

Student Government

Student government through the Associated Students Inc. (ASI) is a unique opportunity for service to students by students. Students interested in management of the large A.S.I. corporation and in taking part in the decision-making process of the University, will also find student government rewarding. Every student becomes a member of the Associated Students upon registra-

tion. Through the Associated Students, Inc., a non-profit corporation in the State of California, financial support is given to student activity/interest commissions, a newspaper, radio station, college councils and departmental associations, and to various social, athletic, ethnic and cultural programs.

The governance structure of the Associated Students, Inc. includes legislative, executive, and judicial branches. Students are elected to approximately 28 positions by the student body each year to fill the executive and legislative branches. In addition, students are also elected to policy-formulating bodies of the University including the Child Development Center Board of Directors, the Forty-Niner Shops Board of Directors, and the Academic Senate. Participation in these programs and other campus activities has been a significant part of many students' University experience.

The executive branch of student government is comprised of the A.S. President, A.S. Vice President, A.S. Treasurer and A.S. Administrator. The Associated Students President is the chief executive officer of the Associated Students, Inc. and acts as the representative and host of the Associated Students, Inc. to the University and the general public. The President is responsible for executing Associated Students policies and for making all A.S. executive appointments. The President is an ex-officio member of all A.S. executive bodies.

The Associated Students Vice President chairs the A.S. Senate and is a voting member of that body as well as other campus committees. The Vice President is responsible for assembling the agenda for the Senate meetings and serves on several boards and committees. The Vice President assists the President with his or her duties and assumes the President's duties should the A.S. President leave office or become incapacitated.

The Associated Students Treasurer is responsible for the Associated Students finances and enforcement of the A.S. fiscal policy. The Treasurer prepares the Associated Students budget, subject to Senate final approval, and chairs the A.S. Board of Control. The Treasurer approves all expenditures of A.S. monies and assists clubs and organizations with budget preparation.

The Associated Students Administrator is the senior programming officer of the Associated Students government. Appointed by the A.S. President each year, the Administrator is responsible for overseeing the A.S. Commissions, activities, and services. The Administrator also represents the Associated Students and the President on several campus committees.

The Associated Students Board of Control is the fiscal advisory body to the Senate and is chaired by the A.S. Treasurer. The Board handles personnel matters and supervises the use and maintenance of the Associated Students buildings and equipment. All groups requesting Associated Students funding must go before the Board of Control for approval prior to appearing before the Senate. The Board of Control makes recommendations regarding expenditure allocations to the Senate, and the Senate has final approval in all A.S. Board of Control actions.

The A.S. Senate is the legislative branch of student government. It serves as the Board of Directors of the Associated Students Corporation by steering the corporation's finances and policies. The Senate creates and revises its by-laws, allocates funds for programs, approves presidential appointments, fills vacancies in elected offices between elections, and forms committees to study problems and proposals. The Senate also charters on-campus student groups (except fraternities and sororities), which enables these groups to request Associated Students funding for programs, use the Student Union's facilities, plus enjoy the benefits of the Associated Students' support and recognition. The Senate is comprised of 21 voting members, including the A.S. Vice President who serves as the Chair. There are two senators representing each of the seven colleges at CSULB. Senators must be majoring in one of the departments within the college they represent. In addition, there are six Senators-at-large seats also chosen by the general student body.

When a dispute arises, the Associated Students Judiciary may take disciplinary action, including suspension or revocation of charter privileges against recognized organizations on campus. The Judiciary also renders final decisions in election disputes. The decisions of the A.S. Judiciary are the final authority in Associated Students matters. A chief justice and six associate justices are appointed yearly by the A.S. President and approved by the A.S. Senate. The A.S. President also appoints an Attorney General and a Public Defender. This court allows students the opportunity to develop adjudication skills and address any injustice or wrongdoing in student government.

The Associated Students government offices are located in suite 311 of the University Student Union. For further information, call (562) 985-5241 or write to Associated Students Inc., 1212 Bellflower Blvd., Long Beach, CA 90815-4199.

The University Student Union

The University Student Union (USU) is located in the center of campus and occupies approximately 180,000 square feet. With large interior patios, flexible multipurpose and meeting rooms, comfortable lounges and food service facilities, the USU is the campus "living room." The USU offers weekly entertainment activities and is home to the USU administrative offices, Alumni Relations, the office of the Associate Vice President for Student Services/Dean of Students, the Associated Students Inc. (ASI) student government and business offices, the Community Service Officers Program, a Computer Center, a Cultural Center, the Greek Center, the Interfaith Center, KBeach Radio, the Leadership Resource Center, a student Legal Aide office, the Photo/Ticket Center, the Robert C. Maxson Student Organization Center, the office of Student Life and Development, and the Union Newspaper.

In March 1965, the student body voted to assess a fee each semester to construct, maintain and operate a student union building. In March 1995, the student body approved a \$17 million USU Improvement Project. Completed in May 1998, the Project added a third floor to the building and provided space for a Commuter Student Services Area, a Leadership Resource Center, an organization center, a computer center, new meeting rooms, a covered exterior escalator and a new West Wing.

The ground floor of the USU caters to recreational and entertainment services. The Games Area features bowling

lanes, video games, billiards, table tennis, a television lounge and an outdoor swimming pool. These programs are open to the campus and community. The first level also houses the Blue Marble Cafe.

The Plaza (second) level houses service areas. The Photo/Ticket Booth offers photo developing and tickets for campus events and area theme parks. ASI Business Office offers health insurance, money orders, public notary, and is the office where student organizations hold their accounts. The Event Planning Office is the central scheduling service for the entire campus. The office of Student Life and Development offers advising for student organizations as well as mailboxes and organizational files. The Computer Center offers students the ability to use both PC and Mac computers conveniently. Planet GraphX provides students with the latest in design. The USU Food Court features nationally branded vendors such as Carl's Jr., Subway, Robek's Juice, Coffee Bean and Tea Leaf, El Pollo Loco and the Candy Counter.

The third level houses the ASI Government office here and offers students the opportunity to participate in campus governance activities. The Cultural, Greek and Leadership Development Centers provide students with valuable resources to enhance their college experience. The Robert C. Maxson Student Organization Center houses 22 active student organizations.

Throughout the USU there are many facilities for student organizations and other groups to schedule events. The multipurpose rooms, meeting rooms, Center Courtyard and the Small Auditorium all provide a variety of facilities for meetings, conferences, speakers, films, concert, luncheons and banquets.

In addition to these services, the USU is home to Gary & Co. Hair Design and Fun-Fest Travel.

The Soroptimist House

The Soroptimist House, presented to the Associated Students by the Soroptimist Club of Long Beach, provides a facility for parties, receptions, and informal meetings. It has a terraced patio for outdoor events, carpeted lounges, a complete kitchen, and a dance area available for scheduling by all campus organizations and departments. The Soroptimist House has a small, intimate, home-like setting. Reservations may be made at the Event Planning Office in the University Student Union.

SOCIAL WORK

College of Health and Human Services

Director

John Oliver

Graduate Program Coordinator/Graduate Advisor

Jeffrey J. Koob (562) 985-2110

Undergraduate Program Coordinator/Undergraduate Advisor

Susan Rice (562) 985-4204

Admissions Coordinator

Candace eSmith (562) 985-8180

Field Education Director

Barbara Cohen (562) 985-2269

Distance Education Coordinator

Christine Kleinpeter (562) 985-5655

MSW / BASW 24 Hour Information Line

(562) 985-5654 / 985-5427

Department Office

SSPA, Room 161

Department Telephone / FAX

(562) 985-4616 / 985-5514

Faculty

Professors

Paul Abels (Emeritus, 2000)

Lester Brown

Kenneth Chau (Emeritus, 1998)

Catherine C. Goodman

Jean M. Granger (Emeritus, 2002)

Jillian Jimenez

Isaiah C. Lee (Emeritus, 1998)

Julie O'Donnell

John Oliver

Elizabeth T. Ortiz (Emeritus, 2001)

Marilyn Potts

Susan Rice

Associate Professors

Barbara Cohen

Christine Kleinpeter

Rebecca Lopez

Assistant Professors

Jeffrey Koob

Cheryl Lee

Eileen Pasztor

Carrie Petrucci

Molly Ranney

Janaki Santhiveeran

Phillip Tan

Anna Yeakley

Assistant to the Director

Annie Radzicki, (562) 985-1878

Full-time Field Faculty

C. Atkin

T. Crowe

T. Cummins

M. Foster

J. Green

M. Maram

S. Peyser

E. Pringle-Hornsby

J. Rubin

Students desiring information should contact the numbers listed above.

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The mission of the profession of social work is to improve the quality of life for all people and to enhance human potential for full and productive participation in society. As such, social work has universal application to meet human needs arising from personal-societal interactions. Social Work, based on the history and philosophy of the profession, is committed to working with disenfranchised groups in our society to alleviate poverty and oppression and to empower at risk groups.

The social work method is a change-oriented process which helps individuals and social units of all sizes, structures and functions to discover, mobilize, develop and use their own and outside resources to change personal and social conditions which are barriers to meeting their needs. Change is accomplished through direct service, supervision, consultation, education, community organization, program development and evaluation, organizational and administrative advocacy, policy development, and social or political action.

Social workers are employed in varied settings, including the major societal institutions: health and mental health, child welfare, family services, government, education, justice, aging services, recreation, labor and industry, and religion. They work in many job classifications: direct service, community organization, supervision, consultation, management, administration, education and training, policy analysis and research.

The mission of the Department of Social Work is to prepare a diverse student population for Bachelor of Arts in Social Work (BASW) and Master in Social Work (MSW) degrees for professional social work practice. The graduates of these programs are able to:

- demonstrate competent and ethical practice with diverse and multicultural populations from a base that builds on advances in social work knowledge, values and skills;
- enhance the well-being, and address the needs of diverse and multicultural populations across the life span;
- and advocate for social justice and social change and for elimination of oppression and discrimination.

Additionally, the mission is to provide BASW and MSW education which is broadly accessible so that graduates can serve the needs of local, state and international communities in which they practice. In order to accomplish the mission, the Department draws on a diverse faculty who provides quality social work education and contributes to the community, the profession and the advancement of professional knowledge. The Departmental curriculum assists BASW and MSW students to gain professional knowledge and values and develop an understanding of, and skill in social work methods and techniques required to undertake quality practice within the full spectrum of professional tasks. These expectations are accomplished with the student through the integration of the information and theories of the classroom with supervised practical experience in a variety of social agencies.

The BASW and MSW programs are accredited by the Council on Social Work Education (Council on Social Work Education, Commission on Accreditation, 1725 Duke Street, Alexandria, VA 22314, phone number: 703-683-8080.

Departmental, University and Council on Social Work Education regulations do not permit the substitution of life or work experience for curriculum requirements and expectations.

The BASW and MSW programs are accredited by the Council on Social Work Education (Council on Social Work Education, Commission on Accreditation, 1725 Duke Street, Alexandria, VA 22314, phone number: 703-683-8080.

Departmental, University and Council on Social Work Education regulations do not permit the substitution of life or work experience for curriculum requirements and expectations.

Bachelor of Arts in Social Work (code SW__BA01) (120 units)

The Department 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 all size systems (individuals, families, groups, communities and institutions).

Social Work majors should consider taking courses as electives or for fulfillment of general education requirements in the ethnic studies, women's studies and gerontology programs in the Colleges of Health and Human Services and Liberal Arts. The department 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.

The field work sequence plays an integral role in the BASW curriculum providing an opportunity for the student to apply Social Work knowledge and practice skills in an agency based educationally focused field work placement. Students complete 400 hours of field placement (SW 495 A/B) in their senior year for which they earn 14 academic units. Students complete 16 hours per week in an assigned agency placement. A variety of agencies in the surrounding communities are used, and the department's field faculty select the most appropriate field placement site for students.

Students can contact the admissions unit for academic advising concerning the requirements for admission into the BASW program.

Admission Under Impaction

The number of applicants to the Social Work program exceeds the number that can be accepted. For this reason, the Social Work Program has been designated as impacted by the California State University. Admission is on a competitive basis and is determined on the basis of meeting all of the following supplemental criteria. Applicants to the upper-division major must be able to demonstrate that they will meet the following requirements for admission prior to the semester for which the application is submitted:

1. Completion of a minimum of 56 semester units of degree credit, including all lower-division General Education requirements with a cumulative GPA of at least 2.00. Also including the five prerequisite courses listed below or their equivalents:
 - A. Cultural Anthropology (ANTH 120)
 - B. Human Biology (BIOL 205) or anatomy/physiology
 - C. Introduction to Psychology (PSY 100)
 - D. Introduction to Sociology (SOC 100)
 - E. Elementary Statistics (HDEV 250; MATH 180; PSY 110; SOC 250);
2. Earn a minimum GPA of 2.5 in the prerequisites *noted in 1 and an overall cumulative college GPA of 2.0;
*Because of the rigorous academic and professional demands of the program, students must demonstrate the ability to perform well academically. Priority will be given to students with GPAs of 2.5 and above who provide appropriate application materials. Students with GPAs of less than 2.5 who submit excellent application materials also will be given consideration.
3. Submit by January 20 a departmental application which includes statements of biographical and educational background, and community and/or social work experience.
4. Submit two letters of reference (one academic and one professional).
5. Submit transcripts of all previous college work at CSULB and elsewhere. In determining eligibility of an applicant for admission to the program, the admission committee will consider:
 - A. All the information in the supplemental application;
 - B. All college/university academic work completed with emphasis on the prerequisite courses;
 - C. Documented exposure to the field of Social Work in a variety of settings such as work or volunteer experience;
 - D. An interview of the applicant (at the discretion of the admission committee)

Admission Under Impaction for Continuing Students

Students who indicate a 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 department. Students who are not accepted into the major cannot continue as pre-social work majors.

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 unless they have listed a second choice of major on the application form.

Additional Requirements

To be allowed to continue in the major, students must complete the following during the first two semesters in the major courses:

- A. Pass Abnormal Psychology (PSY 370)
- B. Pass the CSULB Writing Proficiency Examination (WPE)

Sequence of Required Social Work Courses

Students will take the following sequence of courses starting with:

First Level (fall): SW 220, 221, 330, 350

Second Level (spring): SW 331, 340, 341, 351

Third Level (fall): SW 440, 442, 495A

Fourth Level (spring): SW 441, 465, 495B

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. If a student earns a grade lower than a "C" in a classroom course or a "NC" in a practicum or field experience course, the student must repeat the course and earn an acceptable grade before advancing to the next level of courses.

Master of Social Work (code SW__MW01)

The Department 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 concentrations representing Children, Youth and Families or Older Adults and Families.

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 resources.

In addition to the mission noted above, the MSW program provides an educational experience which does the following:

1. Provides knowledge of and experience with ethnic diversity, teaches skill in ethnic-sensitive practice, and provides motivation and skill to combat oppressive policies and discrimination. As such, the program actively offers opportunity for graduate education to students of various ethnic, racial, and socio-economic backgrounds who have life experience in bridging cultural gaps;
2. Contributes to the quality of social services delivered in the adjacent community (Los Angeles, Ventura, San Bernardino, Riverside, and Orange Counties) by providing an opportunity for advanced education to students who are already employed in the social services. These students may concurrently maintain employment within the social services and participate in the program to develop advanced skills in their area. Quality of services is also enhanced through close collaboration between the Department of Social Work and community service agencies offering fieldwork experiences and through the labor force of MSW's educated in a program with multicultural emphasis and specializations which reflect the needs of our adjacent community as well as the needs of urban communities nationally;

3. Prepares social workers for leadership and specialized practice with a specific population group. The program maintains high standards and prepares social workers for the depth and complexity of generalist Social Work practice while being able to practice in a chosen area of concentration. Foundation knowledge, values, and skills required for intervention in a multicultural context are applied and developed through work within the area of specialization. Specialization consists of emphasis on a stage of the life cycle: either children, youth, and families or older adults and families. Specialized education is offered concurrently with basic foundation knowledge from entry into the program. Students are expected to have experience in the social services upon which to draw after entry into the program;
4. Teaches analytic skill necessary for reflective and autonomous practice and necessary for contribution to the advancement of knowledge. Social workers should be capable of integrating knowledge and practice, should be able to apply grounded, scientific principles to practice, should be capable of conceptualizing practice principles on the basis of their experience, and therefore should be able to contribute to the development of new knowledge;
5. Educates students to the values and ethics of the profession. The social worker is expected to be committed to the value that people should have equal access to resources, services, and opportunities. Social workers should be advocates of humane and responsive service, have regard for the worth and dignity of the individual, and conduct themselves in accordance with the professional code of ethics.

Concentrations

The Master of Social Work degree offers opportunity for study in two areas of concentration: Older Adults and Families or Children, Youth and Families. The concentrations reflect two of the major areas of social concern and programs in our society. Child neglect and abuse, single parents, drugs and gangs illustrate the tremendous need for service to children and their families. Interestingly, the other end of the age range also reflects neglect and a need for service. The aged, the fastest growing population segment in our society, often lead healthy productive lives; however, many at risk individuals and their families will require services. For example, older adults in the uppermost age brackets are often frail and, therefore, may have a greater need for social services, income maintenance, housing, health and personal care services. The probability that older women will live longer than men and experience differences in social and economic conditions places many older adults at risk.

With both groups, the family is often the mediating source, and the social worker needs to be able to work with the family as well. Both groups are represented by large numbers in Southern California, and programs are developing to serve the need. Professional social workers have a vital part to play in seeing these services are adequate and sound.

The Children, Youth and Families Concentration (CYF)

The Children, Youth and Families (CYF) concentration prepares students for practice in a variety of settings. Students are exposed to the full range of practice skills and have one

year of direct practice experience and a second year of more intense direct practice or administrative practice experience.

Field work placements are available in a variety of agencies in the surrounding five-county area, including public, private and non-profit agencies. Typical settings include child welfare/protective services, health care, mental health, public social services, schools, community-based outpatient agencies, corrections/juvenile justice, residential treatment, programs for persons with developmental disabilities, substance abuse treatment and other specialized programs.

Required Courses for CYF Concentration

SW 560 Direct Intervention with Individuals and Families:

Focus on CYF

SW 660 Direct Intervention with Groups and Families: Focus on CYF

SW 670 Social Work Administration

SW 681 Advanced Policy and Political Action: CYF

SW 596 and SW 680 Field work placement in two different CYF agencies

SW 698/699 Master's Thesis

Two electives (any scheduled electives)

Distance Education

The Children, Youth and Families Concentration is also offered at off-campus locations throughout the state. Courses are taught using face-to-face instruction, as well as interactive television. The distance education MSW is offered using a 3-year, part-time model. Students attend courses on Saturdays and complete fieldwork requirements during the second and third years of the program.

Distance Education Model

Fall-Term 1

SW 505 Oppressed Groups

SW 503A Human Behavior and Environment in Multicultural Perspectives: Focus on Prenatal Through Adolescence

Spring-Term 2

SW 503B Human Behavior and Environment in Multicultural Perspectives: Focus on Young Adulthood Through Old Age

SW 592 Community Projects I

Summer-Term 3

SW 550 Computers & Social Services

SW 693 Community Projects II

Fall-Term 4

SW 600 Elective

SW 596A Field Instruction I

SW 500 Foundations of Generic Social Work Practice

Spring-Term 5

SW 594 Research Methods

SW 596B Field Instruction II

SW 560 Direct Intervention: Focus on CYF

Summer-Term 6

SW 600 Elective

SW 698 MSW Thesis I

Fall-Term 7

SW 660 Direct Intervention with Groups and Families

SW 680A Field Instruction III

SW 699 MSW Thesis II

Spring-Term 8

SW 681 Advanced Policy

SW 680B Field Instruction IV

SW 670 Social Work Administration: Focus on CYF

The Older Adults and Families Concentration (OAF)

The Older Adults and Families (OAF) concentration prepares students for practice in the delivery of social services to older adults and their families, in the planning and evaluation of social services and in administration of services and policy development. Students experience one year of placement in a direct practice setting and may select either a direct practice or administrative practice setting for their second year.

Field work placements are available in a variety of agencies in the surrounding five-county area including public and private nonprofit agencies. Typical settings include health care, adult protective services, mental health, community-based outpatient agencies, rehabilitation, programs for the developmentally disabled, substance abuse treatment, senior programs and other specialty services.

Required Courses for OAF Concentration

SW 561 Direct Intervention with Individuals and Families: Focus on Older Adults

SW 661 Direct Intervention with Groups and Families: Focus on Older Adults

SW 670 Social Work Administration

SW 682 Advanced Policy Seminar: Older Adults and Families

SW 596 and SW 680 Field work placement in two different Aging and Family agencies

SW 698/699 Master's Thesis

Two electives (any scheduled electives)

Admission to MSW Program

Students interested in full and part-time study are admitted to the MSW program for the fall or summer semester each year. Prospective students should apply directly to the Department of Social Work as well as to the University. International students must also apply to the Center for International Education (562) 985-5476. The Center begins accepting applications for the following fall term on November 1. Review of applications by the department begins the first week of September. Deadline for application is the second Friday of April by 5:00 p.m.

All students who apply to the Master's of Social Work program must complete the following pre-requisites prior to admission:

- Human Biology/Anatomy or Physiology
- Elemental Statistics

Admission Requirements

To be admitted on a full or part-time basis to the Master of Social Work program, applicants must meet the following criteria:

1. Hold a Bachelor's degree from a university or college of recognized standing, that is grounded in liberal arts, and be eligible for admission to graduate standing at CSULB;

2. Demonstrate satisfactory academic achievement as evidenced by a cumulative undergraduate GPA of 2.50 or above on a 4.0 scale for the last 60 units of course work attempted and/or completed toward degree requirements.
3. Completion of the department's application which requires inclusion of:
 - three reference letters (academic and professional)
 - a summary of volunteer, work experience, and educational background
 - a personal statement
 - results of the Graduate Record Examination (GRE) taken within the past five years. This requirement is waived for applicants who have completed a masters degree within a 5 year period prior to the date of admission.
 - an official copy of all college/university transcripts

Applications that do not contain the above materials are considered to be incomplete, and will not be assessed for admissions decisions.
4. Preadmission interviews may be required by the Program faculty.

Field Work

The field work sequence plays 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 work placements and concurrent enrollment in practice courses during the course of study. Each placement involves 500 hours of field work in a community agency setting and attendance and participation in a field work seminar that meets weekly on campus. The field work sequence encompasses a total of 1000 hours, for which 12 units of academic credit are given. Concurrent and summer block models of field work placement are available. The concurrent model of field work parallels the academic year schedule, with placement beginning in September and continuing through mid May. Students take concurrent coursework and a field seminar while enrolled in field work and are currently in field work two days (16 hours) per week. This must include either two 8-hour week days or one 8-hour weekday and two 4-hour blocks. Some agencies include evening hours. The block model of field work occurs during the late spring and summer months, with students completing 36 hours per week (M-F 8:00 a.m. - 5:00 p.m.) in field work while concurrently taking coursework and a field seminar on the remaining work day.

Students who are employed in social service agencies may request that their agency be evaluated as a site for their field work for the second year of field work. The agency must be able to meet all criteria established by the Department of Social Work to insure the educational focus of field work and provide a significantly different experience. Evaluation of field work sites and approval to utilize an agency of employment as a field work site will be completed by the field work faculty.

The Department of Social Work will reject an applicant or disqualify an enrolled student whose record of academic

achievement or performance in field instruction does not meet the minimum standards of the profession.

Geriatric Social Work Education Consortium

The John A. Hartford Foundation has awarded a 3 year grant to support the development of geriatric field practicum sites. The grant funded an alliance of all of the social work graduate schools and four geriatric service providers in the greater Los Angeles area. This consortium was created and sponsored by the Partners in Care Foundation with the goal of enhancing the quality of life for seniors in health care and social services.

Now with new funding sources, stipends are provided to MSW students in the Older Adults and Families concentration. Information regarding this program is presented to students in the field orientation and applications are made available.

Inter-University Consortium

The IUC (Inter-University Consortium) is one of the specialized training programs in public child welfare available in the MSW program. It is a collaborative partnership that includes the Los Angeles County Department of Children and Family Services and the Paramount School District. The IUC program has been designed to give students exposure to public child welfare practice through assignment of DCFS cases, as well as experience working with groups of children in the school setting.

Title IV-E stipends are available for one (1) year for students enrolled in the full-time 2 year or part-time, other than summer block, model of the MSW program. Students may apply for either the first or second year of field placement. Students accepted into the program must:

- Be enrolled in the MSW program
 - Be enrolled in the Children, Youth and Families concentration
 - Complete one year of fieldwork in the IUC/DCFS placement
- Complete the designated specialty child welfare curriculum which includes:
- SW 643 - Social Work Practice within Child Welfare Services
 - SW 698B/699A - MSW Thesis (IUC students' theses must focus on a child welfare problem or issue)
 - Complete designated specialized training seminars

Students participating in the program must undergo pre-screening for county employment including fingerprinting and DCFS physical and psychological examinations. Students sign a contract committing themselves to one year of full-time paid employment following graduation with Los Angeles County Department of Children and Family Services. Students are responsible for payback of the stipend if they are unable to successfully complete any of the requirements of the program.

CalSWEC

California Social Work Education Center (CalSWEC) is a unique partnership between social work education and the publicly supported child welfare structure. The mission and goals of the Cal SWEC program are to reprofessionalize public child welfare. CalSWEC provides financial support to MSW students in exchange for a commitment to work in a public child welfare agency for a minimum of one year for every year of support received. The intent of the program is to strengthen and enhance the quality of practice by professionally trained and educated public child welfare social workers.

Students must first be admitted into the Children Youth and Family Concentration of the MSW program, after which they submit an application and answer various questions designed to ascertain their interest and level of commitment to a career in public child welfare.

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 weighs 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 Department of Social Work and representatives of public child welfare agencies from counties surrounding the University, will review all applications and finalize selection of candidates to whom the award will be offered. Inter-University consortium students are not eligible for the CalSWEC program.

Full-time CalSWEC Program

The IV-E stipends provide for two (2) years of support for students enrolled in the full-time 2 year model of the MSW program. The student signs a contract to secure full-time employment in a public child welfare agency for two (2) years (one year of employment for each year of support) 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 and participation in the criminal clearance process.

Part-time CalSWEC Program

Students eligible to apply for the part-time CalSWEC reimbursement program must be employees of the County Social Services department that provides the child welfare or assistance benefits eligibility functions. All part-time applicants must provide a letter of support from their agency administrator/director. Financial supports for admitted students will include: full tuition and fees, book costs and a travel allowance. The student will receive the actual cost of tuition and fees based on the percentage of his/her enrollment up to full-time in the MSW program. Each student will receive the actual cost of required books up to \$500.00 per semester. The travel allowance will be determined based on the two-way commuting distance from the student's home or work to the campus and/or field work site and return to that location.

Students participating in the program sign a contract to render one year of continuous and satisfactory full-time employment in their home public child welfare agency for each year of IV-E education support.

CalSWEC Program Requirement

Students participating in the program must meet all of the following criteria:

- Enroll in and successfully complete the Children, Youth and Families Concentration;
- Maintain a B (3.0) average;
- Successfully complete and receive a grade of credit in 1 year of fieldwork in a public child welfare agency;
- Successfully complete and receive a grade of credit in 1 year of fieldwork in a public agency (different from the first year) or a non-profit agency serving IV-E eligible children (in this case IV-E refers to clients who are TANF eligible).

- Have a valid drivers license, current automobile insurance, and secure the use of a car as required by fieldwork.

Complete required specialized Child Welfare Curriculum including but not limited to:

- SW 643 - Social Work Practice within Child Welfare Services;
- SW 698/699 - Masters Thesis with a focus on Child Welfare population, issue area or service delivery systems;
- Attendance at specialized training seminars;
- Students must reimburse CalSWEC if they are unable to successfully complete any of the program requirements.

CalSWEC students are not eligible for the PPS credential.

Pupil Personnel Services Credential with Specialization in School Social Work and Child Welfare and Attendance (code 803)

The California Commission on Teacher Credentialing issues the Pupil Personnel Services (PPS) Credential in four specialization areas: Counseling, School Psychologist, School Social Work and Child Welfare and Attendance. The Department of Social Work, College of Health and Human Services, 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 service in public and other schools requiring the credential. Individuals with the credential in School Social Work and Child Welfare Attendance are pupil advocates, and provide prevention and intervention strategies that remove barriers to learning. These professionals, in partnership with other educators parents and the community maintain high expectations for all pupils, facilitate pupils reaching their highest potential, foster optimum teaching and learning conditions, and prevent school failure. School Social Work is defined as the application of social work principals and objectives to help fulfill the major purpose of the education system: to provide a setting for teaching and learning in which all children can prepare themselves for the world they now live in, and the world they will face in the future.

Child Welfare and Attendance specialists provide assessment and intervention around issues of attendance for pupils.

Requirements

1. Successful completion of all of the requirements for the 60 unit Master of Social Work (MSW) degree within the Children, Youth and Families Concentration. Required coursework will be completed in the following sequence areas: Field Work, Human Behavior and the Social Environment, Social Work Policy, Social Work Practice, and Social Work Research;
2. 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 school social work field work placement;
3. Successful completion of required School Social Work Seminar series presenting specialized topics;

4. Demonstrated knowledge in the following areas of pupil personnel services, as defined in the Commission on Teacher Credentialing Standards: Knowledge of techniques for facilitating individual growth and development to achieve academic success; Knowledge of the wide variety of socio-cultural influences that affect pupils in a school setting; Knowledge of human assessment; Knowledge of problem prevention and early intervention; Knowledge of consultation services; Knowledge of learning theory and psychological education; Knowledge of coordination and development of services; Knowledge of legal enablements and constraints; Knowledge of referral and utilization of services; Knowledge of human assessment as direct services to pupils, Knowledge of social interventions; Knowledge of consultation coordination and development of services; Knowledge of referral, utilization, involvement and use of community resources; Knowledge of social research and services based on research; Knowledge of the code of professional ethics; Knowledge of attendance laws and the rights of minors; and Knowledge of skills using attendance laws and assessment skills.
5. Successful completion of 540 clock hours of field practice in the second year of field, demonstrating all of the required skills and knowledge areas, in an approved PPS site, under the supervision of an experienced MSW level practitioner and an individual who holds a PPS Credential. Supervised hours of field practice will include at least 100 hours in each of two settings (elementary, middle and/or high school), and experience in service delivery with populations representing racial and ethnic diversity, and will cover both school social work and child welfare and attendance competencies and standards.
6. Completion of required Application and forms from California Teachers Credentialing Division, including fingerprints, Certificate of Clearance and Character Reference form;
7. Completion of required health screenings;
8. Successful performance on C-BEST Examination;
9. Certification of program completion and demonstrated competence by the PPS Program Coordinator, Department of Social Work. The student may be required to complete additional course work, field work, or demonstrate specific competencies before approval.
10. Completion of all required forms and procedures of Credential Processing Center, CSULB.

Advancement to Candidacy

A conditionally classified or fully classified student must maintain a minimum GPA of 3.0 on all courses taken subsequent to admission. In addition, a GPA of 3.0 must be maintained in all courses required for the degree. A student will be eligible for advancement to candidacy for the degree after successfully completing 12 units of graduate level courses in Social Work.

All students must demonstrate competency in writing skills. Students must pass the Writing proficiency Examination (WPE) or score at least a "4" on the GRE Writing Assessment. The WPE must be at least attempted during the

first semester of residence in the MSW program. Either the WPE or the GRE Writing Assessment must be passed to advance to candidacy.

Course Load

The California State University, Long Beach requirement for full-time status as a graduate student is 8 weighted units. For part-time students pursuing the M.S.W. degree in the Department of Social Work, the residency requirement is one year of full-time work; therefore, part-time students pursuing the M.S.W. degree must take at least 2 semesters of at least 3 courses or 9 units. Students who wish to complete the M.S.W. degree in 2 years must take an overload of 6 units for 4 semesters or 15 units a semester.

Requirements

The Master of Social Work program requires the completion of 60 semester units. Fifty-four units of required courses and 6 units of scheduled departmental electives must be taken to complete a concentration. In the CYF concentration, 57 units of required courses and 3 units of scheduled departmental electives must be taken by IUC, Cal SWEC and PPS credential students.

The program is taken in one of the four following sequences:

Plan A: (two years)

- Term 1 — SW 500, 503A, 505, 550, 596A; (fall)
- Term 2 — SW 560 or 561, 592, 594, 596B, 503B; (spring)
- Term 3 — SW 660 or 661, 680A, 693, 698A, 500/600 level elective; (fall)
- Term 4 — SW 670, 680B, 681 or 682, 699A, 500/600 level elective; (spring)

Plan B: (four years)

- Term 1 — SW 503A, 505; (fall)
- Term 2 — SW 503B, 550; (spring)
- Term 3 — SW 500, 596A, 500/600 level elective; (fall)
- Term 4 — SW 560 or 561, 592, 596B; (spring)
- Term 5 — SW 660 or 661, 680A, 693; (fall)
- Term 6 — SW 594, 670, 680B; (spring)
- Term 7 — SW 698A, 500/600 level elective; (fall)
- Term 8 — SW 681 or 682, 699A (spring)

Plan C: (three years) (Special Sessions)

- Term 1 — SW 503A, 505, 500/600 level elective; (fall)
- Term 2 — SW 503B, 592; (spring)
- Term 3 — SW 693, 550; (summer)
- Term 4 — SW 596A, 500; (fall)
- Term 5 — SW 596B, 560 or 561, 594; (spring)
- Term 6 — SW 698A, 500/600 level elective; (summer)
- Term 7 — SW 680A, 660 or 661, 699A; (fall)
- Term 8 — SW 680B, 670, 681 or 682. (spring)

Plan D: (Summer Block Model)

- Term 1 (Summer Session) — SW 503A, 505;
- Term 2 — SW 550, 500/600 level elective (fall)
- Term 3 — SW 503B, 592; (spring)
- Term 4 (Summer Session) — SW 500, 560 or 561, 596C, 596D, 698B;

Term 5 — SW 693, 500/600 level elective; (fall)

Term 6 — SW 681 or 682; (spring)

Term 7 (Summer Session) — SW 660 or 661, 670, 680C, 680D, 699B.

Plans C (3 year) and D (Summer Block), which are done through Special and Summer Session Programs, are more expensive due to higher tuition costs.

For other requirements of Master's degree programs, see the University's graduate degree requirements.

Courses (S W)

Lower Division

220. Introduction to Social Welfare (3)

Prerequisite: Completion of GE Foundation requirements. This course offers students a general understanding of social welfare and social work. It provides an analysis of current functions and purposes of social welfare as an institution. The course examines historical and philosophical perspectives on social welfare within the context of cultural, economic, political, psychological and social forces. It also studies the consequences of national welfare in other countries. Introduced in this course are the knowledge, values, and skills that underpin social work practice. Letter grade only (A-F).

221. Introduction to Social Welfare Practicum (3)

Corequisite: SW 220. Consent of instructor. Lecture classes and visiting and observing approved social service agencies and allied activities. Open to social work majors only. Credit/No Credit grading only.

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: Completion of GE Foundation requirements. This course is designed to provide a multi-dimensional view of human development and human diversity from conception through adolescence. A variety of theoretical perspectives will be studied. Emphasis will be on the contexts of development, stressing the ways in which the social environment provides expectations, resources and barriers to human development. The influences of family, peers, institutions and culture will be explored. The effects of socioeconomic status, minority status, sexism and racism will be addressed. The course will offer a comparative treatment of predominant ethnic minority cultures as they interact and interrelate with mainstream society. Implications for social work practice will be discussed. Letter grade only (A-F).

331. Human Behavior and Social Environment: Young Adulthood through Old Age (3)

Prerequisites: Completion of GE Foundation requirements. This course is designed to provide a multi-dimensional view of human diversity and development from late adolescence through death and dying. A variety of theoretical perspectives introduced in SW 330 will be expanded upon and applied to the latter end of the life-span. Emphasis will be on the contexts of development, stressing the ways in which the social environment provides expectations, resources and barriers to human development. The influences of family, peers, institutions and culture will be explored. The effects of socioeconomic status, minority status, sexism and racism will be addressed. The course will offer a comparative treatment of predominant ethnic minority cultures as they interact and interrelate with mainstream society. Implications for social work practice will be discussed. Letter grade only (A-F).

340. Generalist Social Work Practice (3)

Prerequisites: SW 220, 221, 330, 350. Concurrent enrollment in SW 341. Social work practice as a helping process. Common elements for generalist social work practice with all size systems - knowledge, ethics, values, principles, professional relationships, interviewing and beginning assessment and intervention phases. The activities of the social worker in resolution of social, emotional and environmental problems. Open to social work majors only. Letter grade only (A-F).

341. Social Work Practicum (3)

Corequisite: SW 331, 340, and 351. Minimum of 8 hours weekly experience in approved social service or allied setting. Social work field practice including interviewing, assessment, and intervention activities. Credit/No Credit grading only. Open to social work majors only. Not open to students with credit in SW 340A.

350. Social Policy: Law and Court Decisions (3)

Prerequisite: Completion of GE Foundation requirements. Social policy as defined in legislation and judicial decisions affecting the rights of individual families, minorities, and the general welfare. Letter grade only (A-F).

351. Social Policy: Formulation and Analysis (3)

Prerequisites: Completion of 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).

406A. Applications of Social Work with Older Adults. (3)

Prerequisite: Consent of instructor and upper division status. This course provides an intergenerational service learning experience. In the classroom, the students learn about the bio-psycho-social dimensions of the aging process and basic theory and practice of group work with older adults. Students have the unique opportunity to apply this knowledge by co-facilitating weekly discussion/support groups for older adults in independent living communities. Letter grade only (A-F).

406B. Applications of Social Work with Older Adults. (3)

Prerequisite: Consent of instructor and upper division status. Different topics from 406A. This course can be a continuation of SW 406A or may be taken separately. Students who enroll in 406B only will be required to demonstrate knowledge of issues of concern to older adults and basic group work theory and skill. This course addresses advanced group work skills and increased focus on services for older adults. Students will co-facilitate weekly support groups for older adults in independent living communities. Letter grade only (A-F).

423. Child Abuse and Prevention (3)

Examination of child abuse as a social problem; its history and causal factors, including social change and changing family patterns. Intervention practices, including identification and investigation, social services and court intervention will be reviewed, especially the roles of health professionals, criminal justice and corrections personnel, social workers and educators. Finally policy implications will be examined with a focus on policy as intervention, as well as the role of concerned citizens and child advocates. Letter grade only (A-F). Same course as SOC 423.

440. Generalist Social Work Practice with Groups (3)

Prerequisites: SW 331, 340, 341. Concurrent enrollment in 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, 340, 341, 351. Concurrent enrollment in 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, 340, 341. Concurrent enrollment in 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).

465. Research Methods in Social Work (3)

Prerequisites: SW 440 and 442 and one course in elementary statistics. Concurrent enrollment in SW 441, 465 and 495B. This course is an 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).

469./569. Disability, Culture and Society: Issues and Intervention (3)

Prerequisites: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as GERN 469./569 and REC 469./569. Letter grade only (A-F).

480. Social Work with Families and Children (3)

Contemporary social welfare programs designed to meet the physical, psychological, and social needs of families and children. Basic principles and methods of providing services, including the role of the social worker. Letter grade only (A-F).

481. Immigration Issues in Social Work (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Survey of major historical and contemporary issues regarding legal and illegal immigrant populations in California. Origins of the current immigrant flow and international and federal policies and mechanisms which facilitate immigrant entry into the U.S. Designed to assist social welfare services by examining the unique immigrant experience and focusing on select variables which present barriers to immigrant clients in accessing services. Letter grade only (A-F).

484. International Perspectives in Social Welfare for the Elderly (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. Critical analysis of aging problems in developed and developing countries, discussing demographic, socioeconomic and humanitarian issues from a social welfare perspective. Discussion of medical, financial and social service programs for the elderly to meet these needs in various countries. Letter grade only (A-F).

490. Special Topics in Social Work (1-4)

Topics of special interest in social work for intensive study. Topics will be announced in the *Schedule of Classes* each semester. May be repeated with different topics. Open to social work majors only. Letter grade only (A-F).

491. Non-Violent Conflict Resolution: In Your Life, On the Job, With Your Clients and Around the Planet (3)

This course is designed to help the social work student examine conflict and violence, their own and others' responses to conflict situations on the intrapersonal, interpersonal and community levels, and to learn to utilize a set of tools to deal with conflict in a productive, non-violent manner. Same course as I/ST 491. Letter grade only (A-F).

495A. Field Experience in Social Work (7)

Prerequisites: SW 330, 331, 340, 341, 350, 351. Concurrent enrollment in both of the following: SW 440 and 442. Evidence of satisfactory malpractice liability insurance coverage. Open to seniors accepted for fieldwork. This class is the first semester of a two-semester class in which the student completes a year long

internship together with a seminar. Supervised practice experience in social welfare agencies and allied settings. Two hours weekly of campus seminar and 16 hours minimum in agency placement. Credit/No Credit grading only. Open to Social Work majors only.

495B. Field Experience in Social Work (7)

Prerequisites: SW 442 and 495A. Concurrent enrollment in two of the following: SW 440, 441, and 465. Evidence of satisfactory malpractice liability insurance coverage. Open to seniors accepted for field work. This class is the second semester of a two-semester class in which the student completes a year long internship together with a seminar. Supervised practice experience in social welfare agencies and allied settings. Two hours weekly of campus seminar and 16 hours minimum (usually Tuesday and Thursday) in agency placement. Credit/No Credit grading only. Open to Social Work majors only.

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. Foundations for Generalist and Multicultural Social Work Practice (3)

Prerequisite: Concurrent enrollment in SW 596A or 596C. This foundation practice course provides the basic knowledge and skills for generalist and multicultural practice with all size systems. The implementation of principles, ethics, values, professional relationships, interviewing/communication skills and the tasks of the initial, assessment and intervention phases, with attention to multicultural differences and expectations, is stressed. The roles of the social worker are addressed from the ecological systems perspective. Letter grade only (A-F).

503A. Human Behavior and Environment in Multicultural Perspectives: Focus on Prenatal through Adolescence (3)

This course reviews key theoretical frameworks (including psychodynamic, bio-psycho-social, cognitive, systems, learning and role theories) for their clinical application to assessment, diagnosis and treatment of individuals and families. Focus is on the impact of poverty, group conflict and socio-cultural factors in prenatal to adolescent development. Letter grade only (A-F).

503B. Human Behavior and Environment in Multicultural Perspectives: Focus on Young Adulthood Through Old Age (3)

Prerequisite: SW 503A. This course reviews key theoretical frameworks (including psychodynamic, bio-psycho-social, cognitive, systems, learning and role theories) for their clinical application to assessment, diagnosis and treatment of individuals and families. Focus is on the impact of poverty, group conflict and socio-cultural factors in development from young adulthood through old age. Letter grade only (A-F).

505. Oppressed Groups: Social Policy Analysis (3)

This foundation course provides a framework for understanding and synthesizing a large and complex area of knowledge. The primary goal of the course is to develop an understanding of history, structure, and processes of the social welfare system in the United States, social work profession's perspectives on social and economic justices, and issues surrounding equity and fairness. The course will focus on policy practitioners' roles in problem analysis and policy analysis as they apply to oppressed groups. The student will recognize how societal values influence the formation, implementation, and evaluation of social welfare policies, programs, and services. The social, economic, and political context of policy making will be analyzed in order to understand the policy roots of economic and social injustices. Letter grade only (A-F).

540. Social Work Practice in Health Care (3)

This course will cover direct practice issues in a variety of health care settings. Policy issues will also be discussed as they affect or dictate direct practice in various health care settings. Letter grade only (A-F).

550. Computers in Social Work (3)

This course is designed to provide social work students with an overview of computer tools that can be extremely valuable throughout their careers. These tools include statistical software for data analysis and Internet Browser. The course will focus on social work applications of these programs. Successful completion of this course, as well as Social Work 594: Research Methods in Social Work Practice, will enable students to analyze data gathered for the master's thesis. Letter grade only (A-F).

560. Direct Intervention with Individuals and Families: Focus on Children, Youth and Families (3)

Prerequisites: SW 500, 596A, or 596C. Concurrent enrollment in SW 596B or 596D. This course focuses primarily on practice related to personality functioning in, and interpersonal interaction with children, youth, family and adults. Emphasis is on in-depth implementation of the psychosocial study, assessment and intervention. Cognitive-behavioral, family systems, psychosocial and crisis intervention/ brief therapy approaches are examined in relation to the ecological systems framework with special emphasis on additional multicultural perspectives. Letter grade only (A-F).

561. Direct Intervention with Individuals and Families: Focus on Older Adults (3)

Prerequisites: SW 500, 596A or 596C, and concurrent enrollment in SW 596B or 596D. Examination of varied practice strategies in depth. Behavioral, cognitive, humanistic, psychosocial and psychodynamic models viewed in relation to the ecological systems and multicultural perspectives. Focuses on assessment through termination phases of the helping process. Letter grade only (A-F).

562. Social Work and AIDS (3)

This seminar course covers all aspects of AIDS (Acquired Immune Deficiency Syndrome) and HIV(Human Immunodeficiency Virus) relevant to social work practice. The range of topics to be covered is as follows: child welfare, policy, psychosocial issues, counseling, alcohol and drug use, women, people of color, ethical issues, prevention, mental health, elderly, developmental disability, etc. By course end, students should have a solid working knowledge of the issues and concerns related to persons affected by AIDS and HIV. Letter grade only (A-F).

569./469. Disability, Culture and Society: Issues and Intervention (3)

Prerequisites: Senior or graduate status. This is a course using interdisciplinary work about disability as a social construct. Utilizing an oppressed group model, the course will examine society's policies and practices to understand the experience of disability. Includes historical and contemporary perspectives as well as future issues. Social and clinical intervention methods, and program and information resources are covered. Same course as GERN 569./469 and REC 569./469. Letter grade only (A-F).

590. Special Topics (3)

Content may vary from semester to semester. May be repeated under different course topics. Approval of instructor needed. Topics will be announced in the *Schedule of Classes* each semester. Course may be repeated for a maximum of 6 units with different topics for majors and 9 units for non-majors. Letter grade only (A-F).

592. Community Projects I (3)

Community Projects is a two-semester course sequence that focuses on the acquisition and application of macro practice skills to community problems. The purpose of Community Projects I is to provide students with awareness of the values, concepts, frameworks, skills and techniques required to promote social action and planned change in community and other target systems. The course substantive content includes but is not limited to an exploration of macro practice history and methods, the relationship between professional values and ethical dimensions of community practice, socio-political determinants of community problems and preferred interventions, macro practice theory and models. Special emphasis will be devoted to select macro-practice intervention modalities and their implications for culturally diverse, impoverished communities. Letter grade only (A-F).

594. Research Methods in Social Work Practice (3)

An introduction to social work research methods, including research design for both qualitative and quantitative studies. The emphases are on building knowledge and skills for carrying out independent, multiculturally focused research in social work and on the ability to evaluate research findings critically. Letter grade only (A-F).

596A. Field Instruction I (3)

Prerequisite: Concurrent enrollment in SW 500. Evidence of satisfactory malpractice liability insurance coverage. This class is the first semester of a two-semester class in which the student completes a year long internship together with a seminar. Supervised practice experience in a community social agency based upon students' learning needs, interest and area of concentration. Focus on development of foundation of generic interventive modalities in individuals, families, groups and communities with emphasis on cross-cultural practice. Two hours weekly field seminar and 16 hours in agency placement. Credit/No Credit grading only.

596B. Field Instruction II (3)

Prerequisite: SW 500, 596A, or 596C, and concurrent enrollment in SW 560 or 561. Evidence of satisfactory malpractice liability insurance coverage. This class is the second semester of a two-semester class in which the student completes a year long internship together with a seminar. Continuation of supervised practice experience in a community social agency on an advanced level of practice with individuals, groups and communities with emphasis on cross-cultural practice. Two hours weekly field seminar and 16 hours in agency placement. Credit/No Credit grading only.

596C. Field Instruction I (3)

Prerequisite: Concurrent enrollment in SW 500. Evidence of satisfactory malpractice liability insurance coverage. This class is the first semester of a two-semester class in which the student completes a year long internship together with a seminar. Supervised practice experience in a community social agency based upon students' learning needs, interest and area of concentration. Focus on development of foundation of generic interventive modalities in individuals, families, groups and communities with emphasis on cross-cultural practice. Two hours weekly field seminar and 36 hours in agency placement. Credit/No Credit grading only.

596D. Field Instruction II (3)

Prerequisite: SW 500, 596A, or 596C, and concurrent enrollment in SW 560 or 561. Evidence of satisfactory malpractice liability insurance coverage. This class is the second semester of a two-semester class in which the student completes a year long internship together with a seminar. Continuation of supervised practice experience in a community social agency on an advanced level of practice with individuals, groups and communities with emphasis on cross-cultural practice. Two hours weekly field seminar and 36 hours in agency placement. Credit/No Credit grading only.

599. Independent Study (1-3)

Prerequisites: Consent of Department and instructor. Independent study of special topics under supervision of a faculty member. Course may be repeated for a maximum of 6 units. Letter grade only (A-F).

642. Mental Health and the Older Adult: A Multi-Cultural Perspective (3)

The course will focus on a broad-based selection of demographic, psychological and social issues concerned with the older person and their families. Topics will be described and analyzed from preventive, clinical and cross-cultural perspectives. Letter grade only (A-F).

643. Social Work Practice within Child Welfare Services (3)

Prerequisite: SW 503. This course will assist the student in gaining an understanding of the broad field of social work practice commonly known as child welfare services. The content of the course focuses on needs of children for care and protection by society, and programs and services provided by the social welfare and social services delivery systems that are available and needed to insure their well being. Letter grade only (A-F).

660. Direct Intervention with Groups and Families: Focus on Children, Youth and Families (3)

Prerequisites: SW 500, SW 560, SW 596A or SW 596C, SW 596B or SW 596D, and concurrent enrollment in SW 680A or SW 680C. Teaching of advanced specialized skills needed to work with children, youth, adults, families and groups. Focuses on clinical work with groups and families with special emphasis on eco-system and multi-cultural perspectives. Letter grade only (A-F).

661. Direct Intervention with Groups and Families: Focus on Older Adults (3)

Prerequisites: SW 500, SW 561, SW 596A or SW 596C, SW 596B or SW 596D, and concurrent enrollment in SW 680A or SW 680C. Teaching of advanced specialized skills needed to work with adults, families and groups, emphasizing work with the older adults and their families. Focuses on clinical work with groups and families with special emphasis on eco-system and multicultural perspectives. Letter grade only (A-F).

662. Legal Issues in Social Work Practice (3)

Examination of legal aspects concerning children, the family, and the aged, considering such issues as abortion, illegitimacy, right to treatment, mental health commitment procedures, rights of the elderly, children's rights, marriage, and divorce. Legal research methodology and classification of legal resources, principles of legal reasoning, understanding of federal and state court systems. Familiarity with legal assistance programs. Letter grade only (A-F).

663. Assessment and Treatment of Alcoholism and Substance Abuse (3)

Social work practice with individual alcoholics, their family systems, and their community network of collaterals. Awareness of prevalence of alcoholism and drug abuse and significance for clinical social work practice. Dynamics and treatment of disease. Special relationship issues, problems of cross-addictions and polydrug use, resource networks supporting substance abuse services, Fetal Alcohol Syndrome, and problems of special groups: women, minorities, youth and elderly. Letter grade only (A-F).

665. School Social Work (3)

Social work and the public school as a process in school-community-pupil relations. Attention to the school as a social institution and its organization. Social work services in schools as a specialized field of social work practice and its conceptual framework; models of practice; social work roles; and target groups of children to be served. Examination of major socio-legal policy issues. Letter grade only (A-F).

666. Human Sexuality and Social Work (3)

Introduces social work majors to discipline of human sexual behavior. Surveys a range of sexually related issues encountered in therapeutic relationships, as part of administrative duties, and at the social policy level. Presents knowledge base and requires student examination of own attitudes regarding various aspects of human sexuality. Letter grade only (A-F).

667. Sex Roles and Gender Discrimination: Women's Issues in Social Work (3)

This course will examine historical and contemporary causes of gender discrimination against women in order to illuminate the problems faced by women at risk in American society. The special focus of the course will be women at risk for mental health problems, violence and poverty along with other critical issues affecting women, such as substance abuse and eating disorders. Letter grade only (A-F).

668. Social Work in Neighborhoods (3)

Designed as an introduction to the concept of neighborhoods and prepares students to assume social work roles and functions in neighborhood settings. Emphasizes the necessity of understanding the culture, physical and social organization, and power relationships of modalities: planning and service delivery, development, and organization. Letter grade only (A-F).

670. Social Work Administration (3)

Prerequisites: SW 500; 560 or 561; 596A or C, 596B or D, 660 or 661, and concurrent enrollment in 680B or D. This course addresses the basic processes of management in public and voluntary social welfare and human services agencies. It examines the foundation for effective organizational leadership as well as problem solving, using theories of organizational behavior and management. The course offers frameworks for governance, planning, monitoring, information management, human resources, fiscal responsibility, quality assurance, and community relations. Attention is given to the external forces that affect agencies, including interorganizational relationships. Integrated into the course is content on human diversity, and how multiculturalism and gender issues influence the internal structure of agencies, the management of their workforce, and their provision of services. This course should be useful for students interested and/or involved in organizational change, and agency and program management. Letter grade only (A-F).

672. Program Evaluation in Social Services (3)

Introduction to prevailing types of problem evaluation and preparation for continual evaluation checks or self evaluations as conducted within service agencies. Conceptualization of service delivery system. Program planning evaluation, program monitoring, impact evaluation, and cost-benefit and cost-effectiveness analysis. Letter grade only (A-F).

673. Supervision/Staff Development/Consultation (3)

Prerequisites: SW 500; 560 or 561; 596A or C, 596B or D, 660 or 661, and concurrent enrollment in 680 B or D. This course reviews the philosophy, objectives, principles and methods of social work supervision, staff development, and consultation. Consideration is given to the similarities and differences in the roles, knowledge, and skills required, emphasizing the teaching-learning-evaluating components. Issues arising from organizational settings, changing legislation, and program provisions and professional standards are identified and examined. Letter grade only (A-F).

674. Clinical Diagnosis and Therapeutic Communication (3)

This course is designed to review the major theoretical approaches to social work treatment. It is designed to teach specific clinical interventions from various theoretical perspectives. The student will be trained to skillfully and therapeutically intervene with a variety of DSM-IV diagnostic categories. Psychotherapy outcome research will be surveyed with emphasis upon client, therapist, and treatment factors. Letter grade only (A-F).

676. Family Centered Social Work Practice: An Introduction to Theory and Techniques of Family Therapy (3)

This course is an advanced specialist overview of evolving viewpoints, perspectives, values, intervention techniques and goals of family therapy. The family is viewed as the unit of attention and target of intervention. The course will emphasize the development and enhancement of knowledge, skills, theories and values specific to family therapy and social work practice. Letter grade only (A-F).

677. Social Work Practice in Mental Health (3)

This course will review the changing roles of social work in mental health settings, the influence of new psychosocial and psychiatric theories on the care and treatment of mentally disordered clients. Focus on social, economic and cultural factors as they affect social work roles in mental health policies and programs and clinical practice. Letter grade only (A-F).

680A. Field Instruction III (3)

Prerequisites: SW 500, 560 or 561, 596A/C, 596B/D, and concurrent enrollment in SW 660 or 661. Evidence of satisfactory malpractice liability insurance coverage. This class is the first semester of a two-semester class in which the student completes a year long internship together with a seminar. Supervised social work practice in a community social agency with focus on advanced direct practice skills and administrative program development areas with emphasis on cross-cultural practice. Two hours bi-weekly in field seminar and 16 hours in agency placement. Credit/No Credit grading only.

680B. Field Instruction IV (3)

Prerequisites: SW 500, 560 or 561, 596A/C, 596B/D, 680A/C, 660 or 661 and concurrent enrollment in SW 670. Evidence of satisfactory malpractice liability insurance coverage. This class is the second semester of a two-semester class in which the student completes a year long internship together with a seminar. Continued supervised social work practice in a community social agency at an advanced level in both direct practice and administration within the student's area of concentration. Preparation for entering professional employment with emphasis on cross-cultural practice. Two hours bi-weekly in field seminar and 16 hours in agency placement. Credit/No Credit grading only.

680C. Field Instruction III (3)

Prerequisites: SW 500, 560 or 561, 596A/C, 596B/D, and concurrent enrollment in SW 660 or 661. Evidence of satisfactory malpractice liability insurance coverage. This class is the first semester of a two-semester class in which the student completes a year long internship together with a seminar. Supervised social work practice in a community social agency with focus on an advanced direct practice skills and administrative program development areas with emphasis on cross-cultural practice. Two hours bi-weekly field seminar and 36 hours in agency placement. Credit/No Credit grading only.

680D. Field Instruction IV (3)

Prerequisites: SW 500, 560 or 561, 596A or 596C, 596B or 596D, 680C, 660 or 661. Evidence of satisfactory malpractice liability insurance coverage. This class is the second semester of a two-semester class in which the student completes a year long internship together with a seminar. Continued supervised social work practice in a community social agency at an advanced level in both direct practice and administration within the student's area of concentration. Preparation for entering professional employment with emphasis on cross-cultural practice. Two hours bi-weekly in field seminar and 36 hours in agency placement. Credit/No Credit grading only.

681. Advanced Policy and Political Action: Children, Youth and Families (3)

Prerequisite: SW 505. This course is designed to provide students with an advanced understanding of key issues, concepts, and skills associated with policy analysis, the development of policy alternatives, and political action on behalf of families and children in contemporary American society. Letter grade only (A-F).

682. Advanced Policy Seminar: Older Adults and Families (3)

This course is designed to provide students with an advanced understanding of key issues, concepts, and skills associated with policy analysis, the development of policy alternatives, and political action on behalf of older adults and their families in contemporary American society. Letter grade only (A-F).

683. Brief Treatment (3)

Building on content in SW 500, SW 560-561, and other practice courses, this course covers the methodologies used in the basic forms of brief and/or time limited psychotherapy. In recent years brief interventions have become even more a part of the repertoire of the therapeutic community, primarily due to two factors: the empirical research which shows that brief treatment is effective in reducing or eliminating client problems in living and, secondly, insurance policies, managed healthcare and mental health programs will only pay for 20 or so sessions of mental health treatment per year. This course covers the major forms time-limited clinical treatment. By course end, students will have a working knowledge of the methods used in the models, the ethnic, gender and other-sensitivity of the forms of treatment, and the empirical research that supports their use. Letter grade only (A-F).

690. Special Topics in Graduate Social Work (3)

Prerequisites: Consent of Department. Topics of special interest in social work selected for intensive study. Topics will be announced in the *Schedule of Classes* each semester. Letter grade only (A-F). Course may be repeated for a maximum of 6 units with different topics.

691. Non-Violent Conflict Resolution: In Your Life, On the Job, With Your Clients, and Around the Planet (3)

This course is designed to help the social work students examine conflict and violence, their own and others' responses to conflict situations on the intrapersonal, interpersonal and community levels, and to learn to utilize a set of tools to deal with conflict in a productive, non-violent manner. Although the basic course material is similar for the undergraduate and graduate level, the readings, assignments, and expectations differ for these distinct student populations. Letter grade only (A-F).

693. Community Projects II (3)

Prerequisite: SW 592. Community Projects II is designed to integrate student's knowledge of cross-cultural practice, human behavior and research in the context of identifying solutions to social problems. This "hands on" course builds on the analysis of the neighborhood, community or organizational problem that the student task groups completed in Community Projects I. Utilizing planning, program development and program implementation skills/techniques; students are required to develop, implement and evaluate the impact of an intervention which they designed to control, alleviate and/or eradicate the causes or consequences of the problem for the affected population. Letter grade only (A-F).

698A. MSW Thesis I (3)

Prerequisites: 30 units in the MSW program completed at a minimum GPA of 3.0, Advancement to Candidacy. This is the first semester of a two-semester tutorial class in which the student completes an individual research project which meets University thesis requirements. Letter grade only (A-F).

698B. MSW Thesis I (3)

Prerequisites: 30 units in the MSW program completed at a minimum GPA of 3.0 and Advancement to Candidacy. This is the first semester of a two-semester tutorial class in which the student completes an individual research project which meets University thesis requirements. Letter grade only (A-F).

699A. MSW Thesis II (3)

Prerequisites: 33 units in the MSW program completed at a minimum GPA of 3.0, Advancement to Candidacy, and successful completion of SW 698A or SW 698B. This is the second semester of a two-semester tutorial class in which the student completes an individual research project which meets University thesis requirements. Final comprehensive examination not required. Letter grade only (A-F).

699B. MSW Thesis II (3)

Prerequisites: 33 units in the MSW program completed at a minimum GPA of 3.0, Advancement to Candidacy, and successful completion of SW 698A or SW 698B. This is the second semester of a two-semester tutorial class in which the student completes an individual research project which meets University thesis requirements. Final comprehensive examination not required. Letter grade only (A-F).

TEACHER EDUCATION

College of Education

Department Chair

Catherine C. DuCharme

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Distinguished Teacher in Residence

Huong Nguyen

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department of Teacher Education offers professional education course work that leads to the (a) Multiple Subject Credential and the (b) Single Subject Credential. (Please consult the "Single Subject Teacher Education" section of the University Catalog for information on admission criteria and program requirements for the Single Subject Credential Program). The department also offers a Master of Arts in Education with options in either Elementary or Secondary Education. Advanced credentials are offered including the Early Childhood Specialist Credential and the Reading and Language Arts Specialist Credential. All College of Education courses including graduate level (500/600) are assumed to be Letter grade only (A-F) unless stated otherwise.

Multiple Subject Credential Program (code 200)

A teacher with a Multiple Subject Credential is authorized to teach grades pre-K through 12 in self-contained classrooms. The Multiple Subject Credential Program (MSCP) at CSULB prepares students to be credentialed in the State of California for elementary and middle school instruction. The program allows for daytime field experiences in elementary classrooms and includes methodology courses and student teaching. Courses for the MSCP can be completed in one summer and two semesters or three semesters, depending upon prerequisites (based on full-time attendance unit loads – see the current copy of the *Schedule of Classes* for full-time unit load requirements). Part-time attendance is allowed, but program requirements must be met within seven years from the date of admission to the program.

Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis Multiple Subject Credential Program may be added as an emphasis to any credential. Spanish emphasis is offered on campus. Asian Language emphasis in Vietnamese, Cambodian (Khmer), Korean and Chinese are offered through a consortium of CSU campuses in the Los Angeles area. See Asian BCLAD faculty for requirements. BCLAD in Mexico provides a Multiple Subject Credential with Spanish BCLAD emphasis during a year in Querétaro, México. CSULB and nine other CSU campuses statewide offer this credential in conjunction with the Office of International Programs. A K-12 BCLAD certificate for credentialed teachers is now available. See Teacher Education BCLAD faculty or the Center for International Education for requirements. BCLAD may also be added by passing State Examinations 4, 5 and 6.

To add the international BCLAD certificate the following courses are required: EDEL/EDSE 541, 542; SPAN 322, 445.

Four Multiple Subject Credential Program (MSCP) tracks are offered:

- 2042 Preliminary Multiple Subject Credential Program
- Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis Multiple Subject Credential Program
- Multiple Subject Teaching Internship Program
- Integrated Teacher Education Program (ITEP)

Integrated Teacher Education Program (ITEP)

See the Liberal Studies section of this catalog.

Preliminary Multiple Subject Credential

Students completing any of the four tracks of the MSCP and demonstrating effective use of technology at a "basic" level (level 1) will be recommended for the Preliminary Multiple Subject Credential, which is issued for a five-year period. To renew this credential, the holder must meet requirements for the Professional Clear Credential.

Note: For demonstrating "basic" level (level 1) technology, see your credential advisor or the multiple subject office for courses or options for completing this requirement.

Professional Clear Credential

To earn the Professional Clear Credential, you must complete a two-year induction program as a beginning teacher in a public school district in California. Any questions regarding the Clear Credential requirements should be directed to a credential analyst in the Credential Center in ED1-42, (562) 985-4109.

The following sections apply to all MSCP tracks:

Admission

Before beginning the MSCP, 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, however, does not constitute admission or acceptance to the MSCP. A separate application must be submitted to the MSCP Admissions Office in order to be considered for acceptance into the MSCP.

Multiple Subject Credential Program Structure

The MSCP is separated into three successive phases. Students may not advance to the next phase before completing the previous one.

- Phase One - Students complete program prerequisite(s) and submit applications to the MSCP Admissions Office. Students must be accepted to one of the MSCP tracks before advancing to Phase Two.
- Phase Two - Students complete core requirements and subject matter competency.
- Phase Three - Students complete student teaching.

Subject Matter Competency

All students admitted to the MSCP must meet Subject Matter Competency before beginning Student Teaching. At CSULB, Subject Matter Competency can be accomplished in one of two ways: (a) pass the Multiple Subject Assessment for Teachers (MSAT) exam, or (b) submit verification of subject matter competency from an approved subject matter preparation program. For more information about the Subject Matter Competency requirements, please contact the Credential Center at (562) 985-4109.

Student Teaching

The culminating field experience (EDEL 482, 482B, 482C or 572A and 572B) is the final phase of the MSCP. A separate application for this phase is required, and must be submitted in person to the Multiple Subject Field Programs Office located in ED1 -50 and 51. Applications for Student Teaching must be submitted one semester prior to the first assignment. Application packets are distributed at the Student Teaching

Application meetings. Student Teaching Application meetings are held during the first two weeks of each semester. Dates are announced in methods courses and are posted throughout the ED-1 and ED-2 buildings well in advance of the actual meeting dates. Deadlines for submitting applications to student teach are:

Summer/Fall: March 1

Spring: October 1

Student Teaching Tracks

Student Teaching is a full-day experience with one assignment in a primary classroom (grades K-3) and one assignment in an intermediate classroom (grades 4-6), with at least one grade level separation (e.g., 2,4; 3,5). All students must have one placement in a K-3 classroom where they can gain experience with early literacy instruction utilizing a balanced and comprehensive approach to reading. One student teaching assignment must be in a public school. It is possible to complete student teaching during one regular semester or two consecutive summers, one entire summer (limited availability), or one summer and part of one regular semester.

It is possible for student teaching to be completed while employed as an emergency permit teacher within the CSULB service area. See the Field Programs Office for details.

Student Teaching Admission Requirements

1. Admission to one of the MSCP tracks;
2. Passage of the California Basic Educational Skills Test (CBEST);
3. Have completed program prerequisites and core requirements in Phases 1 and 2 of one of the MSCP tracks. Students must pass all five methods courses with no grade lower than a "C" and an overall GPA of 3.0 or higher in the program;
4. Passage of the Multiple Subject Assessment for Teachers (MSAT) is required of all non-Liberal Studies majors. This exam may be waived by submitting verification of successful completion of an approved subject matter preparation program and all subject matter competency requirements must be completed prior to student teaching;
5. A tuberculosis skin test or chest x-ray valid through completion of student teaching;
6. Have received a grade of "C" or higher in EDEL 420 if student wishes to student teach at the kindergarten level;
7. Have submitted a certificate of clearance or proof of filing with Sacramento;
8. Have applied for a Grad Check for the Liberal Studies Certificate (non-Liberal Studies majors only). Must meet with the Liberal Studies Department prior to this application.
9. Have submitted a student teaching application, and an internship application if applying for an internship.

Multiple Subject Credential Program Track

All candidates are required to comply with all program policies and procedures detailed in the MSCP Handbook which is available for purchase at the Campus Copy Center (562) 985-5050.

Admission Requirements

1. Attend a MSCP group advisement meeting either before or while enrolled in EDEL 380.
Students are recommended to obtain program brochures for the specific program tracks which contain a schedule of group advisement meetings.

2. Complete all prerequisites for the specific MSCP track.
3. Submit a negative tuberculosis skin test or chest X-ray taken within the last three years.
4. Submit one photocopy of all university and/or college transcripts.
5. Submit proof of having taken the California Basic Educational Skills Test (CBEST)
6. Submit three letters of recommendation.
7. 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.
8. Attend an oral interview with a department faculty advisor.
9. Submit the MSCP application packet along with documents verifying that the above prerequisites will be completed prior to the semester methods courses will be taken, as follows:

Summer/Fall: January 1 – March 1, June 15-July 15 (see note)

Winter/Spring: August 1 – October 1

THE ABOVE DEADLINES ARE STRICTLY ENFORCED

NOTE: Students enrolled in one or more prerequisite courses in summer session will be allowed to submit MSCP application packets June 15- July 15.

Students who complete prerequisites by the end of the summer may be admitted and begin taking methods immediately in the fall semester if all other admissions requirements are met. Students must receive a grade of "B" or higher in EDEL 380.

Track One – 2042 Preliminary Multiple Subject Credential Program

A teacher with a Multiple Subject Credential is authorized to teach pre-K through 12 in multiple subject self-contained classrooms.

Prerequisites (9 units): EDP 303*; EDEL 380*, 413, 431

Core (15 units): EDEL 442, 452, 462, 472, 475**

Student Teaching (16 units): EDEL 482

*EDP 303 and EDEL 380 must be taken concurrently.

**EDEL 475 must be taken concurrently with EDEL 482.

Track Two – Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis

Bilingual students (English and Spanish, Cambodian [Khmer], Vietnamese, Korean, or Chinese [Mandarin or Cantonese]) in this track must be admitted to the Bilingual Cross-cultural Language and Academic Development (BCLAD) Emphasis Multiple Subject Credential Program. Ability to converse fluently in a Language of Emphasis is required.

Undergraduates should complete the liberal Studies baccalaureate program with an appropriate concentration. Spanish BCLAD students should take the Bilingual Spanish-English concentration; Asian BCLAD students should take the Language Other than English or U.S. Multicultural Studies concentration.

All candidates must fulfill both 2042 Preliminary MSCP and BCLAD program requirements.

Spanish/English BCLAD Emphasis

Bilingual Cross-Cultural programs prepare students for teaching in Bilingual Education and English Language Development settings where Spanish is required for instruction, support, and communication with parents and other specified professional communication. BCLAD includes all the general requirements plus: Teaching pedagogy and practicum in a second language; Culture of Emphasis (by coursework or examination) and Fluency of Spanish (by examination). (Total units: 43 plus culture and language of emphasis.)

Prerequisites

EDEL 380 (3 units) with a "B" or better, ED P 303 (1 unit), Complete Admission to the MSCP. Group Information and Application meeting and preliminary interview with faculty member and signature required.

Core Courses (listed in recommended sequence)

EDEL 413 (2 units). Until December 2003, you will be able to substitute this course with either EDEL 429/LING 429/EDP428/FCS409 or a combination of two courses as follows: One of: CD 329 or LING 329 or ED P 454 and one of: ED P 301 or HDEV 3071 or PSY 361

EDEL/EDP/LING 431 (3 units). You will be able to substitute this course with a combination of two courses as follows: One of: ANTH/LING 425 or AIS/ASAM/B/ST/CHLS/W/ST 319 or EDEL/430/ED P 432 and ED P/LING 485

ED P/LING 485 or ED P/EDEL 439 (3) units

Subject Specific Pedagogy Courses

Note: You must be admitted to the Multiple Subject Credential Program to take the following pedagogy courses. 150 hours as a teacher, assistant or volunteer in a multilingual setting is required in lieu of an off-campus daytime pedagogy course

EDEL 452B (BCLAD) (3 units)

EDEL 442 (3 units) FA Footnote section recommended

EDEL 462 (3 units) FA Footnote section recommended

EDEL 472 (3 units) FA Footnote section recommended

Corequisites (0-18 units)

To be completed before Student Teaching:

Culture of Emphasis: CHLS 340 or 350 (3 units) or BCLAD Exam #5

Language of Emphasis: BCLAD Exam #6 Spanish 312, 313, and 322 recommended (9 units)

LING 329 or ED P 454 strongly advised for language acquisition background.

Student Teaching and Subject Specific Pedagogy in Science, Note: You must attend a Student Teaching Application Meeting and apply to student teach the semester before you take this course. Student teaching while employed is available; see advisor for details. EDEL 475 must be taken concurrently with EDEL 482.

EDEL 482B or 482C (16 units); EDEL 475 (3 units)

The CSULB BCLAD Emphasis may be obtained through the Internship program, through international immersion in Querétaro, México, or added to CLAD at a later date through examinations. For more information contact Dr. John Attinasi, Bilingual Director at (562) 985-4955, <http://www.csulb.edu/~jattinas>, or Dr. Olga Rubio, BCLAD Advisor at (562) 985-5450.

Also required are BCLAD Examinations #5 and #6. For Spanish BCLAD, Examination #5 may be waived by Latino studies coursework (3 units, either CHLS 340 or 350). For Asian

BCLAD, see coordinator for appropriate course listing. Liberal Studies Bilingual Spanish-English Concentration courses are recommended preparation for these requirements. Examination #6 fulfills the CLAD foreign language requirement.

The BCLAD program offers a limited number of special bilingual sections of EDEL methods courses each semester; these sections are marked FA in the footnote. These sections are offered in the evening and contain demonstrations and assignments in Spanish and English. These sections provide enrichment opportunities for bilingual candidates to practice primary language pedagogy. BCLAD students may take any section of EDEL 442, 462, 472, and 475. The culture component for the BCLAD is fulfilled in the Liberal Studies Bilingual concentration. Students completing a non-Liberal Studies bachelor's degree or those with a degree obtained from another university must complete the equivalent of the culture/history (CHLS 340 or 350 or BCLAD Examination #5). All BCLAD candidates must pass BCLAD Examination #6 (speaking, listening, reading and writing) in the language of emphasis prior to completion of the program.

Asian Languages/English BCLAD Emphasis

To help meet the increased demand for qualified Asian bilingual/bicultural teachers, six Los Angeles area California State Universities have formed an Asian BCLAD Consortium. The Consortium offers a unique inter-campus collaborative program through which qualified candidates may earn a BCLAD Multiple Subject Credential in Cantonese, Khmer, Korean, Mandarin or Vietnamese (Total units: 46 plus BCLAD Test)

Prerequisites

EDEL 380 with a "B" or better; ED P 303; complete Admission to the MSCP. Group Information and Application meeting and preliminary interview with Asian BCLAD Coordinator and signature required.

Core Courses (listed in recommended sequence)

EDEL 413. Until December 2003, you will be able to substitute this course with either EDEL 429/LING 429/EDP428/FCS409 or a combination of two courses as follows, one of: CD 329 or LING 329 or ED P 454 and one of: ED P 301, HDEV 307I PSY 361.

EDEL/EDP/LING 431. You will be able to substitute this course with a combination of two courses as follows, one of: ANTH/LING 425 or AIS/ASAM/B/ST/CHLS/W/ST 319 or EDEL/530/ED P 432 and ED P/LING 485.

Asian BCLAD Requirements

Culture of Emphasis: one for each language program (3 units):

Chinese (Cantonese & Mandarin) - EWS 301, Cal Poly Pomona

Cambodian - ASAM 334, CSU Long Beach

Korean - AAS450, CSU Northridge or TED 495, CSU Dominguez Hills

Vietnamese - ASAM 333, CSU Long Beach

Language of Emphasis – BCLAD Examination #6. See program advisor for recommended courses as preparation for the exam.

Bilingual Pedagogy: one for each language program (3 units):

Cantonese/Mandarin - EDEL 400 (Cantonese/Mandarin), CSU Los Angeles or EDEL 452C (Cantonese/Mandarin), CSU Long Beach

Cambodian - EDEL 452 (Cambodian), CSU Long Beach

Korean - EED 520BL (Korean), CSU Northridge or TED 515A (Korean), Cal Poly Pomona or TED 494S (Korean) CSU Dominguez Hills

Vietnamese - EDEL 452 (Vietnamese), CSU Long Beach or EDEL 448 (Vietnamese), CSU Fullerton

Language and Bilingual Pedagogy courses may be taken before admission to the MSCP Program. See Coordinator of Asian BCLAD Consortium, Dr. Ping Liu, for information

Subject Specific Pedagogy Courses

You must be admitted to the Multiple Subject Credential Program to take the following pedagogy courses.

EDEL 442, EDEL 452, EDEL 462, EDEL 472

Important: At least one pedagogy course must be taken OFF-CAMPUS at an elementary school site during daytime school hours, and at least one must be taken ON-CAMPUS

Student Teaching and Subject-Specific Pedagogy in Science Education

Note: You must attend a Student Teaching Application Meeting and apply to student teach the semester before you take this course. EDEL 475 must be taken concurrently with EDEL 482.

EDEL 482 (16 units), EDEL 475 (3 units)

For more information, please contact Dr. Ping Liu, Asian BCLAD Coordinator at (562) 985-9306 or by email to pliu@csulb.edu.

Track Three – Multiple Subject Teaching Internship CLAD/BCLAD Emphasis

An intern program for full-time teachers in districts with which CSULB has an intern agreement and a contract. All students in this program must be employed by the district as the full-time teacher of record in a multiple subjects classroom and have demonstrated subject matter competence by an approved degree program or passage of MSAT or CSET. (Total units: 40)

Student Teaching/Internship (16 units): EDEL572A-B. Students must be supervised in both primary language and English language development settings.

Student Teaching/Internship (16 units): EDEL 572A-B

Pre-Application Requirements

- Meet Subject Matter and U.S. Constitution requirements
- Pass CBEST
- Hold Bachelor's degree
- Assigned full-time to self-contained K-8 multiple subject classroom
- Meet University GPA of 2.67

Prerequisites

EDEL 380A (with a "B" or better, requires 120 hours of approved field work), ED P 303 and, complete admission to the MSCP

Core Courses

Note: May be taken prior to being admitted to the MSCP.

EDEL 413. Until December 2003, you will be able to substitute this course with either EDEL 429, LING 429, EDP428, FCS409 or a combination of two courses as follows, one of: CD 329, LING 329, ED P 454 and one of: ED P 301, HDEV 307I, PSY 361.

EDEL/EDP/LING 431. You will be able to substitute this course with a combination of two courses as follows, one of: ANTH/LING 425 or AIS/ASAM/B/ST/CHLS/W/ST 319 or EDEL/530/ED P 432 and ED P/LING 485.

Subject Specific Pedagogy Courses

You must be admitted to the Multiple Subject Credential Program to take the following: EDEL 442, 452, 462, 472.

Student Teaching and Subject-Specific Pedagogy in Science Education

Note: You must attend a Student Teaching Application Meeting and apply to student teach the semester before you take this course.

EDEL 572 A & 572B (16 units), EDEL 475 (3 units)

Additional Requirements for BCLAD (5-8 units)

EDEL 452B (1 unit); EDEL 473B (1 unit); EDP/LING 485 or EDEL/EDP/EDSE 439; and BCLAD Examinations #5 and #6. Examination #5 may be waived by coursework (3 units). Examination #6 fulfills the CLAD foreign language requirement.

For more information on the application process, please contact Patricia Burn, Intern Coordinator at (562) 985-4506 or the Student Information Center in ED 1 – 17 (562) 985-9259.

Track Four – Integrated Teacher Education Program

For Integrated Teacher Education Program (ITEP) requirements, please see the Liberal Studies section of this catalog.

Early Childhood Specialist Credential (code 430)

This advanced credential program is integrated with various field experiences. Course requirements for the master's degree, Elementary Education Option with a specialization in Early Childhood Education closely coincide with those of this advanced credential program. All courses in this program are applicable toward Child Development Permits.

Admission Requirements

1. Admission to the University;
2. A minimum GPA of 2.85 in the last 60 semester units of course work;
3. Pass the Writing Proficiency Examination (WPE) or CBEST;
4. Possess a valid basic teaching credential or be in the process of completing the Multiple Subject Credential Program;
5. Provide three letters of recommendation;
6. Verification of successful experiences with young children;
7. Submit a personal statement of teaching philosophy;
8. Complete a personal interview with the Director of the Graduate Program in ECE;
9. Complete a self-assessment of competency in Early Childhood Education;
10. File an approved individual program plan developed with an advisor.

Prerequisite

ED P 301

Requirements

1. All of the following courses (37 units): EDEL 420, 421, 422, 452 or 462, EDEL/EDSE 500A or 501, EDEL 522, 523, EDEL/EDSE 530, EDEL 621, 682, and 526 or EDP 604;
2. Verification of two years of successful teaching experience, including a minimum of 90 hours in each of the following areas, is required of all candidates prior to completing the Specialist Credential program - a. preschool; b. kindergarten or the primary grades (1-3); c. multicultural settings.

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, while others may wish to complete it as a prerequisite to the Reading/Language Arts Specialist Credential Program.

Before completion of requirements for the Reading Certificate, the candidate must provide verification of three years of full-time teaching experience in any grades pre-school through adult, exclusive of student teaching, internship teaching, or teaching while holding an emergency credential or permit.

Admission Requirements

1. Bachelors degree and Multiple Subject or Single Subject Credential, or equivalent; CLAD certification strongly recommended;
2. ENGL 481 or ENGL 482, or current equivalent course in children's or adolescent literature;
3. A minimum grade point average of 3.0 in the last 60 units of university course work;
4. Two letters of recommendation, at least one from a supervisor;
5. An autobiography and statement of intent;
6. Interview with program faculty;
7. For secondary teachers, EDEL 452 or equivalent is strongly recommended.
8. Separate program application is required.

Requirements

EDEL/EDSE 540, 551, 558, 559.

Reading and Language Arts Specialist Credential (code 410)

The Reading/Language Arts Specialist Credential prepares teachers to become school and district literacy leaders and supervisors. The reading/language specialist's role is multifaceted, including diagnostician, teacher of intervention for children or youth with delayed literacy development, collaborator with other school and district specialists, provider of professional development for classroom teachers, and reading program coordinator or facilitator.

Admission Requirements

Successful completion of the Reading Certificate program, or a valid Reading Certificate, or equivalent.

Requirements

EDEL/EDSE 544, 554, 556, 651, 543

Note: All courses required for the Reading/Language Arts Specialist Credential can be applied to the MA in Elementary or Secondary Education: Specialization in Reading. See Catalog program description and the faculty advisor in the Department of Teacher Education for more information.

Master of Arts in Education

Option in Elementary Education (code EDELMA01)

Requirements

A minimum of 30 units (33 units for Reading) is required with at least 21 units in the 500/600 level series at this University. In consultation with the Advisor of Curriculum and Instruction, Early Childhood Education, Reading and Language Arts, or Middle Level Education or designated faculty, students will select a comprehensive examination track, thesis track, or project track.

Curriculum and Instruction Specialization (30-36 units)

Admission

Submit a separate program application to the College of Education. (Applications are available in the College Graduate Studies Office, ED1-7).

Prerequisite

A valid multiple subject teaching credential or by permission.

Requirements

1. Methods of Social Science Inquiry (6 units): EDP 400 (3 units) and one of the following courses (3 units): EDP 520 or EDEL 533 (comprehensive exam track); or EDP 595 or EDP 696 (thesis track)
2. Core (15 units): EDEL 500, 505, 530, 615, and 625.
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.
- 4A. Advanced Methods (9 units): EDEL 540, 560, 570; or
- 4B. Advanced Coursework in Educational Technology: 9 units selected from the following courses: EDP 542; ETEC 523, 525, 530, 551, 553;
- 4C. 9 units of advanced coursework in a self-selected concentration chosen in consultation with an advisor.
5. Capstone: (Choose A or B option in consultation with advisor).
 - A. Comprehensive examination.
 - B. Thesis and EDEL 698 (6 units)

Early Childhood Education Specialization (30-36 units)

Prerequisites

EDP 301, or HDEV 307I, or PSY 361 or equivalent, EDEL 420, and EDEL 482 or one year of documented and approved teaching experience.

Core Requirements

1. One of the following (3-6 units): EDP 400; or EDP 419 and EDP 420
2. One of the following (3 units): EDP 500 (comprehensive exam track) or EDP 696 (thesis track)
3. The following (3 units): EDEL 530
4. One of the following chosen in consultation with an advisor (3-6 units): EDEL 695C and Written Comprehensive Examination (3 units) or EDEL 698 Thesis (6 units)

Specialization Requirements

1. All of the following: EDEL 421, 422, 522, 621
2. Two of the following: EDEL 523, 526, 622, or EDP 604

Reading and Language Arts Specialization (33-36 units)

Prerequisites

A valid multiple subject or elementary teaching credential; CLAD certification is strongly recommended. ENGL 481 or ENGL 482 or approved equivalent (can be taken concurrently with program requirements); submit a program application, transcripts showing posted degree and last 60 semester units or 90 quarter units; 2 letters of recommendation from educators, one of which is from a supervisor; and an autobiographical essay, and interview with program faculty

Program Requirements

1. All of the following (27 units): EDEL 540, 544, 551, 554, 556, 558, 559, 651, and EDP 595/LING 595 (Please contact advisor prior to beginning coursework)
2. One advisor-approved elective (3 units)
3. One of the following chosen in consultation with the program advisor (3-6 units): EDEL 695 and Written Comprehensive Examination (3 units) or EDEL 698 Thesis (6 units)

Middle Level Education Specialization (30-36 units)

Admission

Submit a separate program application to the College Of Education. (Applications are available in the College Graduate Studies Office, ED1-7).

Prerequisites

A valid multiple or single subject or other valid California teaching credential; one year of middle level teaching experience or middle level student teaching; and one of the following: EDP 302 or equivalent.

Requirements

1. Methods of Social Science Inquiry (6 units)
 - A. ED P 400 (3 units)
 - B. One of the following courses (3 units): ED P 520 or EDEL 533 (comprehensive exam track); or ED P/LING 595 (project track).
2. Core (24 units)
 - A. All of the following (9 units): EDEL 500, 505, and 530
 - B. All of the following (9 units): EDMS 582, 584, and 693.
 - C. One of the following (3 units): EDEL 540, 560, or 570
 - D. One advisor-approved elective (3 units)
3. Capstone (Choose A or B in consultation with advisor.)
 - A. Comprehensive examination
 - B. Project: EDMS 695 (6 units)

Clear Conditional Admission

1. Completion of program prerequisites.
2. A GPA of 2.85 or higher in the last 60 semester units of coursework taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.
3. University master's degree policy requires students to take the Writing Proficiency Examination (WPE) during the first semester of residence. Students who have met this requirement during the baccalaureate degree program at CSULB or at another CSU campus are exempt.

- To qualify for University admission in conditionally classified or classified graduate standing, a student must be accepted into a graduate degree program on a conditional basis or as clear conditional status.

NOTE: Prior to admission to the master's program, students may take up to, but no more than, 9 units of approved coursework which may apply to the master's program. There is no minimum number of units required for admission to the program.

In accordance with University policy of "Graduate Transfer Units by Extension", up to 6 units of approved extension/continuing education or transfer credit may be used on a graduate student's program. At the option of the college/school or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/continuing education credit if taken at CSULB or at another CSU campus.

Students must contact the advisor of Curriculum and Instruction, Early Childhood Education, Reading and Language Arts, or Middle Level Education Specialization once 6 units of course work has been completed to plan an official program.

Students interested in the Specialization in Reading Language Arts must contact the advisor of Graduate Reading in the Department of Teacher Education prior to enrolling in any classes.

Advancement to Candidacy Requirements

- All University requirements must be met;
- Transcripts showing posted degree and the last 60 semester units or 90 quarter units;
- Completion of all admission requirements for the Elementary Master's Program Option;
- A minimum 3.0 overall grade-point average and a 3.0 grade point average in all units undertaken for the program (at least 6 units) with no incomplete grades;
- Satisfactory completion of the Writing Proficiency Examination (WPE);
- Personal-Professional Attributes
Applicants are required to submit a typed essay of not less than three pages, double spaced. The essay shall address the following; how the program will help them make a contribution to the profession; experience in the profession; and any other information relevant to their personal/professional plans. In addition, students will complete a structured interview with the designated program advisor;
- An approved plan of study completed with the Curriculum and Instruction, Early Childhood Education, Reading and Language Arts, or Middle Level Education graduate advisor be on file in the Graduate Office;
- A student must be enrolled in regular session or in the summer session in which advancement to candidacy takes place. Please refer to the "Graduate Degrees and Other Post Baccalaureate Studies" section of the catalog for University advancement-to-candidacy requirements.

Option in Secondary Education (code EDSEMA01)

Requirements

A minimum of 30 units for Curriculum and Instruction Secondary Specialization and a minimum of 33 units for Reading and Language Arts Specialization is required with at least 21 units in the 500/600 level series at this University. In consultation with the advisor of Curriculum and Instruction or Reading and Language Arts or designated faculty, students will select a comprehensive exam track or thesis track.

Curriculum and Instruction Specialization (30-36 units)

Admission

In addition to applying to the university for graduate standing, candidates must submit a program-specific application. Applications are available in the College of Education Graduate Studies office.

Prerequisite

- A valid secondary education or single subject teaching credential, or by permission.
- Methods of Social Science Inquiry (6 units): EDP 400, 520
- Core (15 units): EDSE 500, 505, 530, 615, 625
- Concentration (9 units)

Candidates select an area of concentration, in consultation with the program advisor, tailored to their professional goals. A concentration must follow a pattern or theme; a disparate set of unrelated courses is not a concentration. Concentrations may follow one of the patterns listed below or may be uniquely devised by the candidate. A concentration must have the approval of the program advisor. Thesis candidates should shape their concentration around research methodology and content related to their thesis topic. Candidates must submit a written statement containing a coherent rationale for and description of the concentration sequence at the time of advancement to candidacy. Candidates are responsible for taking prerequisite courses if required.

- Educational Technology (e.g., ETEC 523, 551, 553, 623).
- Educational Foundations (e.g., EDP 573, 574, 575, 576).
- Advanced course work in the candidate's teaching discipline.
- Advanced course work toward a Supplementary Authorization.
- Advanced course work toward the Professional Clear Credential.
- Advanced course work toward CLAD certification.
- Advanced course work in middle level education.
- Research methods courses in preparation for the thesis (e.g., EDP 696, 595, 596; EDSE 533, 535).
- Educational leadership (e.g., EDSE 510, EDMS 693, ETEC 530).

Capstone Experience

Candidates select one of the following capstone experiences in consultation with the program advisor. Selection should be made at the time of advancement to candidacy in order to develop a program plan consistent with the selected capstone experience.

- Comprehensive Examination.
- Thesis. (Candidates take EDSE 698 for two semesters while writing the thesis, for a total of 6 units; candidates may need to take additional research methodology courses in order to prepare for thesis research and writing).

Reading and Language Arts Specialization (33-36 units)

Prerequisites

A valid secondary education or single subject teaching credential; CLAD certification is strongly recommended. ENGL 482 or approved equivalent (can be taken concurrently with program requirements); submit a program application, transcripts

showing posted degree and last 60 semester units or 90 quarter units; 2 letters of recommendation from educators, one of which is from a supervisor; and an autobiographical essay, and interview with program faculty.

Program Requirements

1. All of the following (27 units): EDSE 540, 544, 551, 554, 556, 558, 559, 651, and EDP 595/LING 595 (Please contact advisor prior to beginning coursework)
2. One advisor-approved elective (3 units)
3. One of the following chosen in consultation with the program advisor (3-6 units): EDSE 695 and Written Comprehensive Examination (3 units) or EDSE 698 Thesis (6 units)

Clear Conditional Admission

1. Completion of program prerequisites.
2. A GPA of 2.85 or higher in the last 60 semester units of coursework taken. Lower division and/or extension courses taken after obtaining the bachelor's degree are excluded from this calculation.
3. University master's degree policy requires students to take the Writing Proficiency Examination (WPE) during the first semester of residence. Students who have met this requirement during the baccalaureate degree program at CSULB or at another CSU campus are exempt.
4. To qualify for University admission in conditionally classified or classified graduate standing, a student must be accepted into a graduate degree program on a conditional basis or as clear conditional status.

Please Note:

Prior to admission to the master's program, students may take up to, but no more than, 9 units of coursework which may apply to the master's program. There is no minimum number of units required for admission to the program.

In accordance with University policy of "Graduate Transfer Units by Extension", up to 6 units of approved extension/continuing education or transfer credit may be used on a graduate student's program. At the option of the college/school or department offering a graduate degree requiring a total of 30 units, this limit may be raised to 9 units of extension/continuing education credit if taken at CSULB or at another CSU campus.

Students must contact the advisor of Curriculum and Instruction or Reading and Language Arts Specialization no later than completing 6 units to plan an official program.

Students interested in the Specialization in Reading Language Arts must contact the advisor of Graduate Reading in the Department of Teacher Education prior to enrolling in any classes.

Advancement to Candidacy Requirements

1. All University requirements must be met;
2. Transcripts showing posted degree and the last 60 semester units or 90 quarter units;
3. Completion of all admission requirements for the Secondary Master's Program Option;
4. A minimum 3.0 overall grade-point average and a 3.0 grade point average in all units undertaken for the program (at least 6 units) with no incomplete grades;
5. Satisfactory completion of the Writing Proficiency Examination (WPE);

6. Personal-Professional Attributes: Applicants are required to submit a typed essay of not less than three pages, double spaced. The essay shall address the following: how the program will help them make a contribution to the profession; experience in the profession; and any other information relevant to their personal/professional plans. In addition, students will complete a structured interview with the designated program faculty advisor;
7. An approved plan of study completed with the Curriculum and Instruction or Reading and Language Arts graduate advisor must be on file in the Graduate Office;
8. A student must be enrolled in regular session or the in summer session in which advancement to candidacy takes place. Please refer to the "Graduate Degrees and Other Post Baccalaureate Studies" section of the catalog for University advancement-to-candidacy requirements.

Elementary Education Courses (EDEL)

(Lower Division)

100. Introduction to Teaching and Learning in Diverse Contemporary Classrooms (1)

Prerequisite: Acceptance in the Integrated Teacher Education Program. This course will provide members of the Integrated Teacher Education Program (ITEP) with an introduction to teaching as a profession. The course will address the qualities of an effective teacher, components and purposes of an effective professional portfolio, and critical issues in diverse contemporary classrooms. In this course, students will initiate development of their ITEP Reflective Practitioner Workbook. Ten hours of field experience. Letter grade only (A-F).

200. Introduction to the Education Profession (3)

Prerequisite: Enrollment in the Integrated Teacher Education Program and completion of, or concurrent enrollment in, EDEL 100. Forty hours of field experience. This course provides an overview of the teaching profession for students enrolled in the Integrated Teacher Education Program. Students will be exposed to the philosophies of education, the history of education in America, the sociology of education, contemporary issues in education, and the role of education in American society. Letter grade only (A-F).

Upper Division

300. Democratic Teaching in a Digital Age (3)

Prerequisites: EDEL 100 and 200 (or their approved counterparts) and EDP 180. This course will examine the cultural, linguistic, and technological issues impacting diverse classrooms. Students will identify and apply effective teaching strategies such as differentiated instruction, multiple methods of assessment, integration of appropriate use of technology and equitable classroom management. Students' use of case study methodology to profile an elementary student with specific treatments of the cultural context and instructional issues addressed in the course. 25 hours of fieldwork are required. Letter grade only (A-F).

340. Subject Matter Overview for Multiple Subjects (3)

Prerequisites: Baccalaureate degree and CBEST passed. Overview of content from seven areas: History and Social Studies, Human Development, Literature and Language Studies, Math, Physical Education, Science, Visual and Performing Arts. Analysis and practice in short essay writing and test-taking strategies. Course may be repeated to a maximum of 6 units.

360. Mathematical Concepts of Numbers and Geometry (3)

Not open to students with credit in EDEL 361 or EDEL 362. Unifying concepts of mathematics for elementary teachers. Includes the development of concepts of number, number operations, number properties, problem solving, geometric configurations, constructions, relationships and applications with metric measures. Letter grade only (A-F).

Elementary Education Courses (EDEL)

379. Sociolinguistics and Schooling (3)

Prerequisites: LING 329 or equivalent. Study of language variation as it connects to standard language development in society and individuals. Analysis of key sociolinguistic concepts, such as: dialect, speech event, linguistic repertoire, language community, prescriptive and descriptive grammar. Analysis of verbal and written classroom language. Connection between variation and development in speaking, reading and writing. Traditional grading only. Same course as LING 379.

380. Teaching and Learning in a Democratic Society (3)

Corequisite: EDP 303. This course introduces the concepts and issues related to K-8 education in the context of a rapidly-changing, standards-based, technologically-infused environment. Students will develop personal knowledge and understanding of: (1) the competing purposes and values of schools in society, (2) the nature of teaching/learning and the teaching profession, (3) the impact of local, state, and federal government policies on the schools, and (4) contemporary educational issues within historical, social, philosophical, legal, and political contexts. A minimum of 45 hours of structured fieldwork in an approved elementary, self-contained classroom is required. This course is a prerequisite for admission to the Multiple Subject Credential Program. Letter grade only (A-F).

380A. Introduction to Elementary Education for Interns (1-3)

Prerequisite: Employed as teacher of record in a regular self-contained classroom in a participating school district. Not open to students with credit for EDEL 380. Curriculum, instruction, assessment, classroom management, and professionalism in elementary teaching. Explore concepts and issues related to United States (California) elementary education including historical, philosophical, and legal implications of teaching in a culturally diverse society; the roles and functions of educators; implications of child development and learning; and the principle of educational equity. This field-based course is offered in one-unit modules. Content is spiraled with emphasis on the immediate needs of beginning teachers with intern credentials. Course may be repeated to a maximum of 3 units. Letter grade only (A-F).

413. Developmentally Appropriate Teaching Practices (2)

Research-based theories and principles of human development, learning, and motivation; educating the "whole child"; developmental characteristics of the following age groups: 5-8 years, 9-11 years, and 12-14 years; developmentally appropriate teaching practices: subject-specific pedagogy in health and physical education; the child, the family, and the school; effects of family involvement on teaching, learning and academic achievement; effective communication with families; student health and safety; creating respectful, effective learning environments; using technology in the classroom (e.g., basic principles of operation, basic troubleshooting and Acceptable Use Policies). A minimum of ten hours of fieldwork in classrooms where at least 25% of the students are classified as English learners. Letter grade only (A-F).

*420. Teaching and Learning in the Kindergarten and Primary Grades (3)

Teaching and learning in the kindergarten and primary grades with an emphasis on experiential approaches, multi-task classroom management, and an integrated curriculum. Discussion of the nature of the learning process, motivation, the value of error, and the use of portfolios for documenting student growth. Practical suggestions for implementing current research findings in curricular areas along with meeting the diverse needs of children in the classroom. Analysis of kindergarten and primary grade programs. Ten (10) hours of field work required.

*421. History and Philosophy of Early Childhood Education (3)

Historical, philosophical and psychological foundations of early childhood education and their relationships to current trends. Overview of the field of early childhood education. Analysis of various programs. Ten (10) hours of fieldwork required.

*422. Curriculum for Young Children (3)

Theory and practice related to the education of preschool and kindergarten children. Emphasis on theoretical constructs of developmentally appropriate curriculum, child-initiated learning, emergent

curriculum, anti-bias approaches, and the value of play in the learning process. Discussion of methods of child study, ongoing authentic assessment, selection of materials, and reflective practice. Ten hours of field work required.

429. 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 to students currently enrolled in the Liberal Studies program. Same course as LING 429, FCS 409, and EDP 428.

*430. Social and Cultural Diversity in Educational Settings (3)

Experiential opportunity to examine personal attitudes toward distinct groups of persons, to develop multicultural competencies, and examine racism. Study of cultural, historical, social, and psychological factors that promote equal human worth. Same course as ED P 432.

431. Cultural and Linguistic Diversity in Schools (3)

This course surveys the multiple forms of diversity present in schools, including issues surrounding culture ethnicity, race, linguistics, faith, special needs, gender, sexual orientation, and socio-economic status. Emphasis is on multicultural education, language minority education, and the promotion of learning for all students. The course addresses concepts of culture, educational equity, social justice, anti-bias and anti-racist curriculum, stereotyping, and cultural and linguistic contact. An overview is provided of the history, policy and practices regarding cultural and linguistic minorities in the United States and the impact on education. Special focus is placed on educational initiatives to address the rich ethnic diversity of California schools. Models of English language development and bilingual education are examined. Letter grade only (A-F). Same course as EDP 431 and LING 431.

439. SDAIE: Specially Designed Academic Instruction in English (3)

Theories of second language acquisition and practical application: methods of teaching content to English language learners, reading and writing strategies, and curriculum development with application to K-12. Letter grade only (A-F). Same course as ED P 439 and EDSE 439.

*442. Teaching and Learning Language Arts, K-8 (RICA) (3)

Prerequisite: Admission to the Multiple Subject Credential Program. Content, methods, and assessment for teaching language arts to all students, including English learners, speakers of non-mainstream English, and students with special needs in culturally diverse, literature- and technology-based classrooms: first and second language acquisition and English language development, relationships among reading, writing, and oral language, spelling instruction, and structure of the English language. Completion of CA TPA Task 2 required as partial fulfillment of the course. Minimum ten hours of fieldwork in elementary classrooms with at least 25% of students English Learners. Letter grade only (A-F).

451B. Assessment of Literacy with Bilingual Students (3)

Prerequisites: Speaking and reading competence in Spanish; consent of the instructor. Examination and evaluation of measures, strategies and materials used in the assessment of literacy development in English and Spanish with bilingual students in the U.S., with emphasis on the issues specific to the assessment, program placement, and instruction of English learners in dual language settings. EDEL 451B requires 10 hours of fieldwork utilizing assessments. EDEL 551B requires a 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).

*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, including English language learners, speakers of non-mainstream English, and students with special needs, in culturally diverse, literature based classrooms: phonemic awareness, phonics, vo-

cabulary development, comprehension, diagnosis, and the role of independent reading for proficient and delayed readers, the use of technology in literacy development. Minimum ten hours of fieldwork in elementary classrooms with at least 25% of students classified as English learners. Letter grade only (A-F).

***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 instructional methodology for teaching reading in two languages and transfer of literacy skills from first to second language. Traditions in teaching reading in Spanish and English as primary languages and English as a second language. Relationships among: emergent literacy, phonics- and syllabically-based approaches, primary language literacy development, literature-based programs, reading across the curriculum, and other paradigms of literacy. Examination of teacher beliefs, assumptions, theories, instructional practices, assessment and evaluation of literacy development among language minority children; materials selection and microcomputers in reading instruction. Minimum of ten hours of field experience required in classrooms where a non-English primary language is used for instruction. Course is three units except in Track Four - Multiple Subject Teaching Internship Program (TIP) - CLAD/BCLAD, when it is one unit. Letter grade only (A-F).

452C. Biliteracy: Teaching English and Chinese K-8 (3)

Prerequisites: Admission to the Multiple Subject Credential Program or permission of instructor. Course Description: Content, methods, and assessment for teaching literacy in English and Chinese bilingual setting: comprehension, phonics, vocabulary and other decoding skills, and writing and related encoding skills including spelling, grammar, handwriting, etc. (in English and Chinese, where applicable). Ten hours of fieldwork in elementary bilingual and sheltered English/Chinese classroom. Course lectures, activities and assignments will be in English and Chinese. Letter grade only (A-F).

453A. Developing Language and Literacy (2)

Prerequisites: Admission to the Integrated Teacher Education Program; concurrent enrollment in LING 329 or permission of instructor. Theory, research, and practice of teaching reading/language arts to all students, including English language learners, speakers of non-mainstream English, and students with special needs; development of children's first and second language; print concepts; letter recognition; phonological awareness and other linguistic processes related to reading; phonics and other word identification strategies; spelling and writing development; vocabulary; and ongoing assessment. Minimum ten hours of directed fieldwork in elementary classrooms with at least 25% of students classified as LEP. Letter grade only (A-F). Course is not repeatable.

453B. Teaching Reading and Language Arts K-8 (2)

Prerequisites: Admission to the Integrated Teacher Education Program or consent of the instructor; EDEL 453A. Concurrent enrollment in ENGL 481 or consent of the instructor. Current models of teaching reading/language arts to all students, including English language learners, speakers of non-mainstream English, students with special needs, proficient and delayed readers and writers; vocabulary, comprehension, and developing independent reading; spelling instruction and writing; text structure; content area literacy; study skills; ongoing assessment. Lesson and unit design using literature, literary response and analysis, instructional resources, and technology in the K-8 classroom. Minimum ten hours of directed fieldwork in elementary classrooms with at least 25% of students classified as LEP. Letter grade only (A-F).

453C. Problems in Literacy Development: Diagnosis and Instruction (1)

Prerequisites: Admission to the Integrated Teacher Education Program or consent of the instructor; EDEL 453A, B; concurrent enrollment in EDEL/C/LA 400. Teaching children with delayed literacy development; planning, organizing, and managing reading and writing instruction based on assessment, diagnosis, and evaluation of individual student needs. Includes ten hours of directed fieldwork and development of case study. Letter grade only (A-F).

***455. Teaching and Learning in the Culturally and Linguistically Diverse Middle School (3)**

Prerequisite: Admission to the MSCP Middle Level Emphasis Program, Middle Level Education master's degree program, or consent of the instructor. Course focuses on teaching in linguistically and culturally diverse middle schools (grades 6-8). Topics include history, philosophy, foundations of middle school education, middle school reform, the young adolescent, middle school curriculum, learning theories in practice, assessment, interdisciplinary teaching, team dynamics, classroom management and organization, the advisor/advisory role of teachers in the middle school, theories and models of second language acquisition including SDAIE, and technology. Letter grade only (A-F). Same course as EDMS 455.

458. Newspaper in Education (1-3)

Use of the daily newspaper as an instructional tool in the classroom. Newspaper articles, features and editorials as a means of providing current content and bases for improvement of reading skills, interests, critical thinking and problem-solving. Understanding mass media. Same course as EDSE 458.

***462. Teaching and Learning Mathematics, K-8 (3)**

Prerequisites: Admission to the Multiple Subject Credential Program. Learning theories, research, and instructional practices of teaching mathematics to all students, including English learners, speakers of non-mainstream English, and students with special needs in culturally and linguistically diverse classrooms. Emphasis on specially designed academic instruction in English for mathematics, characteristics of effective, equitable mathematics programs, multicultural mathematics materials, and alternatives to traditional assessment. A minimum of ten hours of fieldwork assignments in a classroom where at least 25% of students are classified as English learners. Letter grade only (A-F).

471. Teaching Social Studies in Diverse Classrooms (2)

Prerequisites: Admission to Methods Phase of the Integrated Teacher Education Program (ITEP). This course is a co-requisite with C/LA 471 and EDEL 473. Theory, research, content, and standards-based teaching for diverse students. Emphasis on integrating curriculum, inquiry learning, social participation and ethics/values in a democratic society with access to the core curriculum for all students. A minimum of ten hours of fieldwork in public school classrooms with at least 25% of the students classified as ELL/LEP. Letter grade only (A-F).

***472. Teaching and Learning History-Social Science, K-8 (3)**

Prerequisites: Admission to the Multiple Subjects Credential Program. Theory, research, content, and standards-based history-social science teaching for diverse classrooms. Emphasis on integrating curriculum, inquiry learning, social participation and ethics/values in a democratic society with access to the core curriculum for all students. A minimum of ten hours of fieldwork in public school classrooms with at least 25% of the students classified as English learners. Letter grade only (A-F).

473. Content Area Teaching in Diverse Classrooms (1)

- A. ITEP
- B. Spanish
- C. Chinese
- D. Vietnamese
- E. Cambodian (Khmer)
- F. Korean

Prerequisite: Admission to any Multiple Subject Program pathway. Pre- or co-requisite: EDEL 452, 453A & B, 462, 472 or equivalent. Supplement to methods courses in CLAD/BCLAD programs. Theory, research and practice for teaching all content areas in multilingual and multicultural contexts. Specific vocabulary, bilingual and sheltered classroom discourse for bilingual education, pre-view/review, specially-designed academic instruction in English (SDAIE), sheltered instruction and English language development. Presentation of thematic, multi-disciplinary lessons in social science, mathematics, natural science, language arts and other subjects, specifically for English learners in culturally diverse settings. Supplement to methods courses in specific areas. Letter grade only (A-F). Course may be repeated to a maximum of 2 units with different topics.

Elementary Education Courses (EDEL)

*475. Teaching and Learning Science, K-8 (3)

Prerequisite: Admission to the Multiple Subject Credential Program. Objectives, strategies, materials and methods for teaching elementary school science. Development of sequenced lessons, integration across content areas, integrating technological tools; understanding of how children learn science, the development of inquiry- and experiential-based units which address the needs of all learners along with specially designed academic instruction for English learners and children with special needs. 60 contact hours, however the actual contact will vary when the course is offered with an on-line distance component (see class schedule foot note). Completion of TPA Task 3 is partial fulfillment of this course. A minimum of ten hours of fieldwork in classrooms where at least 25% of the students are classified as English learners, or concurrent enrollment in EDEL 482. Letter grade only (A-F). Course fee required.

482. 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. Integrated student teaching assignment for one semester in a public school in grades K-8 with assignments at two of the following levels: K-2, 3-5, 6-8. Emphasis on teaching experiences in diverse, mainstreamed classrooms with English Learners including students with disabilities and those identified as gifted. Weekly seminar. Credit/No Credit grading only with an equivalent grade of "A" or "B" required for credit including passage of TPA Task 4. Course is repeatable for a maximum of 16 units.

482B. Student Teaching in Bilingual Classrooms (8)

Prerequisite: Admission to Multiple Subject Credential BCLAD Student Teaching. All day teaching assignment for one semester in a public school in grades K-6 with assignments at the primary and intermediate level, or one semester of teaching in a designated bilingual classroom (classroom must be within the supervision radius of CSULB). Emphasis on teaching experiences with children of limited English proficiency and on primary language instruction. Weekly seminar. Credit/No Credit grading only, with an equivalent grade of "A" or "B" required for credit. Course is repeatable for a maximum of 16 units in the same semester.

482C. Student Teaching in Bilingual Classrooms (8)

Prerequisite: Admission to Multiple Subject Credential BCLAD Student Teaching. All day teaching assignment for one semester in a public school in grades K-6 in a designated bilingual classroom under an emergency credential (classroom must be within the supervision radius of CSULB), with assignments at the primary and intermediate levels. Emphasis on teaching experiences with children of limited-English proficiency and on primary language instruction. Weekly seminar. Credit/No Credit grading only, with an equivalent grade of "A" or "B" required for credit. Course is repeatable for a maximum of 16 units in the same semester.

482D. Student Teaching in Culturally and Linguistically Diverse Classrooms (6)

Prerequisites: Admission to Multiple Subject Credential CLAD Student Teaching. Integrated student teaching assignment for one semester in a public school in grades K-6 with assignments at the primary and intermediate level. Emphasis on teaching experiences with children of limited English proficiency. Weekly seminar. Credit/No Credit grading only, with an equivalent grade of "A" or "B" required for credit. Course is repeatable for a maximum of 12 units.

*490. Special Topics in Elementary Education (1-3)

Topics of current interest in elementary education selected for intensive study. May be repeated under different topics but only six units may be applied toward advanced degrees. Topics will be 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 for credit to a maximum of six units with no more than three units applicable to credential or major requirement.

Graduate Level

500 Studies in Curriculum and Instruction (3)

Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor. This course must be taken during the first or second semester in the Master's Program. Provides an introduction to graduate study in curriculum and instruction, including overview of curriculum and instruction as a field of inquiry; critically reading and conducting educational research; using reflective strategies for analysis and improvement of professional practice. Letter grade only (A-F). Same course as EDSE 500.

500A. Reflective Processes For Beginning Teachers (3)

Prerequisite: Currently teaching and hold credential or consent of instructor. To enhance effectiveness and success in beginning years of teaching (less than four years). Emphasis on acquisition and application of reflective processes. Acquire skills to identify and resolve personal and professional problems; delve into the current literature and research; engage in group processes; create, identify and evaluate alternative solutions and apply these to your own problems and situations. Same course as EDSE 500A.

501. Enhancing Teacher Effectiveness: Strategies for Mentoring and Leadership (3)

Prerequisite: A minimum of three (3) years teaching experience. To enable experienced teachers to acquire skills and understandings to improve their own instructional and professional effectiveness, become mentor teachers, and develop strategies for teacher leadership and supervision. Enhance ability to analyze and improve instruction and guide other teachers in using these skills. Conduct applied research on these topics. Same course as EDSE 501.

505. History of Education in the United States (3)

Prerequisites: Admission to an approved masters program or consent of the instructor. This course must be taken by Curriculum and Instruction students during the first or second semester of the Master's program. 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). Same course as EDSE 505.

510. Supervision and Coaching in Educational Settings (3)

Utilizes historical, empirical, and theoretical frameworks to look at supervisory and coaching practice in educational settings. The course covers such topics as the development of the field of supervision, historical approaches to supervision, traditional and current models of supervision, supervisory behaviors and practices, and various supervisory and coaching roles in preservice student teaching, induction phase teaching, and inservice teaching. Will be of professional relevance to cooperating teachers, university supervisors, peer coaches, school administrators and others in coaching or supervisory roles. Participants should exit the course with a capacity to engage in context and role appropriate supervisory and coaching practice. Letter grade only (A-F). Same course as EDSE 510.

522. Parent Education and Involvement in Educational Environments (3)

Analysis of trends, issues, programs and practices pertaining to parent education and involvement in educational settings. Emphasis on early childhood education in multicultural settings. Discussion of effective two-way communication between school and home, working with volunteers, involving parents as decision makers in school policies, and coordinating community support services for children and families. Analysis of federal and state programs which mandate parent involvement, parent education programs, and working with culturally diverse families. Ten (10) hours of field work required.

523. Leadership, Advocacy and Supervision of Early Childhood Programs (3)

Discussion of types of ECE programs, program development and implementation, different management approaches and leadership styles. Analysis of position statements and state documents pertaining to ECE programs. Discussion of promoting professionalism, the change process, and advocacy for young children and their families. Ten hours of field work required.

526. Advanced Study of Infant and Toddler Programs (3)
Prerequisites: ED P 301, EDEL 422 or consent of instructor. Curriculum and teaching of infant and toddler programs. Analysis and application of current research on infant and toddler development to group learning settings. Ten (10) hours of fieldwork required.

530. Cross-cultural Education: US and Global Perspectives (3)
Prerequisite: Admission to an approved Master's program or consent of the instructor. Study to enhance teachers' cross-cultural competence through critical analyses of issues of cultural diversity, educational equity, and global interdependence. Students will investigate the current research literature in the field, reflectively 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). Same course as EDSE 530.

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 with the consent of the instructor. Literacy as a social product from a sociocultural approach. The nature of literacy in historical perspective and with sociocultural applications. Course focuses on the micro social theoretical consideration of dual language development in family and community contexts. Examines the intricate relationships between language and text from early utterances to adult literacy processes. Students will understand the contexts and conditions that influence literacy development for first and second language learners. Ten hours fieldwork in schools or communities to connect the theoretical underpinnings to curricular planning. 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. This course must be taken during the first or second semester in the Master's Program. Provides an introduction to graduate study in curriculum and instruction, including overview of curriculum and instruction as a field of inquiry; critically reading and conducting educational research; using reflective strategies for analysis and improvement of professional practice. Letter grade only (A-F).

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. Emphasizes advanced study of literacy research, theory, and practice. Includes research survey of issues of first and second language acquisition and development, language structure, and curriculum trends in reading and writing pedagogy. Letter grade only (A-F). Same course as EDSE 540.

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, with a focus on primary language and second language teaching, learning and critical literacy. Candidates will analyze a variety of US and Mexican program sites to conduct research and create curricular programs. (Offered in both the US and Mexico. [new course; BCLAD Domain 4]; 10 hours fieldwork) Letter grade only (A-F). Same as EDSE 541.

542. Situated Learning in Bilingual Contexts (3)
Prerequisites: A valid California CLAD teaching credential or equivalent. Hands-on experiences in Spanish language and bilingual-bicultural settings in Mexican public, private and indigenous schools. Interaction with Mexican educators, students and families. Critical analysis of a wide variety of educational models with application to Latinos in US schools. (Offered in Mexico; [new course; BCLAD Domains 4, 5, 6] 15 hours of field experience. Letter grade only (A-F). Same course as EDSE 542.

543. Integration of Technology in Reading/Language Arts (3)
Prerequisites: EDP 443 or ETEC 444 or equivalent; or a course approved by CTC, or a course approved by CCTC to meet the Level I technology requirement or approval of the instructor. Exploration of the impact of technology on reading and language arts; investigation and evaluation of software and media programs for reading/language arts. Includes current issues in technology and change strategies for staff development and integration of technology in the curriculum. Letter grade only (A-F). Same course as EDSE 543.

544. Foundations of Literacy Research (3)
Prerequisite: California Reading Certificate or consent of instructor. Introduction to critical analysis of literacy research, with emphasis on classic and contemporary studies. Includes experimental designs, descriptive studies, case studies, correlational research, ethnographies, and the teacher-as researcher. Same course as EDSE 544.

545. Seminar: Current Issues, Trends, and Applied Theory in Reading/Language Arts Pedagogy (3)
Prerequisite: EDEL 452 or EDSE 457. Credentialed teaching experience or consent of the instructor. Current trends in the teaching of reading in K-12. Emphasis on applied theory to support important trends such as Early Intervention and Literacy Programs. Issues of Language and Cultural Diversity, Adolescent Reading, Adult Literacy, Family Literacy issues. Letter grade only (A-F). Same course as EDSE 545.

551. Assessment and Instruction in Reading and Writing (3)
Prerequisites: Admission to Reading Certificate Program or consent of instructor. A comprehensive study of reading and writing assessment and instruction. Examination and evaluation of procedures, strategies and materials effective in designing appropriate reading and writing instruction with an emphasis on early detection and correction of reading difficulties. Fieldwork required. Same course as EDSE 551. Letter grade only (A-F).

551B. Assessment of Literacy with Bilingual Students (3)
Prerequisites: Speaking and reading competence in Spanish; consent of the instructor. Examination and evaluation of measures, strategies and materials used in the assessment of literacy development in English and Spanish with bilingual students in the U.S., with emphasis on the issues specific to the assessment, program placement, and instruction of English learners in dual language settings. EDEL 451B requires 10 hours of fieldwork utilizing assessments. EDEL 551B requires a 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). Same course as EDSE 554.

556. Theoretical Models and Processes of Reading (3)
Prerequisite: California Reading Certificate or consent of instructor. Exploration and analysis of current and historic theoretical models of the reading process, and examination of their influence on curriculum and instructional issues in reading and language arts. Letter grade only (A-F). Same course as EDSE 556.

558. Language Study for Reading Teachers (3)
Prerequisites: EDEL 540 and admission to the Reading Certificate program or consent of instructor. The relationships among phonology, morphology, semantics, syntax, and pragmatics, and the teaching of reading. The focus is on developing phonemic awareness, phonics, decoding strategies, vocabulary, spelling, grammar skills, and comprehension in emergent and developing readers, including English language learners. Includes evaluation of instructional materials. Letter grade only (A-F). Same course as EDSE 558.

559. Practicum in Teaching Reading/Language Arts (3)
Prerequisites: EDEL 551 and admission to the Reading Certificate program or consent of instructor. Includes methods and intervention approaches for meeting the needs of struggling readers at both early and intermediate levels of reading acquisition, and the tutoring or small-group instruction of these students. Classroom field experience is required. Letter grade only (A-F). Same course as EDSE 559.

560. Advanced Study in Mathematics Education (3)
Prerequisites: EDEL 500 and admission to an approved masters program or consent of the instructor. Advanced study and research in elementary school mathematics with an emphasis on content, methods and materials. Includes individual research. This course is designed to provide an exploration and review of recent literature and research focusing on the challenges of teaching mathematics in the elementary school. Students are expected to participate in an investigation and appraisal of contemporary mathematical content, effective methods of teaching, appropriate materials, assessment, and enrichment facets of the elementary school mathematics program. Letter grade only (A-F).

Elementary Education Courses (EDEL)

570. Advanced Studies in Teaching History-Social Science (3)

Prerequisites: EDEL 472; EDP 400, EDP 520 or 696, or equivalent. Intensive study of selected topics related to teaching and learning with an emphasis on teaching history-social science. The course will engage students in a systematic inquiry into their own practice as they conduct a teacher research project. Letter grade only (A-F).

572A. Multiple Subject Internship (1-8)

Prerequisite: Admission to Track Four - Multiple Subject Teacher Internship Program (TIP) - CLAD/BCLAD or eligible for an Intern Credential and admitted to the Multiple Subject Credential Program. TIP students must take a minimum of 12 units, typically three units in each of two semesters to a maximum of six units per year for two years. All other interns take a maximum of 16 units. Total number of units will be determined by specific program. Credit/No Credit grading only.

572B. Multiple Subject Internship (1-8)

Prerequisite: Admission to Track Four - Multiple Subject Teacher Internship Program (TIP) - CLAD/BCLAD or eligible for an Intern Credential and admitted to the Multiple Subject Credential Program. TIP students must take a minimum of 12 units, typically three units in each of two semesters to a maximum of six units per year for two years. All other interns take a maximum of 16 units. Total number of units will be determined by specific program. Credit/No Credit grading only.

572J. Multiple Subject Internship (1-8)

Prerequisite: Admission to Track Four - Multiple Subject Teacher Internship Program (TIP) - CLAD/BCLAD or eligible for an Intern Credential and admitted to the Multiple Subject Credential Program. TIP students must take a minimum of 12 units, typically three units in each of two semesters to a maximum of six units per year for two years. All other interns take a maximum of 16 units. Total number of units will be determined by specific program. Credit/No Credit grading only.

572K. Multiple Subject Internship (1-8)

Prerequisite: Admission to Track Four - Multiple Subject Teacher Internship Program (TIP) - CLAD/BCLAD or eligible for an Intern Credential and admitted to the Multiple Subject Credential Program. TIP students must take a minimum of 12 units, typically three units in each of two semesters to a maximum of six units per year for two years. All other interns take a maximum of 16 units. Total number of units will be determined by specific program. Credit/No Credit grading only.

615: Contemporary Issues in Elementary and Secondary Education (3)

Prerequisite: EDEL 500 and admission to an approved masters program or permission 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). Same course as EDSE 615.

621. Research Seminar in Early Childhood Education (3)

Prerequisites: ED P 400 and teaching experience. Discussion and analysis of research in the field of early childhood education. Emphasis on appropriate assessment of young children and qualitative research design. Ten (10) hours of field work required.

622. Seminar in Early Childhood Care and Education: International Perspectives (3)

Discussion of early childhood programs in various countries around the world. Analysis of social, political, and economic influences on policies related to the care and education of young children. Discussion of the role of international and national agencies providing support for child welfare and education.

625. Analysis of Curriculum, Instruction, and Assessment (3)

Prerequisites: EDEL 500, EDEL 505, EDP 400; and one of the following EDP 520, EDP 595, or EDP 696 or EDEL 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. Technological resources are evaluated for use in instructional planning. Letter grade only (A-F). Same course as EDSE 625.

651. Advanced Diagnosis and Intervention in Reading/Language Arts (3)

Prerequisites: EDEL 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). Same course as EDSE 651.

681. Advanced Field Experiences in Early Childhood (4)

Prerequisite: Approval by Early Childhood Education (ECE) area committee. Supervised field experiences required of candidates for the ECE specialist credential who do not have teaching experiences in (1) pre-school; and (2) kindergarten or primary grades; and (3) a multicultural setting. Applications should be made by October 1 for the spring semester, and by March 1 for the fall semester and summer session. May be repeated for a maximum of 8 units. Credit/No Credit grading only. A maximum of four (4) units only for credit toward a master's degree program.

682. Exit Assessment of Competencies in Early Childhood Education (4)

Prerequisite: Completion of all requirements for the Early Childhood Specialist Credential. During this advanced field work assignment, the candidate receives a final assessment of competencies demonstrated at the pre-school, kindergarten or primary levels. Applications should be made by October 1 for the spring semester, and by March 1 for the fall semester and summer session. Credit/No Credit grading only.

693. Developing Teacher Leadership in Middle Level Education (3)

Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or have the permission of the instructor. Contemporary research on effective schools identifies teacher empowerment as critical to school improvement and success. This course will involve administrators and teachers in developing middle level teacher leadership. Students will learn and practice collaborative and action research models. Letter grade only (A-F). Same course as EDAD 693 and EDMS 693.

695. Seminar in Teacher Education (3)

Prerequisites: Advancement to candidacy, approval of graduate director, and written application to Graduate Office. Application for enrollment must be made by March 1 for the fall semester and summer session, or by October 1 for spring semester. Successful completion of all required course work for the Master of Arts in Education, options in elementary or secondary education. Advanced studies in elementary and secondary education including reviews of the literature, and critique of educational research. Analysis of current trends, critical problems, and issues in education. For qualified candidates preparing to write the comprehensive examination. Letter grade only (A-F). May be repeated once with permission of instructor. Same course as EDSE 695.

695C. Seminar in Teacher Education for the Early Childhood Education Specialization (3)

Prerequisites/Course Description: Advancement to candidacy in the Early Childhood Education Graduate Program, approval of the Early Childhood Education Graduate Advisor, and written application to the College of Education Graduate Office. Application for enrollment must be made by March 1 for the fall semester, or by October 1 for the spring semester. Consideration of curriculum role of the school, and topics related to effectiveness and excellence in early childhood education. For qualified candidates preparing to participate in the comprehensive examination process. Letter grade only (A-F).

697. Directed Research (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-three units to a maximum of three units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made by Mar 1 for the fall semester and summer session or by Oct 1 for the spring semester.

698. Thesis (3,3)

Prerequisites: Advancement to candidacy, ED P 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 and summer session or October 1 for the spring semester.

Education Middle School Courses (EDMS)

*455. Teaching and Learning in the Culturally and Linguistically Diverse Middle School (3)

Prerequisite: Admission to the MSCP Middle Level Emphasis Program, Middle Level Education master's degree program, or consent of the instructor. Course focuses on teaching in linguistically and culturally diverse middle schools (grades 6-8). Topics include history, philosophy, foundations of middle school education, middle school reform, the young adolescent, middle school curriculum, learning theories in practice, assessment, interdisciplinary teaching, team dynamics, classroom management and organization, the advisor/advisory role of teachers in the middle school, theories and models of second language acquisition including SDAIE, and technology. Letter grade only (A-F). Same course as EDEL 455.

*456A. Teaching Language Arts/Social Science in the Middle School (3)

Prerequisite: Admission to the Middle Level Emphasis program, Middle Level Education master's degree program, or consent of the instructor. Focuses on content and methodology of teaching language arts and history-social science at the middle level including interdisciplinary teaching, reading in the content areas, and strategic reading. Includes an overview of elementary school content curricula in the two content areas. Curriculum development, standards and frameworks, content knowledge, SDAIE strategies, and appropriate middle school pedagogy are emphasized. A minimum of 10 hours of field work required. Letter grade only (A-F).

*456B. Teaching Science and Mathematics in the Middle School (3)

Prerequisite: Admission to the Middle Level Emphasis program, Middle Level Education master's degree program, or consent of the instructor. Focuses on content and methodology of teaching mathematics and science at the middle level. Includes an overview of elementary school content curricula in these content areas. Curriculum development, standards and frameworks, content knowledge, SDAIE strategies, and appropriate middle school pedagogy are emphasized. A minimum of 10 hours of fieldwork required. Letter grade only (A-F).

483A-B-C. Middle Level Student Teaching in Linguistically and Culturally Diverse Classrooms (4-4-4)

Prerequisites: Admission to MSCP Middle Level/CLAD Emphasis Student Teaching; completion of all requirements for advancement to student teaching. Students teaching represents the culmination of the MSCP Middle Level Emphasis/CLAD Credential Program. Sections A and B consists of ten (10) weeks, full-days, spent in an approved middle school with a limited English proficient student population of at least 26%. Section C consists of an additional five (5) weeks of student teaching to be completed in an elementary school classroom also with a limited English proficient student population of at least 26%. Students must enroll in all sections (A-B-C) simultaneously, equating to 12 units of student teaching. Weekly seminars are required. Credit/No Credit grading only ("A" or "B" level work required for credit.)

Graduate Level

582. Concepts, Structures, and Programs for Middle Level Schools (3)

Prerequisites: Middle level teaching experience, admission to an approved masters program, or consent of the instructor. Advanced exploration of the philosophical, historical, and societal foundations of middle level education. Study and evaluation of existing middle level programs, materials, curriculum, and future trends. Design of professional development for middle level teachers. Letter grade only (A-F).

584. Issues in Middle Level Education (3)

Prerequisites: Middle level teaching experience, admission to an approved masters program, or consent of the instructor. Intensive study of middle level education issues emphasizing research perspectives and factors that may influence the future direction of middle level education. Topics examined include: instructional strategies and assessment/evaluation methods and materials, the multiple aspects of human diversity in the middle level classroom, impact of current societal events, parental involvement, threats to students' health and safety, risk behaviors that affect the healthy development of young adolescents, and teacher professional development. Letter grade only (A-F).

599. Special Topics in Teacher Education. (1-3)

Study of a special topic in Teacher Education. See *Schedule of Classes* for specific topic. Students must be enrolled in a Masters or Advanced Credentials or Specialist Program. Letter grade only (A-F). Course may be repeated to a maximum of 6 units with different topics (depending on program requirements).

693. Developing Teacher Leadership in Middle Level Education (3)

Prerequisite: Students must be enrolled in either a Teacher Education Masters Program, or the Tier II Professional Administrative Services Credential Program, or have the permission of the instructor. Contemporary research on effective schools identifies teacher empowerment as critical to school improvement and success. This course will involve administrators and teachers in developing middle level teacher leadership. Students will learn and practice collaborative and action research models. Letter grade only (A-F). Same course as EDAD 693 and EDEL 693.

695. Project in Middle Level Education (3)

Prerequisites: Advancement to candidacy, ED P/LING 595, approval by the program coordinator, department chair, and associate dean, and written application to the Graduate Office. Application for enrollment must be made by October 1 for the fall semester and summer session, or by October 1 for the spring semester. Study and analysis in the field of middle level education. Development of culminating masters project, which can take any of the following forms: 1) utilize action-based research to examine a classroom- or school-based issue or problem related to middle level education to explore, analyze, or offer resolution to the problem; OR 2) develop a position paper, issue paper, or policy recommendation. Seminar and individual meetings. Letter grade only (A-F).

Secondary Education Courses (EDSE)

Lower Division

157. Critical Thinking and Analytical Reading (3)

Prerequisite: ENGL 100 or equivalent (may be taken concurrently). Critical thinking and advanced reading comprehension. Includes laboratory experience and access to resource materials.

Upper Division

339. Linguistics for Crosscultural Language and Academic Development in Secondary School Settings (3)

Principles of language structure, variation and usage for educators. Educational aspects of first and second language acquisition theories. Social and psychological influences on linguistic behavior in middle and high schools. Cultural and political issues affecting language, attitudes, maintenance and shift. Letter grade only (A-F). Same course as LING 339.

Secondary Education Courses (EDSE)

435. United States Secondary Schools: Intercultural Education (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. Provides students with foundational knowledge of education (historical, philosophical, sociological, political) grounded in contemporary society and schools. Key concepts include: socialization, culture, cultural contact, race, class, ethnicity, exceptionality and other aspects of identity and their impact on schooling. Approved CLAD Certificate course (Domain 3). Fifteen (15) hour fieldwork requirement. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

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. 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 (15) hour fieldwork requirement. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

439. SDAIE: Specially Designed Academic Instruction in English (3)

Theories of second language acquisition and practical application: methods of teaching content to English language learners, reading and writing strategies, and curriculum development with application to K-12. Letter grade only (A-F). Same course as EDEL 439 and ED P 439.

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 permission of the University Coordinator of the Single Subject Credential Program. Required course in the Single Subject Credential Program. Emphasis on assessment and instruction of individuals and groups; textbook selection and evaluation; vocabulary development; comprehension strategies; content area reading and study skills; writing instruction; application of decoding skills to new and technical vocabulary and spelling patterns; transfer of primary language reading skills into English language skills; English usage in a variety of formal and informal settings; and the special reading needs of less prepared learners, accelerated learners, and English language learners. Addresses issues of diversity and equity within the context of teaching reading and writing in content areas. Includes individual/tutorial instruction of an adolescent. Minimum fifteen (15) hours of field work required. Letter grade only (A-F). Course may be repeated up to a maximum of 6 units.

458. Newspaper in Education (1-3)

Use of the daily newspaper as an instructional tool in the classroom. Newspaper articles, features and editorials as a means of providing current content and bases for improvement of reading skills, interests, critical thinking and problem-solving. Understanding mass media. Same course as EDEL 458.

*490. Special Topics in Secondary Education (1-3)

Prerequisite: Consent of instructor. Topics of current interest in secondary education selected for intensive study. May be repeated under different topics for a maximum of six units. Topics will be announced in the *Schedule of Classes*.

*491. Special Topics in Teacher Education (3)

Prerequisite: Consent of instructor. Topics of current interest in teacher education selected for intensive study. A student may enroll for three units to a maximum of six units for certificate and degree purposes, subject to suitable change in course content. Topics will be announced in the *Schedule of Classes*. (Lecture 2 hours, laboratory 2 hours.)

*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 for credit to a maximum of six units, with no more than three units applicable to credential or major requirement.

Graduate Level

500. Studies in Curriculum & Instruction (3)

Prerequisite: Admission to the Curriculum and Instruction Master's Program or consent of instructor. This course must be taken during the first or second semester in the Master's Program. Provides an introduction to graduate study in curriculum and instruction, including overview of curriculum and instruction as a field of inquiry; critically reading and conducting educational research; using reflective strategies for analysis and improvement of professional practice. Letter grade only (A-F). Same course as EDEL 500.

500A. Reflective Processes For Beginning Teachers (3)

Prerequisite: Currently teaching and hold credential or consent of instructor. To enhance effectiveness and success in beginning years of teaching (less than four years). Emphasis on acquisition and application of reflective processes. Acquire skills to identify and resolve personal and professional problems; delve into the current literature and research; engage in group processes; create, identify and evaluate alternative solutions and apply these to your own problems and situations. Same course as EDEL 500A.

501. Enhancing Teacher Effectiveness: Strategies for Mentoring and Leadership (3)

Prerequisite: A minimum of three (3) years teaching experience. To enable experienced teachers to acquire skills and understandings to improve their own instructional and professional effectiveness, become mentor teachers, and develop strategies for teacher leadership and supervision. Enhance ability to analyze and improve instruction and guide other teachers in using these skills. Conduct applied research on these topics. Same course as EDEL 501.

505. History of Education in the United States. (3)

Prerequisites: Admission to an approved masters program or consent of the instructor. This course must be taken by Curriculum and Instruction students during the first or second semester of the Master's program. 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). Same course as EDEL 505.

510. Supervision and Coaching in Educational Settings (3)

Utilizes historical, empirical, and theoretical frameworks to look at supervisory and coaching practice in educational settings. The course covers such topics as the development of the field of supervision, historical approaches to supervision, traditional and current models of supervision, supervisory behaviors and practices, and various supervisory and coaching roles in preservice student teaching, induction phase teaching, and inservice teaching. Will be of professional relevance to cooperating teachers, university supervisors, peer coaches, school administrators and others in coaching or supervisory roles. Participants should exit the course with a capacity to engage in context and role appropriate supervisory and coaching practice. Letter grade only (A-F). Same course as EDEL 510.

530. Cross-cultural Education: US and Global Perspectives (3)

Prerequisite: Admission to an approved Master's program or consent of the instructor. Study to enhance teachers' cross-cultural competence through critical analyses of issues of cultural diversity, educational equity, and global interdependence. Students will investigate the current research literature in the field, reflectively 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). Same course as EDEL 530.

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. Emphasizes advanced study of literacy

research, theory, and practice. Includes research survey of issues of first and second language acquisition and development, language structure, and curriculum trends in reading and writing pedagogy. Letter grade only (A-F). Same course as EDEL 540.

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, with a focus on primary language and second language teaching, learning and critical literacy. Candidates will analyze a variety of US and Mexican program sites to conduct research and create curricular programs. (Offered in both the US and Mexico. [new course; BCLAD Domain 4]; 10 hours fieldwork) Letter grade only (A-F). Same as EDEL 541.

542. Situated Learning in Bilingual Contexts (3)

Prerequisites: A valid California CLAD teaching credential or equivalent. Hands-on experiences in Spanish language and bilingual-bicultural settings in Mexican public, private and indigenous schools. Interaction with Mexican educators, students and families. Critical analysis of a wide variety of educational models with application to Latinos in US schools. (Offered in Mexico; [new course; BCLAD Domains 4, 5, 6] 15 hours of field experience). Letter grade only (A-F). Same course as EDEL 542.

543. Integration of Technology in Reading/Language Arts (3)

Prerequisites: EDP 443 or ETEC 444 or equiv. Course approved by CTC that meets credential requirement, or approval of instructor. Exploration of the impact of technology on reading and language arts; investigation and evaluation of software and media programs for reading/language arts. Includes current issues in technology and change strategies for staff development and integration of technology in the curriculum. Letter grade only (A-F). Same course as EDEL 543.

544. Foundations of Literacy Research (3)

Prerequisite: California Reading Certificate or consent of instructor. Introduction to critical analysis of literacy research, with emphasis on classic and contemporary studies. Includes experimental designs, descriptive studies, case studies, correlational research, ethnographies, and the teacher-as researcher. Same course as EDEL 544.

545. Issues/Trends in Reading Pedagogy (3)

Prerequisites: EDEL 452 or EDSE 457. Credentialed teaching experience or consent of the instructor. Current trends in the teaching of reading in K-12. Emphasis on applied theory to support important trends such as Early Intervention and Literacy Programs. Issues of Language and Cultural Diversity, Adolescent Reading, Adult Literacy, Family Literacy issues. Letter grade only (A-F). Same course as EDEL 545.

551. Assessment and Instruction in Reading and Writing

Prerequisite: Admission to Reading Certificate Program or consent of instructor. A comprehensive study of reading and writing assessment and instruction. Examination and evaluation of procedures, strategies and materials effective in designing appropriate reading and writing instruction with an emphasis on early detection and correction of reading difficulties. Fieldwork required. Letter grade only (A-F). Same course as EDEL 551.

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). Same course as EDEL 554.

556. Theoretical Models and Processes of Reading (3)

Prerequisite: California Reading Certificate or consent of instructor. Exploration and analysis of current and historic theoretical models of the reading process, and examination of their influence on curriculum and instructional issues in reading and language arts. Letter grade only (A-F). Same course as EDEL 556.

558. Language Study for Reading Teachers (3)

Prerequisites: EDSE 540 and admission to the Reading Certificate program or consent of instructor. The relationships among phonology, morphology, semantics, syntax, pragmatics, and the teaching of

reading. The focus is on developing phonemic awareness, phonics, decoding strategies, vocabulary, spelling, grammar skills, and comprehension in emergent and developing readers, including English language learners. Includes evaluation of instructional materials. Letter grade only (A-F). Same course as EDEL 558.

559. Practicum in Teaching Reading/Language Arts (3)

Prerequisites: EDSE 551 and admission to the Reading Certificate program or consent of instructor. Includes methods and intervention approaches for meeting the needs of struggling readers at both early and intermediate levels of reading acquisition, and the tutoring or small-group instruction of these students. Classroom field experience is required. Letter grade only (A-F). Same course as EDEL 559.

599. Special Topics in Teacher Education (1-3)

Study of a special topic in Teacher Education. See *Schedule of Classes* for specific topic. Students must be enrolled in a Masters or Advanced Credentials or Specialist Program. Letter grade only (A-F). Course may be repeated to a maximum of 6 units with different topics (depending on program requirements).

615. Contemporary Issues in Elementary and Secondary Education (3)

Prerequisite: EDEL 500 and admission to an approved masters program or permission 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). Same course as EDEL 615.

625. Analysis of Curriculum, Instruction, and Assessment (3)

Prerequisites: EDEL 500, EDEL 505, EDP 400; and one of the following EDP 520, EDP 595, or EDP 696 or EDEL 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. Technological resources are evaluated for use in instructional planning. Letter grade only (A-F). Same course as EDEL 625

651. Advanced Diagnosis and Intervention in Reading/Language Arts (3)

Prerequisites: EDEL 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). Same course as EDEL 651.

695. Seminar in Teacher Education (3)

Prerequisites: Advancement to candidacy, approval of graduate director, and written application to Graduate Office. Application for enrollment must be made by March 1 for the fall semester and summer session, or by October 1 for spring semester. Successful completion of all required course work for the Master of Arts in Education, options in elementary or secondary education. Advanced studies in elementary and secondary education including reviews of the literature, and critique of educational research. Analysis of current trends, critical problems, and issues in education. For qualified candidates preparing to write the comprehensive examination. Letter grade only (A-F). May be repeated once with permission of instructor. Same course as EDEL 695.

697. Directed Research (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-three units to a maximum of three units for certificate and degree purposes, subject to suitable change in course content. Application for enrollment must be made by March 1 for the fall semester and summer session or by October 1 for the spring semester.

698. Thesis (3,3)

Prerequisites: Advancement to candidacy, ED P 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 and summer session or October 1 for the spring semester.

THEATRE ARTS

College of the Arts

Department Chair

Howard Burman

Department Office

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David Jacques

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Assistant Professor

Hugh O'Gorman

Administrative Coordinator

Michelle Weber

Undergraduate/Graduate Advisor

Barbara Matthews

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The Department of Theatre Arts offers three basic programs leading to the bachelor of arts degree with opportunities for options in Performance (acting), Technical Theatre (scenery/costume/lighting design), and General Theatre. This flexibility of program planning in Theatre Arts has been organized to serve student needs in three principal areas: (1) Enrichment of the student's liberal arts background through the development of appreciations and insights derived from theatre arts courses taken as general education electives. (2) Development of interests and skills that will offer the student life-long satisfactions as an avocational outlet. (3) Preparation for theatre professions in community theatre, recreational theatre, educational theatre, and professional theatre. These courses cover the full range of world drama from both the viewpoint of theatre and dramatic literature.

The W. David Sievers Memorial Scholarship in acting, named for the first faculty member of the theatre program, is awarded annually to new students who exhibit potential in the field of performance. Award consists of a modest sum and is determined through competitive 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.

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.

All majors are required to participate in the departmental production program. Furthermore, majors enrolled in any acting course are expected to audition and participate in departmental productions in that semester. The student is expected to accept any role in which he/she is cast. Majors are also expected to seek approval from their advisor before making any commitment to a theatre program which lies outside of the departmental academic atmosphere.

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 and the International Theatre Institute of the United States.

Bachelor of Arts in Theatre Arts

The General Option in 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 in Directing.

Requirements

The Theatre Arts core is required for all majors regardless of option.

THEA 10 is required each semester of enrollment. These units are not included in the 120 for graduation.

Lower Division: THEA 10, 101, 114A, 142, 144, 146, 148

Upper Division: THEA 321, 322, 324I, 425I, 426, 452, 476

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.

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, make up, stage-craft and lighting to be satisfactorily completed during the semester following completion of the related course. 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 (in the case of the performance option) or interview (in the case of all other options). 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.)

General Option (code THEABA01) (124 units)

Lower Division Core: THEA 10, 101, 114A, 142, 144, 146, 148

Upper Division Core: THEA 321, 322, 324I, 425I, 426, 452, 476

Production: Select 3 units from the following: THEA 310B, 340B, 410A, 410B, 440A, 440B.

Performance and Technical/Design: Select from categories A & B 9 units from one category and 9 units from the other for a total of 18 units:

Category A. Performance: THEA 112, 114B, 214, 262, 312, 316, 318, 364, 374, 375, 380, 413, 414, 415;

Category B. Technical/Design: THEA 271, 341, 342, 352, 433, 441, 442, 447, 448, 449, 451, 490, 498.

Option in Performance: Acting/Directing (code THEABA02) (120 units)

Lower Division Core: THEA 10, 101, 114A, 142, 146, 148

Upper Division Core: THEA 321, 322, 324I, 425I, 426, 452, 476

THEA 112, 114B, 144, 214, 262, and 9 units from THEA 271, 312, 316, 318, 374, 375, 380, 413, 414, 498.

Option in Technical Theatre: Scenery/Costume/Lighting Design (code THEABA03) (120 units)

Lower Division Core: THEA 10, 101, 114A, 142, 146, 148

Upper Division Core: THEA 321, 322, 324I, 425I, 426, 452, 476

THEA 271, 352, 433, 451, and select 12 units from the following: THEA 144, 340B, 341, 342, 440A, 440B, 441, 442, 446, 447, 448, 449, 472, 490, 498.

Master of Arts in Theatre Arts (code THEAMA01)

Prerequisites

1. A bachelor's degree with a major in Theatre Arts; or
2. A bachelor's degree with 24 units of upper division work in Theatre Arts, including courses comparable to those required at this University.

Each student applying for admission to a graduate degree program in Theatre Arts must initiate, in the department office, a request to receive a departmental evaluation, based upon diagnostic examination and an analysis of official undergraduate transcripts to determine any deficiencies and all areas which must be strengthened by the graduate program.

Advancement to Candidacy

1. Satisfy the general University requirements;
2. Remove all undergraduate deficiencies as determined by the departmental evaluation and/or the Dean of Graduate Studies;
3. Submit a program for approval by the department chair, the graduate advisor and the Dean of Graduate Studies.

Requirements

A minimum of 36 units in approved upper division and graduate courses, including:

1. 22 units in Theatre Arts, of which at least 18 units must be in the 500 and/or 600 series completed at this University. Required courses: THEA 696, 694, 523, 426, and 698. Determination of the specific courses will be made by the Theatre Arts Graduate Committee and approved by the Theatre Arts Graduate Advisor;
2. 14 approved elective units, of which six may be in approved areas related to Theatre Arts. (No more than 6 units may be in Education. Student teaching and special methods courses will not apply);
3. Each student will select an area of specialization and complete a research thesis. The student must enroll in THEA 698 to a maximum of 4 units and thereafter enroll in XGS 700 until the thesis is complete and approved.

Master of Fine Arts in Theatre Arts

The Master of Fine Arts Degree in Theatre Arts is the terminal degree offering the minimum professional training deemed necessary by the major Theatre Arts Schools in the United States.

All students admitted to the MFA program are members of California Repertory Company and are subject to the operating procedures of the company. CalRep, the professional arm of the Theatre Arts Department, prepares and performs plays from the canon of international dramatic literature.

Criteria for Admission to the Program

1. Students applying for the MFA program must have completed a bachelor's or master's degree in Theatre Arts from an accredited institution with a 3.0 GPA in upper-division theatre courses, meet University admission requirements, and submit evidence of creative ability and professional intent in one of the following areas: Acting, Technical Theatre/Design, Theatre Management;
2. When an undergraduate degree has been completed in a program having different requirements than those at CSULB or in some field other than Theatre Arts, additional preparation and time may be required before the student can be considered for classified status in the degree program. Up to 24 units of credit from an MA degree program may be acceptable after review of the faculty evaluation committee and approval by the Dean;
3. Admission to the program in Acting requires audition and interview. Admission to the program in Technical Theatre/Design requires interview and/or submission of original work such as manuscripts, designs, renderings, slides, 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 normally requiring full time residency. Course requirements are arranged according to the following structure depending on the student's choice of option, Acting or Technical Theatre/Design:

Option in Acting (code THEAMF01)

60 units: THEA 501 (1 unit), 517 (4 units), 518 (4 units), 520A, 520B, 521A, 521B, 522A, 522B, 523, 524, 530A, 530B, 531A, 531B, 532A, 532B, 564A, 564B, 565A, 565B, 566A, 566B, 696, 699 (2 units)

Option in Technical Theatre/Design (code THEAMF02)

Costume Concentration

60 units: THEA 501, 517 (4 units), 518 (4 units), 519 (4 units), 523, 524, 541, 544, 546A, 546B, 550, 556A, 556B, 583, 586, 656A, 656B, 696, 699 and 4 units from THEA 540, 554, 584; and 8 units of electives can be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music and Dance.

Lighting Concentration

61 units: THEA 501, 517 (4 units), 518 (four units), 519 (4 units), 523, 524, 541, 544, 545A, 545B, 548A, 548B, 550, 581, 648A, 648B, 649A, 649B, 696, 699 and 4 units from THEA 540, 554, 584; and 8 units of electives can be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music and Dance.

Theatre Management Concentration

THEA 451, 501 (1 unit), 502, 503, 504, 517 (4 units), 518 (4 units), 519 (4 units), 523, 524, 550, 602 (6 units), 603, 696, 699 (5 units), MKTG 500, ACCT 500 and 3 units of electives. Electives with advisors's approval may be taken from the University at large.

Scenery Concentration

THEA 501, 517 (4 units), 518 (4 units), 519 (4 units), 523, 524, 541, 544, 545A, 545B, 548A, 548B, 550, 577, 648A, 648B, 649A, 649B, 696, and 4 units from THEA 540, 554; and 8 units of electives. Electives with advisors's approval may be taken from the University at large. Recommended electives include courses from Theatre Arts, Art, Art History, Music and Dance.

The options share a common core of courses which offer study in aesthetics, conceptualization, history, theory, literature, and research. The remainder of the courses offer students the opportunity to further develop artistic skills in their particular area of option. The program culminates in a major creative project.

1. 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.
2. The Technical Theatre/Design option requires work in a variety of skills development which emphasizes the technological as well as the artistic aspects of design and execution. Continuous advancing assignments in productions for public performances are required.

M.F.A. Transfer and Residence Policy

Transfer credit allowable toward the M.F.A. is normally not to exceed 24 units. All transferred credit use in the M.F.A. Program must be approved by the Graduate Advisor.

Courses (THEA)

Lower Division

10. Theatre Arts Showcase (1)

Participation in weekly programs dealing with all aspects of Theatre Arts. Required of Theatre Arts majors each semester. These units do not count toward graduation.

101. Fundamentals of Script Analysis (3)

A basic approach to the analysis of the play script, intended to provide theatre practitioners and generalists with the tools necessary to understand the 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.

112. Beginning Voice and Speech for the Actor (3)

Theory and practice in developing command of oral techniques for stage including breath support, resonance, free vocal release, and articulation. Letter grade only (A-F). (CAN DRAM 6)

113. Introduction to Acting (3)

Prerequisite or Corequisite: A General Education 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.

114A,B. Fundamentals of Acting (3,3)

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. (6 hrs lab.)

122. Appreciation of Theatre Arts (3)

Prerequisite or Corequisite: A General Education Foundation course. Appreciation and understanding of the arts of the theatre for the non-theatre major; standards for critical evaluation of the live theatre; lecture, discussion, written critiques and attendance at University sponsored productions required; not open to students with credit in THEA 124.

124. Introduction to World Theatre and Drama (3)

Prerequisite or Corequisite: A General Education 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.

140A,B. Theatre Arts Activity — Crew (1,1)

Participation in technical play production projects; specific assignment determined at initial meeting; 60 hrs minimum participation time or major crew assignment.

142. Elementary Stagecraft (3)

Basic physical equipment of the theatre, elementary scenic design, construction, rigging, painting and drafting. Practical lab assignments dealing with the preparation of scenery and props for University sponsored productions. Letter grade only (A-F). (1 hour lecture, 4 hours lab.)

144. Stage Make-up I (3)

Practical introduction to techniques of theatrical make-up. Students must be clean-shaven due to the nature of the course. Preparation of make-up material for University sponsored productions. May be taken concurrently with THEA 146. Letter grade only (A-F). (9 or more hrs lab.) (CAN DRAM 14)

146. Costume Crafts I (3)

Techniques of costume and accessory construction for the stage; use of fabrics, materials and equipment. Preparation of costumes and accessories for University sponsored productions. May be taken concurrently with THEA 144. Letter grade only (A-F). (9 or more hrs lab.)

148. Stage Lighting (3)

Theory and practice of modern stage lighting; functions of light; design of lighting layout; properties of various instruments; practical experience in the hanging and focusing of lighting equipment for University sponsored productions. Letter grade only (A-F). (1 hour lecture, 4 hours lab)

210A,B. Theatre Arts Activity — Cast (1,1)

Prerequisite: Sophomore class standing. Participation in acting projects; open to students cast in University-sponsored productions. (3 or more hrs lab.)

214. Intermediate Acting (3)

Prerequisites: THEA 112, 114A and B. 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 the development of a role. Letter grade only (A-F). (6 hours laboratory.)

240A,B. Theatre Arts Activity — Crew (1,1)

Prerequisite: Sophomore class standing. Participation in technical play production projects; specific assignment determined at initial meeting; 60 hrs minimum participation time or major crew assignment. (3 or more hrs lab.)

262. Beginning Movement for the Actor (3)

Practical study of movement fundamentals, body awareness, physical intentions, and non-verbal communication related to the beginning acting process.

271. Stage Management (3)

Management skills required for the professional stage manager. Course examines responsibilities, and function of the stage manager in relation to the director, designers, and performers. Letter grade only (A-F). (6 hrs lab.)

Upper Division**310A,B. Theatre Arts Activity — Cast (1,1)**

Prerequisite: Junior class standing. Participation in acting projects; open to students cast in University-sponsored productions. (3 or more hrs lab.)

312. Applied Voice and Speech for the Actor (3)

Prerequisite: THEA 112 or equivalent. Further study of vocal techniques for the theatre, including variety of quality, force, tempo and pitch, scansion, and imagery. Application of basics learned in 112 to more complicated dramatic texts.

316. Rehearsal and Performance (3)

Prerequisites: THEA 214. Performance based class focusing on the interrelationship of actor and director. Working with the director on the creative process, interpreting the demands of the director and combining these with the actor's creative process. Letter grade only (A-F). (6 hours laboratory.)

318. Advanced Scene Study (3)

Prerequisites: THEA 214, 316, and/or consent of instructor. Intensive scene study in modern dramatic texts. The class is designed to continue and strengthen the process of role development for the actor through scenic exercises. May be repeated to a maximum of six units. Letter grade only (A-F). (6 hours lab.)

321. 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).

322. History of Theatre and Drama Since 1660 (3)

Prerequisite: THEA 321 or consent of instructor. Development of Theatre Arts from the 17th Century to the present. Letter grade only (A-F).

324I. Theatre Today (3)

Prerequisites: Completion of the G. E. Foundation, one or more Explorations courses, and upper-division standing. This course 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 C/LT 324I. Letter grade only (A-F).

333. The Art of Visual Expression in the Theatre (3)

The course will explore the history of visual expression in the theatre and introduce the student to the basic skills in stage design including spatial design, composition, and color theory. The course will also cover the fundamentals of the process of designing for the theatre – developing the design from the initial script study through the collaborative process in rehearsal and into the theatre.

340A,B. Theatre Arts Activity — Crew (1,1)

Prerequisite: Junior class standing. Participation in technical play production projects; specific assignment determined at initial meeting; 60 hrs minimum participation time or major crew assignment. (3 or more hrs lab.)

341. Presentation Techniques for Theatre (3)

Develop an 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). (6 hrs lab)

***342. Advanced Technical Theatre (3)**

Prerequisite: THEA 142 or consent of instructor. The investigation of the 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. (9 or more hrs lab.)

352. Foundations of Visual Expression (3)

Introduction to the basics of visual composition stressing a link to the arts of Theatre Design. Emphasizes the development of visual discipline, creative skills and the poetic and artistic nature of the theatre design.

364. Stage Combat (3)

Prerequisite: THEA 262 or consent of instructor. A practical study of unarmed combat for the stage. Covers technique, safety, and application of combat skills to the acting process. Letter grade only (A-F). (6 hrs lab.)

373. Directing for the Camera (3)

Prerequisites: THEA 214 or consent of instructor. Study of script analysis, filmic space, creating mise-en-scene, decoupage, and working with the actor. Emphasis on a series of collaborative exercises between director and actor.

***374. Fundamentals of Directing (3)**

Prerequisite: THEA 101 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.

***375. Intermediate Directing (3)**

Prerequisites: THEA 214, 316, 374, or consent of instructor. Intensive work using nonrealistic plays to develop director's concept, advanced script analysis and an approach to the 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. (6 hrs lab.)

***380. Playwriting (3)**

Creative writing for the stage. Study of character, concept, theme, dialogue and structure.

410A,B. Theatre Arts Activity — Cast (1,1)

Prerequisite: Senior class standing. Participation in acting projects; open to students cast in University-sponsored productions. (3 or more hrs lab.)

413. Film/Video Acting (3)

Prerequisite: THEA 318 or consent of instructor. Acting techniques required for the 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 hrs lab.)

414. Period Scene Study (3)

Prerequisite: THEA 318 and/or consent of instructor. Scenes from period plays including Greek, Shakespeare, Comedy of Manners. Analysis of the play's structure in terms of language, background, human behavior. Letter grade only (A-F).

415. Audition Techniques (3)

Prerequisite: THEA 318 or consent of instructor. This course is designed to acquaint the 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). (6 hrs lab.)

425I. Theatre and Cinema (3)

Examines relationships between theatre and cinema both historically and within the problematics of realism, comedy and melodrama. Letter grade only (A-F).

***426. Dramatic Theory and Criticism (3)**

Prerequisite: THEA 101 or consent of instructor. Study of the major theories of dramatic literature and performance. Analysis of dramatic works from the standpoint of genre, style and structure.

427. Dramatic Construction (3)

Completion of the Foundation: at least one Exploration course in Theatre Arts or in literature (an English literature course, a comparative literature course, a foreign language literature course, or other literature course); and upper division standing. Examination 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, 146, 148, 344 or consent of instructor. Integration of the styles and methods of theatrical costume, make-up, scenery and lighting design. Letter grade only (A-F).

440A,B. Theatre Arts Activity — Crew (1,1)

Prerequisite: Senior class standing. Participation in technical play production projects; specific assignment determined at initial meeting; 60 hrs minimum participation time or major crew assignment. (3 or more hrs lab.)

441. Scenographic Techniques (3)

A study of the drafting techniques used to translate the designer's vision to the finished set on stage. Includes both traditional and computer aided design and drafting tools. Letter grade only (A-F).

442. Scenic Technical Skills (3)

Prerequisites: THEA 342 or consent of instructor. The use of materials and construction methods in stage properties, set dressing and furniture. Painting techniques for scenery and properties. Supervision in the practical application of these elements in University sponsored productions. Letter grade only (A-F). (6 hrs lab.)

***446. Costume Design (3)**

Prerequisites: THEA 101, 146, 344 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 the costume rendering. May be repeated for a maximum of 6 units. Tradition grading only.

447. Costume Technical Skills (3)

Prerequisite: THEA 146 or consent of instructor. Analysis of the structure of costumes and accessories. Advanced technical projects using materials, patterning and construction methods in costume and accessories. Supervision in the practical application of these elements in University sponsored productions. (6 hours lab.) May be repeated for a maximum of 6 units. Letter grade only (A-F).

***448. Lighting Design (3)**

Prerequisites: THEA 101, 148, 344 or consent of instructor. Techniques of designing lighting for various stage forms; creative planning and projection of designs for specific productions. Course may be repeated to a maximum of 6 units. Letter grade only (A-F).

***449. Sound Design for the Theatre (3)**

Introduction to the scope, tools, materials and practices of sound in the theatre today. Letter grade only (A-F).

***451. Computer Applications for the Theatre (3)**

The use of computers in the process of scenic, lighting, and costume design and the application of general purpose software in the management and operation of performing arts organizations.

***452. Writing for the Theatre Arts (3)**

Writing non-fiction prose, with emphasis on particular features of writing in the Theatre Arts. Letter grade only (A-F). (6 hrs lab.)

***466. Costuming for Media Productions (3)**

Exploration of costume skills specific to recorded media including continuity, script break-down and project management. Letter grade only (A-F).

472. Technical Direction (3)

Prerequisite: THEA 342 or permission of instructor. The course will cover properties of materials, structural analysis, project planning processes and problem solving as they relate to the construction of stage scenery, its installation in the theatre, and the organizational process. Project work in the areas of scenery construction, rigging, pneumatics and hydraulics, shop organization and layout, and crew training and management will comprise the major portion of the course. Letter grade only (A-F).

***476. Theatre Management (3)**

Examination of administration, management and promotion of a producing theatre organization. Practical application required in University-sponsored productions. (9 or more hrs lab.)

***490. Special Topics in Theatre Arts (1-3)**

Prerequisites: Senior standing in major or consent of instructor. Topics of current interest in Theatre Arts selected for intensive study. May be taken for maximum of nine units. Topics will be announced in the *Schedule of Classes*.

***498. Special Studies in Theatre Arts (3)**

Prerequisite: Senior standing in major or consent of instructor. Independent projects and research of advanced nature in the area of Theatre Arts under faculty supervision. Limited to 6 units in any one area. Area will be designated by letter at time of registration as (a) acting, (b) directing, (c) costume, (d) scenery, (e) properties, (f) playwriting, (j) theatre history, (k) theatre criticism, (l) movement, (m) makeup, (n) lighting, (o) voice, (p) stage management, (q) theatre management, (r) dance, (s) technical direction. Letter grade only (A-F).

Graduate Level

501. Introduction to Graduate Studies (1)

Methodological issues involved in graduate theatre research; bibliographical studies and library research; study and critical evolution of research; methods in the development of research as relates to the theatre artist. Letter grade only (A-F).

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. The principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study. Letter grade only (A-F). Course may be repeated to a maximum of 6 units.

503. Leadership and the Arts (3)

Prerequisites: Acceptance into the MFA Program or senior status 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. The context for leadership in arts organization is assessed and matched against students' personal leadership styles. Letter grade only (A-F).

504. Managing the Not-For-Profit Arts Organization (3)

Prerequisites: Acceptance into the MFA Program or senior status and completion of THEA 476 or consent of instructor. Study of the principles of organizational management as applied to not-for-profit arts organizations. Issues include strategic planning and analysis, organizing, staffing, leading and controlling. Also to be studied are the principles and practices of fundraising in the not-for-profit environment. Letter grade only (A-F).

507. Entertainment Law (3)

Prerequisite: Acceptance into the MFA Program. An overview of the legal aspects of the entertainment business, especially in the 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 for a maximum of 4 units (6 hrs 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 for a maximum of 4 units (6 hrs 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 for a maximum of 4 units. (6 hrs lab.)

520A. Voice I (2)

Prerequisite: Acceptance into the MFA Program. Laying the groundwork in Voice and Speech techniques for professional actors. Letter grade only (A-F). (4 hrs lab.)

520B. Voice I (2)

Prerequisites: Acceptance into MFA Program. Application of vocal technique into various styles of verse and prose for meaningful vocal expressiveness. Letter grade only (A-F). (4 hrs lab.)

521A. Voice II (2)

Prerequisites: Acceptance into MFA Program. Exploration of extensive vocal variety and expressiveness, using the four components of voice: quality, force, tempo, pitch. Expanding the boundaries. Letter grade only (A-F). (4 hrs lab.)

521B. Voice II (2)

Prerequisites: Acceptance into the MFA Program. Analysis and development of dialects and accents for performance. Letter grade only (A-F). (4 hrs lab.)

522A. Voice III (2)

Prerequisite: Acceptance into MFA Program. Advanced study of dialects. Coursework covers research, analysis, and performance of selected dialects in the context of a play. Letter grade only (A-F).

522B. Voice III (2)

Prerequisite: Acceptance into MFA Program. Exploration of microphone techniques. Coursework covers stand-up, radio drama, dubbing, animation, and practice in the development of a demo-tape for professional voice-over work. Letter grade only (A-F).

523. Theory and Practice of Contemporary Theatre (3)

Critical exploration of the major schools of thought between 1970-present including styles, genres and both national and international trends. Contributions of theatre practitioners and theorists and the role of the 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.

530A. Acting in Repertory I (2)

Prerequisite: Acceptance into the MFA program. Foundation and development of individual and ensemble acting techniques necessary for the repertory actor and company. Applicable and related to performance schedule. Letter grade only (A-F).

530B. Acting in Repertory I (2)

Prerequisite: Acceptance into the MFA program and THEA 530A. Variable modules of technique training in ensemble and interaction skills for the repertory actor. Dependent upon needs of individual actor, ensemble and/or performance schedule. Letter grade only (A-F).

531A. Acting in Repertory II (2)

Prerequisite: Acceptance into the MFA program. Development of a variety of acting techniques available to the actor for playing situation, character, style and theatricality. Applicable and related to the performance schedule. Letter grade only (A-F).

531B. Acting in Repertory II (2)

Prerequisite: Acceptance into the MFA program and THEA 531A. Variable technique modules in further development of repertory acting skills for playing situation, character, style and theatricality. Dependent upon needs of individual actor, ensemble and/or performance schedule. Letter grade only (A-F).

532A. Acting in Repertory III (2)

Prerequisite: Acceptance into the MFA program. Advanced and professional technique training of skill variety in the repertory actor. Applicable and related to the performance schedule. Letter grade only (A-F).

532B. Acting in Repertory III (2)

Prerequisite: Acceptance into the MFA program and THEA 532A. Variable advanced technique modules for expansion and enrichment of professional acting skills for the individual and ensemble. Dependent upon needs of individual actor, ensemble and/or performance schedule. Letter grade only (A-F).

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 the fabrication and finishing. (4 hrs lab)

541. Portfolio Development (2)

A study of the content and presentation forms of the designer's portfolio, resume and cover letter. Acquaints the designer/technician with interview skills and practical business information. Letter grade only (A-F). (4 hrs lab.)

544. Visual Concepts in Theatre Design (2)

Foundations in visual conceptualization emphasizing the development of visual discipline, creative skills and the poetic nature of theatre design. Letter grade only (A-F). (4 hrs lab)

545A. Computer Aided Design for the Theatre (2)

The application of two and three dimensional computer aided design and drafting programs to problems in technical theatre and design. The course concentrates on the application of 2D CADD programs to common theatrical drafting problems. The course will also explore the use of 3D CADD programs as a tool for the designer in the exploration of the theatrical space. Letter grade only (A-F). (4 hrs lab.)

545B. Computer Aided Design for the Theatre (2)

Prerequisite: THEA 545A or consent of instructor. Advanced application of computer aided design for the theatrical lighting designer. Letter grade only (A-F). (4 hrs 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 hrs lab.)

546B. Advanced Costume Design I (2)

Prerequisite: THEA 546A or consent of instructor. Exploration of the elements of design as demanded by a variety of scripts and styles. Letter grade only (A-F). (4 hrs lab.)

548A. Advanced Lighting Design I (2)

Techniques of designing lighting for various stage forms. Letter grade only (A-F). (4 hrs lab.)

548B. Advanced Lighting Design I (2)

Prerequisite: THEA 548A or consent of instructor. Creative planning and development of lighting designs for specific productions. Letter grade only (A-F). (4 hrs lab.)

550. Computer Graphics for Theatre (3)

Prerequisite: THEA 451 or equivalent. This course is a comprehensive study of the 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).

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 hrs lab.)

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 hrs 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 hrs lab.)

564A. Movement I (2)

Prerequisite: Acceptance into the MFA Program. Practical study in movement fundamentals, body mechanics, and non-verbal communication. Exploration of movement as actor's tool to aid in the acting process. Letter grade only (A-F). (4 hrs lab.)

564B. Movement I (2)

Prerequisite: Acceptance into the MFA Program. 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). (4 hrs lab.)

565A. Movement II (2)

Prerequisite: Acceptance into the MFA Program. A practical study of unarmed combat for the stage. Coursework covers technique, safety, choreography, and application to the acting process, including the performance of scenes that include combat. Letter grade only (A-F). (4 hrs lab.)

565B. Movement II (2)

Prerequisite: Acceptance into MFA Program. A practical study of armed combat for the stage, including quarterstaves, broadswords, sabres, rapiers and daggers. Coursework covers technique, safety, choreography, and application to the acting process. (4 hrs lab.) Letter grade only (A-F).

566A. Movement III (2)

Prerequisites: Acceptance into the MFA Program. Historical and practical study of movement styles from selected theatrical periods through the eighteenth century. Coursework covers social dancing, movement, manners, and the handling of period costumes, props, and accessories. Letter grade only (A-F).

566B. Movement III (2)

Prerequisite: Acceptance into MFA Program. Historical and practical study of movement styles of the nineteenth and twentieth centuries. Coursework covers social dancing, movement, manners, and the handling of period costumes, props, and accessories. Letter grade only (A-F).

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 the scenic rendering and model. Letter grade only (A-F).

580B. Scene Design I (2)

Prerequisite: THEA 580A or consent of instructor. Exploration of the 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).

581. Scenographic Techniques (2)

A study of the drafting techniques used to translate the designer's vision to the finished set on stage. Includes both traditional and computer aided design and drafting tools. Letter grade only (A-F).

583. Theatrical Patterning Methods (2)

Exploration of fitting, advanced patterning and construction techniques. Projects in fitting problems, flat patterning, draping, understructures and tailoring for the theatre. Letter grade only (A-F).

584. Rendering and Painting for Theatre (2)

Introduction to the basics of rendering and painting stressing a link to the arts of theatre design. Developing an ability to depict form and space. Emphasizes the development of visual discipline, drawing and rendering techniques used in the visual presentation of stage design and scenic painting. Letter grade only (A-F). (6 or more 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 hrs lab.)

585B. Scene Design II (2)

Prerequisite: THEA 585A or consent of instructor. Further development of skills in scene design for the multi-set play. Development of advanced model making techniques. Letter grade only (A-F). (4 hrs lab.)

602. Seminar in Theatre Management II (3)

Prerequisites: Acceptance into the MFA Program. Study of the application of contemporary principles of management processes specifically targeted to people pursuing professional Theatre Arts Management careers. The applications of the principles and practices of marketing, development, fund-raising, and publicity are analyzed and assessed through research and study. Course may be repeated to a maximum of 9 units. Letter grade only (A-F).

603. Producing Commercial Theatre (3)

Prerequisite: Acceptance into the MFA Program. An examination of all facets of professional theatre production including off-Broadway, Broadway, regional and stock operations.

614. Advanced Period Scene Study (3)

Prerequisite: Acceptance into MFA program. Acting in Shakespeare and advanced scene study from selected theatrical periods and plays. Analysis and exercises include language, background, human behavior. Letter grade only (A-F).

648A. Advanced Lighting Design II (2)

The direct application of cueing and the structuring of the total lighting design within the time constraints of rehearsal and production. Letter grade only (A-F). (4 hrs lab.)

648B. Advanced Lighting Design II (2)

Prerequisites: THEA 648A or consent of instructor. Development of skills in the lighting design process for a variety of scripts and styles with specific challenges and complex production format. Letter grade only (A-F). (4 hrs lab.)

649A. Advanced Lighting Design III (2)

Development of skills in lighting for the musical, opera, and dance. Letter grade only (A-F).

649B. Advanced Lighting Design III (2)

Prerequisite: 649A or consent of instructor. Development of skills in lighting for other production venues. Letter grade only (A-F).

656A. Advanced Costume Design III (2)

Development of skills in costume design for the musical, opera, and dance. Letter grade only (A-F). (4 hrs 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 hrs lab.)

685A. Scene Design III (2)

Development of skills in scene design for the musical, opera, and dance. Letter grade only (A-F). (4 hrs lab.)

685B. Scene Design III (2)

Prerequisites: THEA 685A or consent of instructor. Further development of skills in scene design for other production venues. Letter grade only (A-F). (4 hrs 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 the practical application of these elements in university sponsored productions. (4 hrs lab.) Letter grade only (A-F).

690. Special Topics in Theatre Arts (1-3)

Topics of current interest in Theatre Arts selected for intensive study. May be taken for maximum of nine units. Topics will be announced in the Schedule of Classes. Letter grade only (A-F).

694. Advanced Studies in Theatre Arts (3)

Advanced individual projects with faculty supervision in an area of Theatre Arts specialization. Limited to three units in any one area per semester and no more than six units in one semester with a total of nine units in any one area. Areas will be designated by letter at time of registration as (a) acting, (b) directing, (c) costumes, (d) scenery, (e) properties, (f) playwriting, (j) theatre history, (k) theatre criticism, (l) movement, (m) makeup, (n) lighting, (o) voice, (p) stage management, (q) theatre management, (s) technical direction. Letter grade only (A-F). Course may be repeated to a maximum of 9 units.

A. Acting

B. Directing

C. Costumes

D. Scenery

E. Properties

F. Playwriting

J. Theatre History

K. Theatre Criticism

L. Movement

M. Makeup

N. Lighting

O. Voice

P. Stage Management

Q. Theatre Management

S. Technical Direction

696. Aesthetic Theory and Conceptualization (3)

A study of theoretical aesthetics as it applies to the creative act. Practical application of research and variable aesthetic elements in production style and conceptualization. Letter grade only (A-F).

698. MA Thesis (1-4)

Prerequisites: Advancement to candidacy and consent of department chair. Preparation, completion and submission of thesis. Letter grade only (A-F).

699. MFA Thesis (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). Course may be repeated for a maximum of 6 units.

UNIVERSITY COLLEGE AND EXTENSION SERVICES

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University College and Extension Services (UCES) is one of the eight academic colleges and the self-support community outreach arm of the university. The college provides additional access to CSULB's exceptional academic programs and educational resources by offering over 550 credit and professional development (noncredit) programs every semester. The programs are designed to meet the personal and professional development needs of more than 30,000 individuals each year. UCES identifies and addresses the educational and training needs most relevant to its customers. Its capabilities extend internationally.

Why UCES Is Different – Access and Opportunity

University College and Extension Services is different from CSULB's other academic colleges because it is not focused on one specific subject area, such as arts or sciences. Its purpose, aligned with the CSU Cornerstones Report, is to "provide increased access to graduate education and continuing education in programs central to the mission of the university, to lifelong opportunities for our students, and to the continued health of California's community and economy." (CSU Cornerstone Principle 6a)

This means that UCES provides a variety of ways to bring people to the university, and to bring the university and its programs to the people, through the innovative delivery of many different types of courses and programs across di-

verse subject areas. UCES' unique position as both an academic college and a community outreach entity means that partnerships and collaboration - with the university, businesses, organizations, and community leadership - are an integral part of its operation. Fostering collaborative academic initiatives, both credit and professional development (noncredit) has always been one of the highest priorities of the UCES administrative leadership.

UCES programs do not receive state funding and are supported entirely by student fees.

The University College Milestone

Many universities across the U.S. have been changing the name of their extension divisions to a name that better describes campus-approved, high quality credit course offerings taught by resident faculty. At CSULB, University Extension Services became University College and Extension Services in 1994. CSULB is the first in the CSU system to have a University College and an advisory committee to provide for an open line of communication with the faculty, students, and administration. As an academic college, UCES makes it easier for the campus to offer credit courses and degree programs to expanded constituencies in our community.

When students enroll in a credit course through University College, they will know that it is taught by resident faculty with the same course of study and academic expectations associated with state supported courses.

UCES Goal

To provide individuals, institutions, organizations, and the global community with access to cost-effective, quality educational opportunities by offering the best educational choices for the best value.

UCES Departments/Program Areas

UCES Customer Center	800/963-2250
Professional Development (noncredit)	
Business and Management	562/985-8452
Mark Smith	
Computer Animation	562/985-4486
Penni Wells	
Computer Graphics and Web Design	562/985-4486
Penni Wells	
Engineering and Information Technology	562/985-8452
Mark Smith	
Entertainment Studies	562/985-4486
Penni Wells	
International Trade and Transportation	562/296-1170
Marianne Venieris	
Personal Enrichment/Arts	562/985-8455
Vacant	
Test Preparation	562/985-8455
Vacant	
Credit Programs – Summer Sessions	562/985-8662
Nancy Freer	
Credit Programs – Winter Session	562/985-7398
Denis Arsenault	
Credit Programs – Open University	562/985-8453
Fran Vogel	
On-line Programs/Distance Learning	562/985-8447
Inna Lisker	
American Language Institute	562/985-8427
Debra Jonas	
Registration	562/985-4535
Michele Mumm	

Programs

UCES maintains a customer-focused market-driven approach to developing and delivering programs. As a result, the programs may change often to adapt to the training and educational needs of the marketplace. UCES offers both professional development (noncredit) and credit programs, in many different subject areas. Whether the program is credit-bearing, or not for university credit, UCES strives to provide the following features in every course:

- Quality curriculum
- Expert instructors
- Convenient days/times
- Affordable fees and payment plan options
- Fast, easy registration

In addition, UCES provides companies, organizations, and government agencies with customized professional development programs for employees at their work site or at CSULB.

For a free catalog of the latest comprehensive program listings and descriptions, call the UCES Customer Center (800) 963-2250 or visit the web site <http://www.uces.csulb.edu>.

The following is just a sampling of the many types of programs offered by UCES.

Professional Development Certificate Programs Offered

Entrepreneurship: New Business Creation
Leadership for Effective Management
Human Resource Management
Professional Coaching and Mentoring
Professional Meeting and Events Planning
Purchasing and Procurement
Engineering and Architectural AutoCAD
Industrial Control Systems Programming
Graphic Design for Non-Designers
Character Animation with Maya
3D Studio Max
UNIX System and Networking
Windows 2000/.NET Network Specialist (MCSE/MCSA)
Oracle Internet Applications Developer Specialist
Costume and Textiles Collections Management
Professional Writing

Professional Designation Programs and Industry – Specific Exam Prep Programs

Global Logistics Specialist
Costuming for Film and Television
Computer Applications, including: A+, CISCO, Java, Network+, Oracle, Windows 2000, etc.
The SHRM Learning System (PHR/SPHR exam prep)
Medical Coding (on-line)
U.S. Custom Brokers Exam Prep (on-line)

On-line Programs

Business Finance and Budgeting for Managers
High Impact Business Writing
Project Management (PMBOK-aligned)
Strategic Marketing in Action
Web-Based Instructional Design and Training Methods

e-Business Series

Managing Sexual Harassment

Medical Coding

Many courses for university credit can be taken on-line through UCES.

Degrees Offered

Degree programs offered by UCES are in partnership with other CSULB colleges.

Master of Arts in Global Logistics

Master of Arts in Kinesiology, Sports Management

Master of Business Administration

(Fully Employed MBA for Working Adults)

Master of Public Administration

Master of Social Work

Bachelor of Science in Occupational Studies

Credit Certificates Offered

BCLAD

Aerospace Manufacturing Engineering

The American Language Institute

The American Language Institute provides English as a Second Language instruction to international students. ALI offerings include long-term and short-term programs, and credit and non-credit courses. Programs offered through the ALI include the Intensive English Program, a non-credit program offered year-round, 3 sessions per year, in which students are in class up to 25 hours per week.

Open University

Open University provides an opportunity for those people who are not currently admitted to and/or registered at CSULB to enroll in most courses offered by the university. Enrollment is on a space-available basis, and subject to approval of the instructor and department chair. The current fee for all courses taken through Open University is \$145 per unit. Students receive Open University Special Sessions credit. For more information, call the UCES, Customer Center at (562) 985-5561.

Centers/Consortiums

Center for International Trade and Transportation (CITT)

Southern California Process Improvement Network (SPIN)

College Facilities

- Full service award-winning video and multimedia production facility located on campus, including a 2200 square-foot studio, featuring the leading computer animation software
- Computer labs both on and off campus, equipped with the latest hardware and software – UNIX, IBM-PC, Macintosh, Silicon Graphics, Windows 2000, GIS
- Executive conference and training rooms

Continuing Education Units

Continuing Education Units (CEUs) are a permanent record of attendance in professional development (noncredit) programs. They are awarded by The American Council on Education (ACE) and administered through UCES. CEUs can enhance ones resume and provide another opportunity to showcase a commitment to your own professional development. CEUs for specific professions are also available for select programs.

UNIVERSITY HONORS PROGRAM

University Academic Programs

Dean, Undergraduate Studies

Dorothy M. Goldish

Office

Academic Affairs

Director

Albie Burke

Office

Library West (LBW), Room 213

Phone

(562) 985-4706

Advising Coordinator

Duan Jackson

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

The University Honors Program exists to provide a selected group of qualified students with a unique educational experience. It unites the committed student and faculty member in a learning relationship in which each has the highest expectations of the other. The Program seeks to accomplish these goals in two ways: first, it broadens students' intellectual horizons by encouraging them to explore areas of thought not closely related to their major fields of study; and second, it allows students to work in their major fields in greater depth than would be possible in a conventional course pattern. The work of the first two years satisfies, in part, the University's General Education Requirements and is directed toward the first objective. The work of the Junior and Senior years, which includes independent study experiences and a senior thesis, is directed toward the second objective.

The University Honors Program is designed so that students will not only master a substantial amount of knowledge, but will also develop the capacity for balanced intellectual judgment and the powers of abstraction and conceptualization. Students will be 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 the opportunities available in the University.

Students who successfully complete the requirements of the University Honors Program will receive a Certificate and an annotation on their transcript which mark the graduate as a person of intellectual accomplishment, one who has demonstrated a disciplined curiosity and dedication to the pursuit of knowledge.

Available within the University Honors Program are three alternatives designed to meet the varying needs of students.

1. General Honors;
2. Honors in the Major;
3. A combination of the above for which both the course work prescribed for General Honors and the departmental requirements for Honors in the Major are successfully satisfied.

General Honors

General Honors is a special approach to the General Education Requirements of the University which enhances and builds on them. It is a program of carefully selected courses and specially designed, multi-disciplinary seminars from which a student chooses a minimum of 30 units (a minimum of 18 units in the case of upper division transfers), most of which are applied toward the 51 units of General Education courses required for graduation of all students. Those courses designated for General Honors credit encourage student participation on an academic level not generally possible in the usual curricular offering.

Objectives

- to provide highly motivated students an exceptional educational opportunity to challenge and expand their intellectual capacities, especially in terms of increased breadth and depth;

- to deepen the students' intellectual experiences by stimulating and guiding their own curiosity;
- to encourage freedom of initiative;
- to provide an academic and cultural environment that inspires creative activity through close working relationships with distinguished faculty;
- to advise students in their academic planning to meet the University's General Education requirements through a cohesive and unified program of study;
- to prepare students to write an Honors Thesis that is a preparation for advanced study, and a demonstration that the student has acquired the intellectual confidence and academic independence that are indicative of the maturely educated person.

Admission Requirements

There are three ways a student may enter the University Honors Program:

- Incoming students are invited to apply to General Honors on the basis of high school class standings, ACT composite score, and/or SAT scores. Normally, students should be in the upper ten percent of their high school classes, and have a composite ACT score of at least 24, and/or a SAT score of at least 1100, and a GPA of 3.3 or better. However, if not all of these criteria are met, a combination of them may be evaluated in addition to a letter of recommendation and a personal interview with the Honors Program Director.
- Any student who maintains a 3.3 or better overall GPA at California State University, Long Beach in 12 or more units of coursework is eligible to participate in General Honors with a letter of recommendation from one of her/his instructors and a personal interview with the Honors Program Director. Students with a GPA of 3.3 or above in 12 or more units at California State University, Long Beach normally will be granted automatic acceptance into the Program upon application.
- Students not meeting the designated criteria may petition for admission to General Honors. Students are required to submit letters of recommendation from two instructors familiar with their work. These exceptional cases will be reviewed by the Director and the University Honors Council. 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 enter General Honors provided they have a minimum equivalent of a 3.3 average in all course work at the accredited institution from which they are transferring.

Qualified students may enter General Honors as late as the junior year. Where Honors transfer agreements have been negotiated with a community college (such as with Long Beach City College) up to 12 transfer units will be accepted as meeting the requirements of the CSULB University Honors Program. Otherwise a waiver of some of the required Honors credits (not more than 6) may be granted by the Director and the University Honors Council.

General Information

Students who have failed to enroll in courses for Honors credit for two consecutive semesters will normally be withdrawn from the program;

A University Honors student who withdraws from the University during any semester will also be withdrawn from the program. A student may apply for readmission at the beginning of any semester in which he/she plans to enroll.

General Honors

Requirements

Every student electing General Honors in the University Honors Program must complete all university-wide graduation requirements, and the requirements for a major. General Honors is itself not a major.

A student must maintain an overall GPA of 3.00 or better in Honors and in all University courses attempted.

General Honors Plan I (minimum of 30 units) is designed for entering freshmen and consists of a minimum of 21 units of lower-and upper-division General Education courses (which include UHP 100 and UHP 150), UHP 300 (a non-General Education course), and a culminating 6-unit senior thesis/project in the student's major (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

General Honors Plan II (minimum of 18 units) is primarily for upper-division transfers from community colleges and consists of nine units of upper-division General Education courses, UHP 300 (a non-General Education course), and a culminating 6-unit senior thesis/project in the student's major (UHP 496, Research Participation, and UHP 498, Senior Thesis/Project).

Honors in the Major

Honors in the Major (minimum of 9 units) is designed for students who elect not to take General Education courses as a part of the University Honors Program or who decide to enter the Honors Program too late to do so; Honors in the Major consists of a minimum of one upper-division Honors—specific course in the student's major department and a culminating 6-unit senior thesis/project (courses in the major department equivalent to UHP 496 and UHP 498). Students in General Honors whose major department offers an Honors in the Major Program 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.

In consultation with a Departmental Honors in the major Faculty Advisor, a student can plan an enriched course of study in an academic major. This opportunity for program flexibility makes it possible for a student to elect the most relevant, exciting and enriched experiences offered by the department.

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 the University Honors Program Office and in participating departmental offices.

Admission Requirements

Please contact the department office or the University Honors Program Office for information regarding admission. Normally a student must be a declared major, usually with at least sophomore (30 units) standing.

Requirements

1. Completion of the requirements for the major. (The approval of the department chair and the Departmental Faculty Honors Advisor must be obtained to change any of the general major requirements);
2. Completion of a minimum of one upper-division Honors—specific course in the student's major department and a culminating 6-unit senior thesis/project (courses in the major department equivalent to UHP 496 and UHP 498).

Courses (UHP)

Lower Division

100. Angles of Vision — Honors (3)

This course emphasizes the kind of analytical and critical approaches that lead to original and creative thinking. The course concentrates on the development of seminar skills: the open exchange of viewpoints in discussion, close reading of major texts, preparation of analytical essays and oral presentations, extensive examination of explicit models and techniques of reasoning, conceptualization of research problems, and writing a documented paper. The course will confer credit in GE Category A.3. Required of all UHP students.

150. Exploring a Text — Honors (3)

Prerequisites: ENGL 100. Close reading of a work (or works) of literature — fiction or non-fiction — exploring issues of personal identity, moral choice, freedom and commitment. May be repeated with different topics for a maximum of six units of credit. The course will confer credit in GE Category E. 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. Course may be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

490. Special Topics — Honors (3)

Identification and critical analysis of current problems in selected areas. Topics to be announced in the *Schedule of Classes*. Course may be repeated to a maximum of 6 units with different topics. Letter grade only (A-F).

496. Research Participation — Honors (3)

Prerequisite: Permission of the Director of the Program and the supervising faculty member. Letter grade only (A-F).

497. Directed Studies — Honors (1-3)

Prerequisite: Permission of the Director of the Program and the supervising faculty member. Independent study under the supervision of a faculty member. Course may be repeated for a maximum of 6 units. Letter grade only (A-F).

498. Senior Thesis/Project — Honors (3)

Prerequisite: Permission of the Director of the Program and the supervising faculty member. Final completion of a thesis, or a project; or an exhibit or a performance. Letter grade only (A-F).

Other

Special honors sections of regular GE courses in various departments as listed under "University Honors Program" to be found in the current *Schedule of Classes*.

CSULB *the Beach*
Welcome!



THE UNIVERSITY

Celebration

On January 29, 1999, nearly 600 members of the faculty of California State University, Long Beach filed two abreast into the Pyramid Events Center wearing academic robes, hoods, and caps. Their colorful procession highlighted the fiftieth anniversary of the signing by Governor Earl Warren of the bill that authorized the creation of a new state college to serve the people of southeastern Los Angeles County and adjoining Orange County and kicked off a sixteen-month-long celebration of the University's record of achievement.

Los Angeles-Orange County State College opened its doors on September 28, 1949, to an entering group of 169 juniors and seniors. The *Schedule of Classes* listed 25 courses taught by thirteen faculty members in support of five undergraduate majors. The campus consisted of two converted apartment buildings at 5381 and 5401 Anaheim Road in Long Beach. Within two years the City of Long Beach purchased a permanent site for the fledgling institution and donated it to the state, construction began on the first permanent buildings, and the renamed Long Beach State College moved to its present location. Two decades later the rapidly growing institution had earned designation as a university and was the second largest in the California State University system. Today more than 34,000 undergraduate and graduate students are pursuing degrees and credentials under the direction of 1900 faculty members, supported by 1300 full-time and part-time staff.

The Legislature voted to establish a state college in the Long Beach area because it recognized that rapid suburban development would create a need for more trained teachers and business employees. Instead of limiting itself to those fields, however, California State University, Long Beach has evolved into one of the nation's leading urban comprehensive universities. In addition to Colleges of Education and Business Administration, CSULB developed a nationally renowned College of the Arts, a College of Engineering that attracts millions of dollars in government contracts and corporate donations, and a College of Health and Human Services that prepares a wide range of skilled personnel for the health care industry. The College of Liberal Arts and the College of Natural Science and Mathematics provide a solid foundation in general education for all CSULB undergraduates as well as majors ranging from anthropology to physics and from biochemistry to philosophy.

California State University, Long Beach has much to offer its students. It is located on and around a low hill less than two miles from the beaches of fashionable Belmont Shore. The beautifully landscaped 320-acre campus features many new and remodeled buildings. The faculty has made a commitment to excellence in both teaching and research. Most University classes are taught in small sections, so students have an opportunity for regular contact with their professors. Many undergraduate stu-

dents become involved in original research under faculty supervision, better preparing them for entry into graduate programs or the career fields of their choice. No wonder CSULB has attracted 350 California high school valedictorians and National Merit Finalists among its current undergraduate population. Whether students choose to live in University residence halls, in apartments off-campus, or at home,

CSULB offers a wealth of cultural and recreational opportunities. There are live performances of plays, music, and dance in the University's five theater facilities virtually every night of the week. The University Art Museum and several departmental galleries afford access to exciting innovations in the visual arts. Eighteen men's and women's sports compete in an NCAA Division I athletic program. The women's volleyball team has appeared in 8 Final Fours in the last 13 years, winning 3 national championships and finishing second in 2001. The athletic program also includes club or intramural competition in approximately 30 different sports. The Associated Students, Inc. and the Office of Student Life and Development sponsor nearly 200 additional campus organizations, ranging from fraternities and sororities to cultural associations, religious clubs, honor societies, political and social action clubs, and special interest clubs. As a result, students at CSULB are assured of a well-rounded collegiate experience if they take advantage of the opportunities that surround them.

Setting

The hilltop portion on the 322-acre campus overlooks the Pacific Ocean. Eighty permanent buildings house the various colleges, 63 academic departments and programs, 24 centers, 4 institutes, and 4 clinics.

A newly enlarged and remodeled University Student Union is located at the crossroads of the campus, providing a focal point for the total campus community. A centralized student services and administration center in Brotman Hall, near the Union, adds needed services. Specialized facilities for Engineering Technology, Dance, Design, Music, and Nursing have been completed, as has the International House student residence hall and meeting complex.

A state-of-the-art building for the College of Business Administration, complete with decision-support laboratories, multi-media capability, and modern lecture halls, opened in 1991. The Department of Dance occupied its new quarters in the largest and best-equipped instructional dance facility in the nation in time for the spring 1994 semester.

A central feature of the landscape design is a planting of 3,200 Helen Borchert flowering peach trees donated by the



Robert C. Maxson, President

citizens of Long Beach. Secluded landscape areas and buildings of appropriate scale help maintain a learning environment that encourages small group identification and personal privacy in the midst of 37,000 individuals sharing the same site, on what is essentially a large urban campus.

The campus has assumed a highly individual character. In 1965, the International Sculpture Symposium contributed 9 monumental pieces and designs to the University. These works received credits in 21 national and international publications, and in 1972 additional community funds in the form of a trust provided for the completion of the Carlson Memorial Tower, designed by French sculptor Andre Bloc. The campus sculpture collection has continued to expand, with the addition of works by artists such as Guy Dill, Michael Davis, Robert Irwin, Bryan Hunt, and Woods Davy. These acquisitions were made possible by private donations and grants from the National Endowment for the Arts to the University Art Museum.

Mission

California State University, Long Beach is a large urban comprehensive university in the California State University system. Its mission is high-quality education leading toward a broad range of baccalaureate and graduate degrees spanning the liberal arts and sciences and many applied and professional fields, with emphasis on instruction at the upper-division (junior and senior) and graduate levels, in accordance with the California Master Plan for Higher Education.

CSULB is committed to serving the people of California. To assure access and equity consistent with educational priorities, the University endeavors to serve students who can only attend in the evening as well as those who can attend during traditional daytime hours, those who must attend part time as well as those who attend full time, and those from population groups whose rates of enrollment historically have been lower than average as well as those from groups that have had historically higher rates of education. The University serves students who have graduated in the top third of the State's high school graduating class, students who have completed a community college program, and adults re-entering education.

The University's educational mission is to promote intellectual and personal development and to prepare students for lifelong learning as well as preparing them to succeed in a variety of professional endeavors and to function as informed, contributing members of the community. To these ends, the mission of the undergraduate curriculum is grounded in a strong general education

program, emphasizing the acquisition of writing, critical thinking, and analytical skills and knowledge of cultural and artistic traditions, the analysis of human behavior and society in the past and present, and scientific modes of inquiry. The mission of all degree programs is to provide each student with the skills necessary to pursue knowledge and to integrate information from various sources, and also to provide depth in at least one area of specialization. The mission of the graduate programs is to prepare students to enter careers requiring training beyond the baccalaureate, to advance in their jobs, or

to pursue advanced study. Doctoral programs are intended to provide both advanced knowledge and the skills needed to pursue independent research. Educational support programs and services for students emphasize the importance of personal, interpersonal, and societal development.

A fundamental goal of all of the University's programs is to prepare students to function effectively in a culturally diverse society, by developing an understanding of our diverse heritage, including the essential contributions of women and ethnic minorities. Instruction emphasizes the ethical and social dimensions of all disciplines, as well as their applications to contemporary world issues. Building upon the culturally diverse re-

gion it serves and the international character of its faculty, the University emphasizes international education in its curriculum.

The University seeks to involve students in learning by offering most of the curriculum in small sections taught by fully qualified, professionally active faculty members, and by providing opportunities for undergraduate as well as graduate students to work with faculty members in independent study and research. CSULB serves the surrounding community through applied research, training and community service programs, and consulting for government agencies, non-profit organizations, and private industry.

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 Academic Affairs. Additional information concerning departmental accreditation may be obtained from the department concerned or the Office of Academic Affairs.



- American Language Institute, UCES – 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, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Business Administration – Association to Advance Collegiate Schools of Business - International, 600 Emerson Road, Suite 300, St. Louis, MO 63141-6762, phone: 314-872-8481
- Chemistry (undergraduate) – American Chemical Society, Committee of Professional Training, 1155 Sixteenth St., NW, Washington, DC 20036, phone: 202-872-4589
- Communicative Disorders (graduate) – American Speech-Language-Hearing Association, Council on Academic Accreditation, 10801 Rockville Pike, Rockville, MD 20852, phone: 301-897-5700
- Computer Science (undergraduate) – Computer Science Accreditation Commission (CSAC) of Computer Science Accreditation Board (CSAB), 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7703
- Dance – National Association of Schools of Dance, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Design – National Association of Schools of Art and Design, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Dietetics (didactic program) – Commission on Accreditation for Dietetics Education, American Dietetics Association, 216 West Jackson Boulevard, Chicago, IL 60606-6995, phone: 312-899-0040, ext. 5400
- Educational – National Council for Accreditation of Teacher Education, 2010 Massachusetts Avenue, NW, Suite 500, Washington, DC 20036-1023, phone: 202-466-7496
- Engineering (undergraduate: Aerospace, Chemical, Civil, Computer, Electrical, Engineering Technology, Mechanical) – Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite #1050, Baltimore, MD 21202, phone: 410-347-7710
- Family and Consumer Sciences – American Association of Family and Consumer Sciences, Council for Accreditation, 1555 King Street, Alexandria, VA 22314, phone: 703-706-4600; and Commission on Accreditation/Approval for Dietetics Education, American Dietetic Association, 216 West Jackson Boulevard, Suite 800, Chicago, IL 60606-6995, phone: 312-899-4872
- Health Science (graduate) – Council on Education for Public Health, 1015 Fifteenth Street, NW, Washington, DC 20005, phone: 202-789-1050
- Kinesiotherapy – Commission on Accreditation on Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, phone: 7312-553-9355
- Music – National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- Nursing – Commission on Collegiate Nursing Education, 1 Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, phone: 202-887-6791
- Physical Therapy – Commission on Accreditation in Physical Therapy Education, American Physical Therapy Association, Transpotomac Plaza, 1111 North Fairfax Street, Alexandria, VA 22314, phone: 703-706-3245
- Public Policy and Administration – National Association of Schools of Public Affairs and Administration, Commission on Peer Review and Accreditation, 1120 G Street, NW, Suite 730, Washington, DC 20005, phone: 202-628-8965
- Radiation Therapy – Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901, phone: 312-704-5300
- Recreation and Leisure Studies – National Recreation and Park Association, Council on Accreditation, 22377 Belmont Ridge Road, Ashburn, VA 20148, phone: 703-858-0784
- Social Work – Council on Social Work Education, Commission on Accreditation, 1725 Duke Street, Suite 500, Alexandria, VA 22314, phone: 703-519-2044
- Theatre Arts – National Association of Schools of Theatre, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone: 703-437-0700
- University Art Museum – American Association of Museums, Suite 200, 1225 Eye St., NW, Washington, DC 20005, phone: 202-289-1818

The Faculty

The faculty of California State University, Long Beach is a dedicated group of men and women. Each has been well-prepared for the work of providing instruction to undergraduate and graduate students. The faculty create an intellectual atmosphere that encourages students to develop a spirit of investigation which becomes a life-long approach to issues and problems. It is the faculty's hope that students will gain respect for excellence of performance and take advantage of the wide range of educational opportunities available to them.

Faculty earn academic rank as they develop their course materials, research, academic and community service, and publications. The highest faculty rank is "Professor," sometimes called "full Professor." The intermediate rank is "Associate Professor." Most faculty begin their careers as "Assistant Professors."

The faculty are assigned to departments and programs within colleges of the University. The department chair is the academic leader of the department faculty.

A dean is the chief academic officer of a college. Deans are appointed by the Provost and Senior Vice President for Academic Affairs in consultation with the President and the college faculty. Most colleges have one or more associate deans to assist in the administration of college resources.

Elsewhere in this *Catalog* you will find the explicit policy of the University on grades and grading as well as policies on class attendance, withdrawal from courses, and cheating and plagiarism. These and other policies reflect the concerns of the faculty that students take seriously the opportunities made available to them. Beyond these rules and regulations the faculty expect student participation in education that may be different from or more active than what students have been used to in secondary schools. For every discipline the fund of knowledge to be absorbed, understood, and added to is expanding rapidly.

The role of the university professor is somewhat different from that of the high school teacher. University faculty are involved in the creation of knowledge as well as the dissemination of it. The expectation is that the students will not only use the 150 instructional days per year to the best possible advantage, but also by reflecting on the learning process, by thinking about how the professor came to understand and organize the knowledge presented, will learn how to take full advantage of the University's resources and those elsewhere, thus taking responsibility for the life-long process of personal education.

Academic Organization of the University

During the regular session California State University, Long Beach is as large as a small city. More than 34,000 students, 838 tenured and tenure-track faculty, 1,100 full-time and part-time lecturers, and nearly 1,300 staff members study and work on campus each week. In order to operate, the campus has been organized into eight colleges and many academic departments and programs. The names of the colleges, departments, and programs and their current deans are shown at the beginning of this catalog.

Colleges are usually composed of academic areas with some common characteristics. Because of this, colleges themselves suggest a way to look at the enormous fund of knowledge that is this University. One function of a college is to provide a forum for the faculty and the students to express academic matters before a knowledgeable group of people. At the university level this is a very important aspect of the educational process.

For students who have just begun their life in the University, some of the departments will be unknown territory. Other departments and programs will turn out to be considerably different from first expectations or previous experiences with high school subjects of the same or similar names. For students who have begun to focus their academic interests, exploration of the departments and programs of a college beyond the favorite first contact area will often prove to be a valuable part of the process of choosing an academic major.

This catalog is organized alphabetically by department and program.

Departments, Programs, and Studies

The elemental unit of academic organization at this University is the department. Departments are most often coincident with a discipline and usually share the same name. Faculty are members of departments. Thus the department of Biological Sciences has many "programs," including degrees in Biology and Microbiology, a minor in Biology, and a certificate in Bio-medical Art. You will also find in this catalog academic areas, like Gerontology, which are not part of any one department. Some of these areas are called "Studies," e.g., Women's Studies, Medieval Studies. This means that the field is essentially an interdisciplinary one and is the product of the activities of faculty from many departments.

Academic Senate, Councils, and Committees 2002-2003 Academic Year

The faculty is subdivided into departments and programs. Normally these sub-divisions have committees to discuss curriculum and other matters. Since departments and programs are constituent parts of the colleges, they also send members to college-level committees and councils. These

bodies serve to develop, refine, and review curriculum. At the University level faculty members from all of the colleges are elected to several councils and to the Academic Senate. These bodies concern themselves with campus-wide issues. Many of these councils, their subcommittees, and the Academic Senate have also provided for staff, student, and administration membership.

Chair of the Academic Senate — Wayne Dick

(Computer Engineering and Computer Science)

Chair of the Educational Policies Council — David G. Huckaby
(Biological Sciences)

Chair of the Graduate Council — Proveen Soni (Marketing)

Chair of the Program Review and Academic Planning Council
— Simeon J. Crowther (Economics)

Chair of the Financial Affairs Council — David Hood (History)

Chair of the Faculty Personnel Policies Council —
Kelly Janousek (Library)

Chair of the Teacher Preparation Committee — Gail Farmer
(Teacher Education)

The University Library

The mission of the University Library (www.csulb.edu/library) is to connect students, faculty, staff, and members of the local community with the information resources they need for study, research, and recreation. The library contains substantial collections of books, journals, government documents, videos, maps, and other physical materials, all listed in its online catalog, COAST (www.coast.csulb.edu). But these resources are enhanced, and even eclipsed, by the more than 4 million volumes available through the Link+ consortium (http://www.csulb.edu/library/guide/mutual_use_statement.html), by the library's subscriptions to thousands of web-based reference sources and full-text journals, and by its rapidly growing collection of electronic books. Increasingly, the library is able to deliver needed information to the desktop at any time of the day or night.

The library's staff and faculty are committed to efficient, helpful service, whether it be at the circulation desk, the reference center, the interlibrary services desk, or any of its other departments. Librarians guide scholars through the process of identifying, retrieving, organizing, and evaluating sources of information appropriate to their educational needs or personal interests. A wide range of library instruction opportunities is available to the campus community, from a credit course designed to introduce new students to basic concepts of information literacy, to librarian workshops geared to the needs of a particular course, to in-depth consultation focusing on a specific research topic. The library provides adaptive devices to make its print and electronic resources accessible to the disabled and works closely with Disabled Student Services to insure that equipment, facilities, and collections are responsive to special needs. The University Library's Special Collections Department contains rare, significant, or unusual books, manuscripts, correspondence, art prints, and photographic prints; details can be found at <http://www.csulb.edu/library/guide/serv/special.html>.

University Computing Resources

The University provides an extensive array of computing resources. Guidelines regarding the use of these resources can be found in the "Policy Governing Access to and Use of

CSULB Computing Resources" document. The complete text of the document can be viewed on the CSULB web site at <http://www.csulb.edu/~policy>.

Academic Computing Services

562-985-4505, <http://www.csulb.edu/acs>

Academic Computing Services (ACS) manages campus-wide computing resources including BeachBoard, CSULB's e-learning environment, Open Access Computer Labs, computer classrooms, the Development Lab and the Technology Help Desk. Learn more about these ACS resources below or visit the ACS website for more details.

BeachBoard, CSULB's E-learning environment

<http://beachboard.csulb.edu>

BeachBoard, CSULB's e-learning environment, provides students with the opportunity to stay connected with their instructors and classmates. BeachBoard may be a component of some or all of a student's courses as either a supplement to the course, as an element of a hybrid course or as the structure for a completely online course. As a supplement to the course, BeachBoard may provide a method of receiving class material, and checking grades, as well as other features. In a hybrid course, a combination of a traditional face-to-face class and online class, BeachBoard may also provide online quizzes, a virtual chatroom and discussion boards. In a completely online course, BeachBoard will serve as the method for all of the course's faculty-student interactions.

Students, faculty and staff also have the ability to manage their organizations on BeachBoard. These organizations provide the same collaborative features that a course on BeachBoard has and may include email lists, posting of announcements, a virtual chatroom, and discussion boards.

To access BeachBoard, students need a CSULB Internet Account, available at <http://www.csulb.edu/namemaster>. For all questions regarding BeachBoard, please contact the Technology Help Desk at (562) 985-4959, helpdesk@csulb.edu, or visit the THD website at <http://helpdesk.csulb.edu>.

CSULB Internet Account

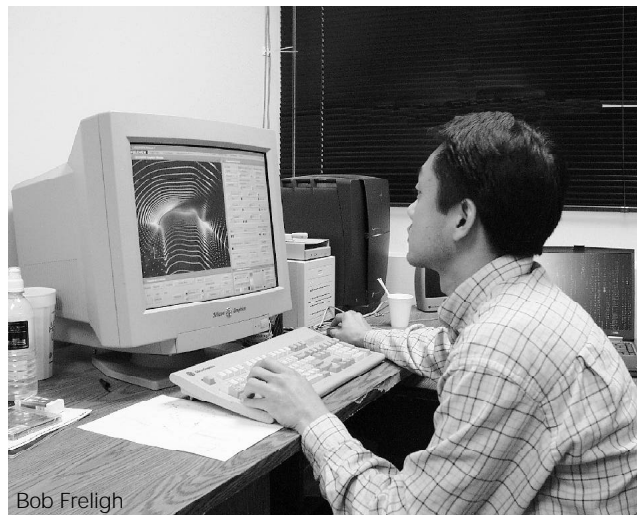
<http://helpdesk.csulb.edu/email.html>

Students can create their own CSULB Internet accounts at <http://www.csulb.edu/namemaster> or visit the Technology Help Desk Walk-In Service Center in the North Campus Center for personal assistance and service. A CSULB Internet account is required to access services including e-mail, web design, BeachBoard, library searches, software downloads, database specialty centers and remote access. Remote connectivity and Internet access is available from a home computer by dialing (562) 985-3500.

Development Lab

<http://www.csulb.edu/acs/devlab>

The ACS Development Lab, located in the North Campus Center, supports the use of interactive multimedia instructional materials for both classroom presentations and individual student learning. The lab offers training, consulting, and development expertise on a wide variety of media software applications and hardware, including digital audio and video editing. High quality color printing is also available in the Development Lab.



Bob Freleigh

Open Access Computer Labs

<http://www.csulb.edu/acs/labs>

ACS Open Access labs are located in the North Campus Center. Six computer classrooms, including one wireless laptop classroom, are located in LA5. These high-speed Windows and Macintosh labs also provide laptop connections and support for wireless computers. Each of the seven colleges' have computer labs available to support specialized hardware and software programs required for their respective departments. Contact the individual college or department for more details. For more information on ACS lab reservations, current hours of operation, tours, and the use of a wireless cart, visit the ACS Computer Labs website or call (562) 985-2303.

Software

http://www.csulb.edu/aux/bookstore/Computer_Store/index.html

Students can purchase Microsoft products at the Forty-Niner Shops Bookstore under the CSU-Microsoft Enterprise Agreement. The agreement provides licenses for both current and future versions of Microsoft Office Professional, FrontPage, Visual Studio Professional, and Windows operating systems. The Bookstore also provides educational pricing for other software products and hardware.

Technology Help Desk

<http://helpdesk.csulb.edu>
562-985-4959

The Technology Help Desk (THD) Call Center is available to all students, faculty, and staff members with a current CSULB Internet account for all computer or technology related issues. The THD is the single point of contact for the university computing community and has professional support representatives available to assist with CSULB Internet accounts, email, BeachBoard, anti-virus, Internet and Browser configuration, application software, and much more.

The THD Walk-In Service Center in the main lobby of the North Campus Center is available to assist in the creation of CSULB Internet accounts, password resets, BeachBoard information, and more.

For current hours of operation and service information, visit the THD website or contact the THD Call Center.

Research Centers and Institutes

- Bureau of Governmental Research and Services – Michelle Saint-Germain, Director
- California Advanced Manufacturing Institute – Tesfai Goitom, Director
- California Institute for the Preservation of Jazz – Richard Birkemeier, Director
- Center for Advanced Technology Support for Aerospace Industry – Hamid Hefazi, Director
- Center for the Advancement of Philosophy in the Schools – Sara Goering, Director
- Center for Asian Pacific American Studies – John Tsuchida, Director
- Center for Behavioral Research and Services – Dennis G. Fisher, Director
- Center for Career Studies – Paul Bott, Director
- Center for Collaboration in Education – Kay Goddard, Director
- Center for Commercial Deployment of Transportation Technologies – Stanley Wheatley, Director
- Center for Criminal Justice Research and Training – Arthur Basile, Director
- Center for Disability Studies and Scholarship – Gail Farmer, Director
- Center for Educational Technology and Learning – Robert Berdan, Director
- Center for Electronic Design Automation – Sandra Cynar, Director
- Center for European Studies – Jutta Birmele, Director
- Center for Excellence in Construction – Tesfai Goitom, Director
- Center for First Amendment Studies – Craig Smith, Director
- Center for Health Care Innovation – Connie J. Evashwick, Director
- Center for Humanities – Shirley Mangini, Director
- Center for Information Strategies and Technologies – H. Michael Chung, Director
- Center for Innovative Foodservice Technologies – Vala Stults, Director
- Center for International Trade and Transportation – Forrest E. Harding, Director
- Center for Language – Minority Education and Research – David Ramirez, Director
- Center for the Study of Southeast Asia – Arnold Kaminsky, Director
- Center for Successful Aging – Jeanne Bader, Director
- Center for Usability in Design and Assessment – Gerald L. Hanley, Director
- CSULB Center for Entrepreneurship – Allen Grant, Director
- Faculty Center for Professional Development – Mark Wiley, Director
- Graziadio Center for Italian Studies – Carlo Chiarenza, Director
- Hauth Center for Communication Skills – Pat Kearney and Terre Allen, Directors; Scott Allen, Technical Director

- Institute for the Study of Judeo-Christian Origins – Robert H. Eisenman, Director
- Molecular Ecology Institute - Glenn Nagel, Director
- Movement Science Laboratories – John Garhammer, Director
- Physical Therapy Assessment Center – Ray Morris, Director
- Senior University – Donald Lauda, Director

Fine Arts Public Performances and Exhibitions

The College of the Arts presents more than 350 performing and visual arts events each year; many are works by faculty and students; others are performances by world renowned artists. With the support of the Louise Carlson Cultural Fund and the Lillian Newman Komaroff Memorial for the Performing Arts, the College presents an annual performing arts series featuring outstanding professional artists and touring companies.

Performing arts events are held in a number of specially designed facilities: the University Theatre with a proscenium stage and seating for 400; the flexible Studio Theatre, which seats 230 in several different configurations, including theatre-in-the-round; the Players Theatre, with 86 seats; the Gerald R. Daniel Recital Hall, which seats 280; the Martha B. Knoebel Dance Theater, which seats 250; and the Carpenter Performing Arts Center which can seat up to 1162.

The Department of Art presents a weekly schedule of exhibitions in its newly expanded gallery space. Annual events include a New Faculty Exhibition each October, Winter Art Sale during the first week of December, Student Art Exhibition in the University Art Museum each May, and an Alumni Exhibition each June.



Bob Knight Photo

The Department of Dance presents two major performances each year during November and May. The modern dance concerts feature works by CSULB's highly acclaimed dance faculty performed by the faculty and students. Informal concerts featuring choreography by CSULB students are presented each semester.

The Department of Design presents the Senior Design Show, an outstanding exhibition of projects by Interior Design and Industrial Design students each May in the Design Gallery. Design graduate students also present exhibitions throughout the year.

The Department of Music presents more than 100 concerts each year featuring 18 performing groups including the Symphony Orchestra, Wind Symphony, Jazz Ensembles, University Choir, String Quartet, Opera, Forty-Niner Chorus, Men's Chorus, Women's Chorus, Collegium Musicum, and others. During the first week of December, the Choral Studies Program presents the Annual Winter Festival Concert in Long Beach's historic First Congregational Church.

The Department of Theatre Arts produces up to six major productions each year. Acclaimed for powerful acting and innovative sets, the theatre season includes contemporary dramas, classics, and musicals. The California Repertory Company, composed of graduate students pursuing the MFA degree, department faculty, and area professionals, performs five additional plays annually in the new Edison Theatre on Broadway between Pine Avenue and Long Beach Boulevard in downtown Long Beach.

Tickets for all dance, music, theatre arts, and Carpenter Center performances are sold through the CSULB Arts Ticket Office located in the Carpenter Performing Arts Center at 6200 Atherton Avenue. The Arts Ticket Office is open from 11 a.m. to 6 p.m., Monday through Friday, and 12 noon to 4 p.m., Saturdays. A satellite ticket office, located in the southwest corner of the Theatre Arts Building, is open for the convenience of students from 9 a.m. to 11 a.m., Monday through Friday. Ticket offices near the entrances to each of the University's performing arts venues are also open one hour prior to performances. Special faculty, staff, and student rates are available for most performances. Visa and Mastercard are honored. For information or to charge tickets, call the Fine Arts Ticket Office at (562) 985-7000.

University Art Museum

The University Art Museum, one of the units of the College of the Arts, provides the campus and surrounding communities with quality exhibitions in the visual arts on a year-round basis and presents scholarly publications, guest lectures, and educational outreach programs designed to reach a broad general public. Programs that are an integral part of the museum include the Museum Studies Certificate Program, which trains students for careers in museum work; Art to the Schools, which brings educational projects in the visual arts into the classroom; the Summer Institute for Teachers, which helps teachers utilize the resources of museums as part of their curriculum; and Get the Picture, a workshop to acquaint youth with the history and heritage of the City of Long Beach and surrounding regions.

In 1984, the University Art Museum was accredited by the American Association of Museums (American Association of Museums, Suite 200, 1225 Eye St., NW, Washington, DC

20005, phone: 202-289-1818) and thus ranks among the top ten percent of the nation's 6,000-plus museums. It is one of only two nationally accredited art museums in a public university in Southern California. Its exhibitions and collections, including the Monumental Sculpture Collection spread throughout the 322-acre campus, have brought the University and Long Beach area recognition from both the professional art community and an international public. The Museum has an active community membership program which offers special events, museum tours, and international travel opportunities planned exclusively for museum members. All students are invited to join ArtPartners, the student and young professional group affiliated with the University Art Museum. For information about University Art Museum activities, call (562) 985-5761.

The Earl Burns Miller Japanese Garden

Beauty, simplicity, harmony, and peace are all expressed in a traditional Japanese garden. California State University, Long Beach and the community have been enriched by the Earl Burns Miller Japanese Garden, which provides a setting to experience these important qualities.

Mrs. Loraine Miller Collins' appreciation of Japanese culture is reflected in the planning for the garden. The detailed design was careful work of Long Beach landscape architect Edward R. Lovell, whose visits to Japan and a number of its gardens enhanced the project. The Japanese stone sculptures were personally selected by Mrs. Collins, as were the bonsai pines and the furnishings for the teahouse.

The natural effects of the garden design are an expression of the Japanese attitude of respect and love for all nature, a valuable heritage which has been continued. Everything in a Japanese garden has significance: the moss-covered rocks, the brilliant colors of the azaleas, the cascading water, the gracefulness of the forms of the trees, the movement of the colorful koi in the lake. Placement of plants and rocks are all based on asymmetry and rhythm. Every element is part of an overall composition which provides for a delightful sense of peace and harmony.

A unique aspect of the garden is that it has been designed to encourage access by the physically disabled.

The Forty-Niner Shops

The Forty-Niner Shops, an auxiliary organization, enhances and supports the educational process of CSULB by providing goods and services at reasonable and competitive prices. The Forty-Niner Shops, Inc. operates the University Bookstore, Campus Copy Center, the University Dining Plaza, and a variety of food and refreshment stations across the campus. The Forty-Niner Shops, Inc. is a nonprofit corporation which has faculty, student, staff and administrative representation on its Board of Directors.

The University Bookstore stocks textbooks, general and reference books, school supplies, clothing gifts, computer hardware, software and supplies. Services offered include ATM services, bus passes, debit cards, gift certificates, check cashing and the sale of money orders and stamps.

The Campus Copy Center offers copying (including color), duplicating, offset printing, book and report binding, transparencies, faxing and shipping. Self service copiers are available for your copying needs at the Main Library, North

Campus Center, Bookstore Convenience Store, College of Business, University Dining Plaza, the Outpost, and the Student Career Development Center.

The University Dining Services includes the Residence Dining Halls and the University Dining Plaza which includes the A La Mode, Center Court, the Nugget, and the Chartroom featuring a wide variety of foods. Catering services are available for campus functions. The satellite food operations consist of the Hot Dog Carts, vending machines, The Outpost (located near the College of Engineering), and Pyramid Concessions.

President's Scholars Program

Donations are sought to endow the President's Scholars Program. The President's Scholars Program at CSULB affords qualifying valedictorians and National Merit finalists from accredited California high schools an exceptional scholarship package. The elements of this package include full payment of the State University Fee and other student fees, an annual book allowance, paid housing in campus residence halls, priority registration, personalized academic advising, parking, and e-mail and internet access. The scholarship for valedictorians is valued at approximately \$25,000 over four years and for National Merit Scholars approximately \$35,000 over four years. The scholarship is renewable annually based on maintenance of satisfactory academic progress.

University Relations and Development

The Division of University Relations and Development serves as the primary contact with the University's alumni, friends, and community supporters. It's mission is to support the University's position as a flagship institution for excellence in teaching, research, and service by developing private support from individuals, corporations, and foundations. The activities of University Relations and Development include alumni relations, corporate relations, college-based development, estate planning and gifts, KKJZ radio, major gifts, media relations, public affairs, and publications. Each year, millions of dollars are given to support and further the educational mission of the University.

Alumni Association

The CSULB Alumni Association is the link between the University and its more than 165,000 alumni. The Association develops social, educational and recreational programs that bring alumni back to campus.

All former students who attended at least one semester at CSULB are considered alumni and are eligible to join the Alumni Association. Graduates and credential recipients can join by completing an enrollment card and paying a one-time \$25.00 fee; non-graduates, including employees and friends of CSULB, may join as associate members for a yearly fee.

Alumni volunteers assist on Alumni Association committees helping to plan Homecoming festivities, commencement, hospitality center, the summer Concerts in the Grove series, and other events.

Members of the Alumni Association receive a benefit package that includes library privileges at all CSU institutions (there are restrictions on computer usage), on-campus assistance at the Learning Assistance Center at no extra charge, the Career Development Center for a yearly fee, an Associa-

tion credit card, a hotel/motel discount program, and access to membership in health insurance programs. Also available to members are the semi-annual Alumni Calendar of Special Events; the CSULB Review publication; University Student Union privileges; and discounts on some CSULB theater performances, athletics events and local attractions.

For more information on Alumni Association services call the Alumni Relations Office at (562) 985-5252.

The Annual Fund

Alumni actively and generously support the University through the Annual Fund. Over 55,000 alumni, parents, and friends are contacted annually to support University activities. The majority of donations are undesignated and are used to meet the most critical needs of the University. Some donors prefer to designate their gifts to their departments or colleges.

Parents' Fund

The Parents' Fund was established to give parents the opportunity to support the University. Parents of currently enrolled and graduated students are contacted yearly by the Annual Fund. The willingness of parents to pledge financial support to the University is a confirmation that CSULB provides an excellent educational environment for the students it serves.

Senior Gift Campaign

Every graduating senior is contacted near graduation to initiate a pledge in support of the campus. Seniors are asked to donate \$100 to purchase a brick to be permanently placed in the Alumni Brick Plaza. Gifts of \$99 or less are designated to the Annual Fund to be used for essential campus needs. Seniors have proven to be generous and loyal donors to the University.

Major Gifts and Deferred Giving

The Office of University Relations and Development works with individual and corporate donors in securing current and deferred gifts. Major named gifts on campus include such legacies as the Isabel Patterson Child Development Center, the Earl Burns Miller Japanese Garden, the Carpenter Performing Arts Center, and the Martha B. Knoebel Dance Theater.

Endowed scholarships honoring individuals and families have been established in all areas of the University. Many individuals have included CSULB in their wills by providing for scholarships and faculty development. The University can also accept the transfer of securities, real property, personal libraries, private collections, works of art, and musical instruments as gifts to enhance educational quality.

Major gifts may serve restricted purposes in accordance with the donor's designation, or their use may be left to the discretion of the President of the University.

The Academic Corporate Council

The Academic Corporate Council consists of 25 corporate senior executives who provide counsel to the University in the creation of corporate partnerships and serve as advocates and supporters of the University in the community. Each company donates \$5,000 annually to support the President's Scholars Program.

The President's Associates

The President's Associates is composed of more than 200 alumni, community leaders, parents, and friends whose financial support significantly enhances the quality of education at CSULB.

Each member contributes unrestricted tax deductible gifts of \$1,250 (or more) per year, which are pooled with other charitable donations to fund a wide range of top-priority projects such as the President's Scholars Program.

For additional information about donor opportunities contact the Vice President for University Relations and Development, (562) 985-5197.

KKJZ-FM 88 Public Radio

FM88/KKJZ (88.1 on the FM dial), a noncommercial radio station, is licensed to the California State University, Long Beach Foundation. KKJZ's primary signal coverage is the southern portion of the Los Angeles basin with secondary coverage to most of Los Angeles and Orange Counties. It has a potential audience of 2,000,000.

The station is on the air 24 hours per day with a program format of jazz, information, and public affairs. KKJZ provides professional learning opportunities for CSULB students, including a unique opportunity for students in the Film and Electronic Arts and Journalism departments to gain experience in a full-time, professional radio station with direct supervision by faculty members and industry professionals. KKJZ provides additional learning experiences for students in marketing, graphic design, industrial design, and public relations. FM 88 is a listener-supported radio station, funded by a combination of institutional, governmental, corporate, foundation, and private contributions.

The Community Service Learning Center (CSLC)

The Community Service Learning Center was established in January of 1998 to institutionalize service learning at CSULB. Service Learning is a teaching method that allows students to see and experience the relationship between theory and practice; integrates and enhances both community service and academic instruction; engages students in responsible and challenging community service; and emphasizes active learning in different environments. Its mission is to develop awareness, understanding, and commitment to service learning by creating a physical and virtual resource center that facilitates interactions between faculty, graduate and undergraduate students, student services staff, and community partners.

The CSLC works actively to serve educational institutions, government and non-governmental organizations, community agencies, and the CSULB campus community by organizing educational and training tools to aid the development and implementation of service learning activities across disciplines. The center works with faculty to support student

learning objectives, as well as developing successful approaches to establish service learning teaching strategies through existing networks, mentors, and resources. The Center is a member of a growing national community that appreciates service learning as an academically effective and socially beneficial pedagogy and therefore supports exploration in service learning through student theses and faculty research. The CSLC actively participates in campus, system, statewide, and national movements to promote service learning as a means for social and intellectual development.

The CSLC's motto of "shared service, shared learning, shared vision, shared mission" reflects its intent of assisting in the development of a socially aware and advanced forum for intellectual growth. CSULB faculty, staff, students, and administration have shown their support for this intent by including service learning in each of the following university documents: the CSULB Strategic Plan, the Dean's Multi-year Priority Plan, Cornerstones, the CSU Strategic Plan for Service Learning, and the General Education Revitalization Plan.

University Foundation

The California State University, Long Beach Foundation is a non-profit, tax-exempt corporation organized to administer grants and contracts for research and other activities related to the University's programs. On behalf of the University, the Foundation also accepts donations, gifts, and bequests for University-related use, and provides tax-deductible advantage to the

donor.

Research and other activities involving the Foundation are related directly to academic programs. They involve substantial interaction between faculty, staff, and students.

Donations, gifts, and bequests provide a significant addition to the accomplishments of the University. Public funds provide support for most of the instructional and instructional-related activities and facilities.

Counseling and consulting services regarding charitable donations are available to potential donors. Information can be secured from the Vice President for University Relations and Development (562) 985-5197, or by addressing a letter to the California State University, Long Beach Foundation, a 501(c)(3), non-profit corporation recognized by the Internal Revenue Service.

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. Dorothy Abrahamse, Dean, College of Liberal Arts.

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.

Other societies may limit membership to particular academic areas. Among these organizations at California State University, Long Beach are the following:

- Beta Alpha Psi (Accounting) — National scholastic fraternity to give recognition to excellence in the field of accounting.
- Beta Gamma Sigma (Business Administration) — National honorary business society to recognize superior academic performance.
- Chi 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.
- Eta Kappa Nu (Electrical Engineering) — National honor society furthering area interests and promoting scholarship. GPA requirements for seniors 2.8, for juniors 3.0.
- Kappa Delta Pi (National honor society for teachers) — encourages high professional, intellectual, and personal standards. Recognizes outstanding contributions to education.
- Kappa Tau Alpha — National honor society that recognizes academic excellence and promotes scholarship in journalism and mass communication.
- Omicron Nu (Family and Consumer Sciences) — National honor society recognizing superior scholarship and promoting leadership and research in the field of Family and Consumer Sciences.
- Phi Alpha (Social Work) — National honor society to improve the goals of social work on campus. GPA requirement 3.0.
- 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 Beta Delta (International Education) — National society, founded at CSULB, recognizes students from all disciplines with high GPAs and extensive involvement in international education or international studies.
- 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 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.
- Phi Alpha Alpha (Public Administration) — National society to encourage scholarship among students of public administration.
- Phi Sigma Tau (Philosophy) — National honor society for students with a strong undergraduate concentration in philosophy.
- Pi Kappa Lambda (Music) — National honor society for scholastic achievement in music.

- Pi Lambda Theta (Education) — National organization for undergraduate and graduate students. Purpose is to maintain high standards of scholarship and preparation for teaching.
- Pi Mu Epsilon (Mathematics) — National honor society recognizing distinction in mathematics.
- Pi Sigma Alpha (Political Science) — National honor 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 Theta Tau (Nursing) — International honor society recognizing superior scholastic achievement, leadership, and community service in nursing.
- Sigma Tau Delta (English) — National honor society conferring distinction for high achievement in the study of English language and literature.
- Sigma Xi (Science) — National honor society.
- Tau Beta Pi (Engineering) — National honor society recognizing engineering students for academic achievement and participation in activities. Members are elected from top 20 percent of the senior and top 12 percent of the junior class.

WOMEN'S STUDIES

College of Liberal Arts

Department Chair

Elyse Blankley

Office

Faculty Office (FO) 2, Room 226

Telephone

(562) 985-4839

FAX

(562) 985-1868

Faculty

Professors

Elyse Blankley (Women's Studies and English)

Norma Chinchilla (Women's Studies and Sociology)

Wendy Griffin (Women's Studies)

Patricia Rozee (Psychology and Women's Studies)

Toni Stanton (Anatomy/Physiology and Women's Studies)

Assistant Professors

Angela Bowen (Women's Studies)

Kathryn McMahon (Women's Studies and International Studies)

Eve Oishi (Women's Studies)

Maythee Rojas (Women's Studies)

Elizabeth Philipose (Women's Studies)

Affiliated Faculty

Xiaolan Bao (History)

Houri Berberian (History)

Mary Caputi (Political Science)

Patricia Cleary (History)

Linda Espana-Maram (Asian and Asian American Studies)

Jayne Howell (Anthropology)

Patricia-Anne Johnson (Black Studies)

Susan Luevano (Library)

Shirley Mangini (Romance, German, Russian Languages and Literatures)

Claire Martin (Romance, German, Russian Languages and Literatures)

Britt Rios-Ellis (Health Science)

Anna Sandoval (Chicano and Latino Studies)

Sharon Sievers (History)

Kristine Zentgraf (Sociology)

View the CSU, Long Beach *Catalog* on-line at www.csulb.edu by clicking on "Academics" and then "CSULB Catalog."

It is the goal of the Women's Studies Department to provide for students, the University, and the community an intellectual context from which it is possible to study the experience of women. By definition, this enterprise crosses disciplinary and cultural lines; it means that we are in the University not only to fill in gaps and to facilitate the development of coherent bodies of knowledge about women in established disciplines, but that we represent a core of emerging knowledge that is growing into a new discipline.

Women's Studies seeks to equip students with the knowledge, skills, and perception necessary to their realization of the fullest range of options available to them as human beings. We want to provide and encourage contexts conducive to academic excellence and sensitive to academic freedom that will assist students in 1) the reexamining of traditional ideas about women and men in cultures characterized by patterns of sex-role stereotyping; 2) acquiring an understanding of the history and contributions of women of varying social, racial, and ethnic backgrounds; 3) developing the analytical tools required to understand and appreciate the implications of the last three decades of feminist theory and research; and 4) preparing for a variety of vocations which increasingly demand knowledge about women's experience.

Women's Studies, in its own department and through courses in other departments and disciplines, offers the University the intellectual excitement inherent in the development of a new discipline, and a humanistic perspective from which to view the accumulated knowledge of other disciplines, particularly their assumptions about women, both as actors and subjects. Women's Studies encourages the development of research and curriculum related to women in other disciplines and departments throughout the University. We also provide information and advising for students and other members of the University community on the subject of women and women's issues.

The Women's Studies Department offers a major and minor. Students may also graduate with a B.A. in Inter-disciplinary Studies that has Women's Studies as one of its disciplines. CSULB also offers a Special Major at the graduate level through which students may design a major combining Women's Studies with another discipline. Designated Women's Studies courses may be used to fulfill the Social Science (Category II) and other General Education requirements, as well as I.C. and H.D. requirements. For additional information and advice relative to these programs, or ways in which to combine Women's Studies with another Major or Concentration, please consult the Department Office or the Undergraduate Advisor.

Bachelor of Arts in Women's Studies (code W/STBA01) (120 units)

Requirements

A total of 45 units will be required for the Women's Studies major. Courses cannot be counted for more than one category within the major. Requirements include 6 lower division units to include W/ST 101 and W/ST 102; 39 upper division units distributed among the following categories:

Core Requirements

Theory and Methodology - total 12 units.

Six units to include: W/ST 300 and 415;

One of the following for three units: W/ST 340 or 392;

One of the following for three units: W/ST 314, 365I or 382.

U.S. and Global Ethnic/Gender Diversity - total 6 units:

W/ST 318I and 401I

Women's History - total 3 units: W/ST 485A or 485B

Senior Capstone Seminar - total 3 units: W/ST 495

Electives (15 units)

To include 9 units from one of the following clusters and a total of six units from one or both of the other clusters.

Clusters

Feminist Aesthetics and Cultural Studies

This cluster focuses on the study of art and culture both as sites of women's theoretical and political work and as sources of the construction and representation of women's identities. The courses in this cluster examine forms of women's own self-expression, such as literature, philosophy, theory, and cinema, as well as placed in culture - such as language, art, popular culture, religion or urban space - through which societal ideas about women have historically been created and maintained.

W/ST 314, 315, 316 (FEA 317), 319 (AIS, ASAM, B/ST, CHLS), 320 (CHLS 415), 340, 356, 365I, 381 (ASAM, HIST), 382 (ENGL), 384 (HIST 338), 402 (POSC401), 406A (A/ST, HIST), 406B (A/ST, HIST), 410, 420, 425, 432, 441, 442, 455 (PHIL), 475 (ANTH 475, LING 470), W/ST 490 (depending on topic and with prior approval of the Women's Studies advisor); ENGL 384.

Social Change and Social Policy

The courses in this cluster address the role of women within the legal, economic and political structures of our society. Whether they are social policy makers or the ones affected by the distribution of power, women have always played a central role in all of the institutions and practices that make up our society. This cluster examines women's historical and contemporary place within religion; law; science; labor; economics; environmentalism; health care; cities; families; structures of race, class, and sexuality; and political activism.

W/ST 307I, 308, 309I (NSCI), 314, 315, 319 (AIS, ASAM, B/ST, CHLS), 325 (SOC), 338I, 340, 350, 356, 381 (ASAM, HIST), 384 (HIST 338), 402 (POSC 401), 406A (A/ST, HIST), 406B (A/ST, HIST), 410, 420, 424, 425, 430, 432, 440, 485A (HIST), 485B (HIST); W/ST 490 (depending on topic and with prior approval of the Women's Studies advisor); ANTH 351; COMM 412; HDEV 320; PSY 110, 200, 354; SOC 200, 250, 346, 454, 455; SW 491 (I/ST).

U.S. and Global Ethnic/Gender Diversity

This cluster focuses on the experience of women internationally and among diverse communities and cultures in the United States. Recognizing that women's experiences are defined as much by their positioning within global political, social, and economic systems as by their individual racial, ethnic, religious, class, or sexual identity, this cluster offers a comparative look at both the individual and the global as-

pects of women's lives. The courses in this cluster study the diversity of histories, experiences, and cultures within the United States as well as their historical and political connections to women around the globe.

W/ST 307I, 315, 319 (AIS, ASAM, B/ST, CHLS), 320 (CHLS 415), 340, 356, 381 (ASAM, HIST), 384 (HIST 338), 406A (A/ST, HIST), 406B (A/ST, HIST), 424, 449, W/ST 490 (depending on topic and with prior approval of the Women's Studies advisor); SOC 346.

Note: Courses cross listed with any of the above courses are accepted as substitutes.

Minor in Women's Studies (code W/STUM01)

Requirements

A minimum of 21 units are required for the Women's Studies minor, to be selected with approval of a Women's Studies advisor. Courses cannot be counted for more than one category within the minor and must be selected from among the following categories:

Lower Division - 3 units: W/ST 101 or 102

Upper Division - 18 units:

Take each of the following for three units each: W/ST 300, 318I, 401I

Take one of the following for three units: W/ST 340 or 392

Take one of the following for three units: W/ST 485A or 485B

Take three additional units from any cluster.

Courses (W/ST)

Lower Division

101. Women and Their Bodies (3)

Prerequisite or Corequisite: One GE Foundation course. An introduction to the rapidly expanding body of literature and ideas related to the biology and sexuality of women.

102. Women In Contemporary Society (3)

Prerequisite or Corequisite: One GE Foundation course. An introduction to some of the basic questions raised by the contemporary feminist movement relating to the social, political, and economic status of women.

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. Principles of Feminism (3)

Prerequisites: ENGL 100 and upper division status or by consent of instructor. An 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).

307I. U.S. Women and the Economy: Money, Sex, and Power (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations courses, and upper-division standing. This course is an interdisciplinary examination of assumptions about the economic roles of women; analysis of the sexual division of labor, domestic work, and its ideology; women as wage workers; women and development, U.S. women and the economy. Special focus will be on the origin, migration, settlement, and economic patterns of, problems facing, and attitudes about women from major ethnic and racial groups in the United States.

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.

309I. Women in Science (3)

Prerequisites: Completion of the G.E. Foundation, upper division standing, six units of General Education science courses and permission of instructor. The purpose of this course is to increase awareness of the accomplishments of women in natural science, engineering, and mathematics in their socio-historical context and the obstacles that have precluded easy access to careers for women in these areas. Specific topics encompass the historical roles of women in science, contributions of celebrated women scientists, and women scientists who made significant contributions but were ignored or devalued by their scientific peers, and the nature of the research problems they pursued including methodology and outcomes. Other key issues include stereotypes and images of women in science; cultural, societal, and institutional obstacles to the entry and success of women in science; and ways of overcoming these obstacles. Disciplines included in this course are science, history, and sociology. Letter grade only (A-F). Same course as NSCI 309I. (Lec 3 hrs.)

314. Women Narrate Their Lives (3)

Study of the lives of a cross-section of Women in the U.S. from colonial era to the present based on biographical and autobiographical sources.

315. Black Women in America (3)

Prerequisites: ENGL 100 and upper division status or by consent of instructor. An examination of American black women from the eighteenth century to the present. Taught from an 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.

318I. U.S. Women of Color (3)

Prerequisites: ENGL 100 and upper division standing or by consent of instructor. Examines the condition and position, the experiences and accomplishments of women of color in the United States. Explores the social construction of race and gender as they intertwine within the institutional structures of the US, implications of the interactions between and among women of color, both within and across distinct ethnic/cultural groups and the effect of "whiteness" upon communities of color. Covers historical and contemporary issues using theoretical essays, personal narratives, historical documents, literature, and media images.

319. The Ethnic Experience in the U.S. (3)

An 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. (Lecture/Discussion.) Same course as AIS 319, ASAM 319, B/ST 319, CHLS 319.

320. Latina Women in the United States (3)

Prerequisite: Junior standing or permission of instructor. This course will examine the cultural, political, economic, and sexual forces that mold Latina women. The first section of the course will focus on cultural stereotypes and responses to these stereotypes by Latina women scholars. The second section of the course will focus on Latina class differences and the politics of race. This will provide an overview of the contemporary public policy issues affecting Latinas and the broader Latino community. The contradictions that are identified in this course segment will be juxtaposed against selected African American perspectives to identify areas of symmetry as well as areas of divergence in the domain of political strategizing for political reform and Latina empowerment. The last section of the course will address issues of gender identity and sexuality that challenge, undermine, and strengthen the position of Latina women in the greater society. Same Course as CHLS 415.

325. Sociology of Women (3)

Socio-cultural position of women; a brief history of women's role and status; societal attitudes toward women's place in society, Same course as SOC 325.

338I. Women in Sport (3)

Prerequisites: Completion of GE Foundation requirements, one or more Explorations 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. Same course as KPE 338I.

340. Community Service Learning in Women's Issues (3)

Prerequisites: Upper division standing and two prior women's studies courses, or permission of instructor. This course will allow students the opportunity to practice the theories and knowledge they have gained as a result of studying women's issues. Students will work in the community with agencies addressing women's issues.

350. Feminist Issues in Mental Health (3)

Introduces issues related to the mental health of women, from historical, anthropological, sociological and psychological perspectives. Emphasis is on the relationship of power, sexism, sex role socialization and gender stereotypes to mental health.

356. Women and Sexual Orientation: Lesbianism (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".

365I. Images of Women in Popular Culture (3)

Prerequisites: Completion of 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.

381. Asian American Women (3)

This course will explore the largely unwritten history of Asian American women. Using an inter-disciplinary perspective, we will look at not only secondary sources but also autobiographical, literary, and journalistic writings; oral histories, diaries, anthropological studies, psychological/clinical reports, and film to reconstruct the lives of Asian American women. We will examine how having been burdened by the triple oppression of gender, race, and class, Asian American women have been actively pursuing equality and dignity. Same course as ASAM 381 and HIST 381.

382. Women and Literature (3)

Images of Women in English literature; works in various genres that present the range and complexity of women's lives; feminist critical approaches and bibliographic resources. Specific content will vary. (Lecture-Discussion) Same course as ENGL 382.

384. European Women's History (3)

European Women's History is an upper division course which investigates how European history has impacted on women and how women and women's issues have shaped historical events. Issues that the course will address include: the nature, methodology and approaches of women's history; the significance of the Enlightenment and French Revolution for women and the role women played in these events; the work women of all classes did, and how industrialization affected the position of women; women's role in and their relationship to 19th and 20th century wars and revolutions; women's health and sexuality; the role of the women in the family; women's socialization and education; the "Women Question" and attempts to remedy women's position; recent feminist theory; and a speculative look at the future of European women. Same course as HIST 338.

392. Feminist Pedagogy: Peer Facilitation (3)

Prerequisite: Consent of Instructor. Peer facilitation of small group discussion, teaching assistance and other assignments directed by a supervising faculty member, supplemented by seminar, reading and journal writing. May be repeated for a maximum of six units. Letter grade only (A-F).

394. Middle Eastern Women (3)

Prerequisites: Upper division status. In this course we will explore a wide range of roles played by Middle Eastern women throughout history and seek to understand the multi-faceted thoughts and activities of women. By studying many different kinds of sources, both secondary and primary, including memoirs, biographies, traveler accounts, poetry, and film, we will look at women from different geographical and class backgrounds and discuss the most important issues related to women and gender in Middle Eastern history. This course will proceed in chronological order but will also have a strong thematic approach. While the focus of this course is on Muslim women, who are the majority in the region, the experience of minority women will also be addressed. Same as HIST 394.

401I. Women in Global Perspective (3)

Prerequisites: completion of Foundation courses, one or more Explorations course, and upper-division standing. Comparison of how different social and cultural systems have affected gender ideologies and gender practices and how women's social, cultural, economic, and political roles have changed over time. The emphasis is on pre-industrial and contemporary Third World societies where the majority of the world's female population lives. Draws on recent anthropological, sociological, historical, political science and women's studies research to understand factors related to gender inequality and women's empowerment.

402. Women in Political Theory (3)

Prerequisite: Students must have completed one course in either political science or women's studies. Differential treatment of women and men in western political theories, including femininity, power, rationality and the role of the women in the family. Classic and contemporary texts. Same course as POSC 401.

406. Asian Women (3)

Historical experience of women in Asia, with emphasis on Chinese and Japanese societies; links with the experience of Asian-American women.

406A. Asian Women: East and Northeast Asia (3)

Prerequisite: Upper division status. In this course, we will explore the diverse experiences of women in China, Japan, and Korea. By studying different kinds of sources, including memoirs, biographies, literature, film, as well as scholarly works by or about North and Northeast Asian women, we will examine how gender was historically constructed and discuss about women's various forms of resistance in this area. This course will proceed both chronologically and thematically. Major issues to be addressed include the discrepancy between gender norms and reality, women's agency in social change, women and the state, and the complex relationship between feminism and nationalism. Asian American women's experiences will also be discussed at relevant places throughout the course. At the end of the course, students are encouraged to critically reflect on some theoretical issues that have been discussed in the scholarship on women's history in general and North and Northeast Asian women's history in particular. Same courses as A/ST 406A and HIST 406A.

406B Asian Women: South and Southeast Asia (3)

An introductory course on the experiences of women in two of the most ethnically, culturally, and politically diverse regions of the world: South and Southeast Asia. This course explores the diversity of women's experience in these two regions during the colonial and post-colonial periods. Using different kinds of sources, including memoirs, biography, literature, and film, as well as monographs or about South and Southeast Asian women, we will examine how gender is historically constructed in the two regions, and how women have exercised agency throughout history. This course will proceed both chronologically and thematically. Major issues to be discussed include women's agency in social change; gender as a contentious site of political discourse; the impact of colonization on women, and women's various forms of resistance. Letter grade only (A-F). Same course as A/ST 406B and HIST406B.

410. Women, Religion, and Spirituality (3)

Prerequisites: ENGL 100 and upper division status, or by consent of instructor. A study of the socio-religious construction of the

"nature of woman" from prehistory to present day. Analysis of women in traditional religions and new religious movements, in women's religions around the world, and the rise of fundamentalisms.

415. Feminist Theory (3)

Prerequisites: W/ST 300 or consent of instructor. Examines contemporary feminist theoretical perspectives. Discussion of primary sources from a number of positions, including liberal, socialist, poststructural, "third world", postmodernist and postcolonial feminisms. Issues include gender and sexuality, race, ethnicity, class and nationality. Focus on discussion of current debates which cross disciplinary boundaries. Active student participation required. Letter grade only (A-F).

420. Mothers and Daughters (3)

Analyzes how mothering is "reproduced" in daughters, and why/how patriarchal culture regulates the mother/daughter bond. Readings are primarily literary texts, with theoretical materials drawn from an interdisciplinary framework. Special emphasis is given to the shaping of the mother/daughter relationship in a range of historical, racial, class and sexual contexts.

424. Women and Environmental Justice (3)

Prerequisites: Completion of Foundation curriculum and upper division status. This class examines environmental justice by exploring the complex relationship between women and nature and how both of these have been treated through 1) socio-religious ideologies, 2) the socio-economic underpinnings and environmental impact of international development, 3) the consequences to and reactions of women to environmental pollution around the world, and 4) the practical meaning of environmental consumption and waste in industrialized nations. The global approach highlights leading Third World ecofeminists, who are changing the terms of the discourse on the environment and offer a critique of the gendered division of labor in both the production and reproduction processes that differs dramatically from other perspectives on the environment.

425. Women and Power (3)

Prerequisites: A previous W/ST class (101, 102, or 300) and upper division status or consent of instructor. Examination of the ways power has been defined, obtained, shaped and maintained, and the 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 the urban environment, both literally and imaginatively. Special attention paid to the 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.

440. Issues in Women's Health (3)

Prerequisites: Upper division status; ENGL 100; and W/ST 101, BIOL 205, BIOL 207, or BIOL 211B. The purpose of this course is to help women attain and/or maintain an optimum state of health and to become discerning consumers of the health care industry. Fundamentals of normal physiology and natural defense mechanisms will be covered in order to promote understanding of the cause, prevention and treatment of various conditions or disorders, including reproductive organ dysfunction, menstrual disorders, sexually-transmitted disease, infertility, complications of pregnancy, osteoporosis, cancer, and cardiovascular disease. The importance of lifestyle habits (diet, exercise, stress, etc.) will be emphasized throughout. Other topics will include gender differences in health and mortality, the history and current status of research on women's health issues, and the current political climate regarding women's reproductive rights.

441. Women Writers of the Harlem Renaissance (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor. Explores the literature and lives of women authors of the American Harlem Renaissance Period of the 1920s. Examines the critical reception, relative obscurity, and current re-discovery of these writers. Utilizes theoretical essays, biographical narratives, historical documents, and media images. Same course as ENGL 441.

442. Sexing Chicana Literature (3)

Prerequisites: ENGL 100 and upper division status or consent of instructor. Studies how Chicana authors explore intersecting issues of race, class, and gender. Focuses on the use of sexuality in Chicana writing, particularly with regard to cultural and literary stereotypes vs. experience and aesthetic practice. Themes will include desire, identity, empowerment through "traditional" roles, violence and the body, and other issues framed by historic and symbolic representations in Chicana literature. Same as ENGL 442.

449. Feminism and International Human Rights (3)

Prerequisite: Upper division status or consent of instructor. Reviews feminist debates on racism and colonialism, with specific reference to contemporary international human rights. Topics to be discussed include: colonialism and knowledge; liberalism and modernity; feminism and international relations; international women's rights movements; discourses of 'traditional practices'; hegemonic feminism and power. We will consider current international women's rights issues and critiques of the ways in which veiling, genital surgeries, gender-based persecution, violence against women in war, sati, dowry murders, migration and trafficking, AIDS and women, and other related topics have been taken up by western feminists.

455. Philosophical Perspectives on Sex and Love (3)

Prerequisite: 6 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.

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 and LING 470. Letter grade only (A-F).

485A. History of Women in the U.S. Early Period (3)

Provides a survey of the roles and activities of American women from colonial period to 1850; variety of female life experiences; slavery, immigration; relationships to the family, economy and political movements. (Lecture) Same course as HIST 485A.

485B. History of Women in the U.S. Since 1850 (3)

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. (Lecture) Same course as HIST 485B.

490. Special Topics (1-3)

Topics of current interest in women's studies, selected for intensive study. May be repeated with different topics for a maximum of six units. Same course as AIS 490.

490K. Women and War: Voices of Resistance

An interdisciplinary course which studies the autobiographical testimonies of women who have experienced war and its aftermath and how their voices have been interpreted in recent years. Included are literary, historical, sociological and psychoanalytical considerations of the impact of war on women during World War I and II, the Spanish Civil War, and confrontations in Central and Latin America. Same topic as SPAN 493A, HIST 490F. (Lecture)

491. Special Topics (1-3)**492. Special Topics (1-3)**

Topics of current interest in women's studies, selected for intensive study. May be repeated with different topics for a maximum of six units.

495. Senior Capstone Seminar (3)

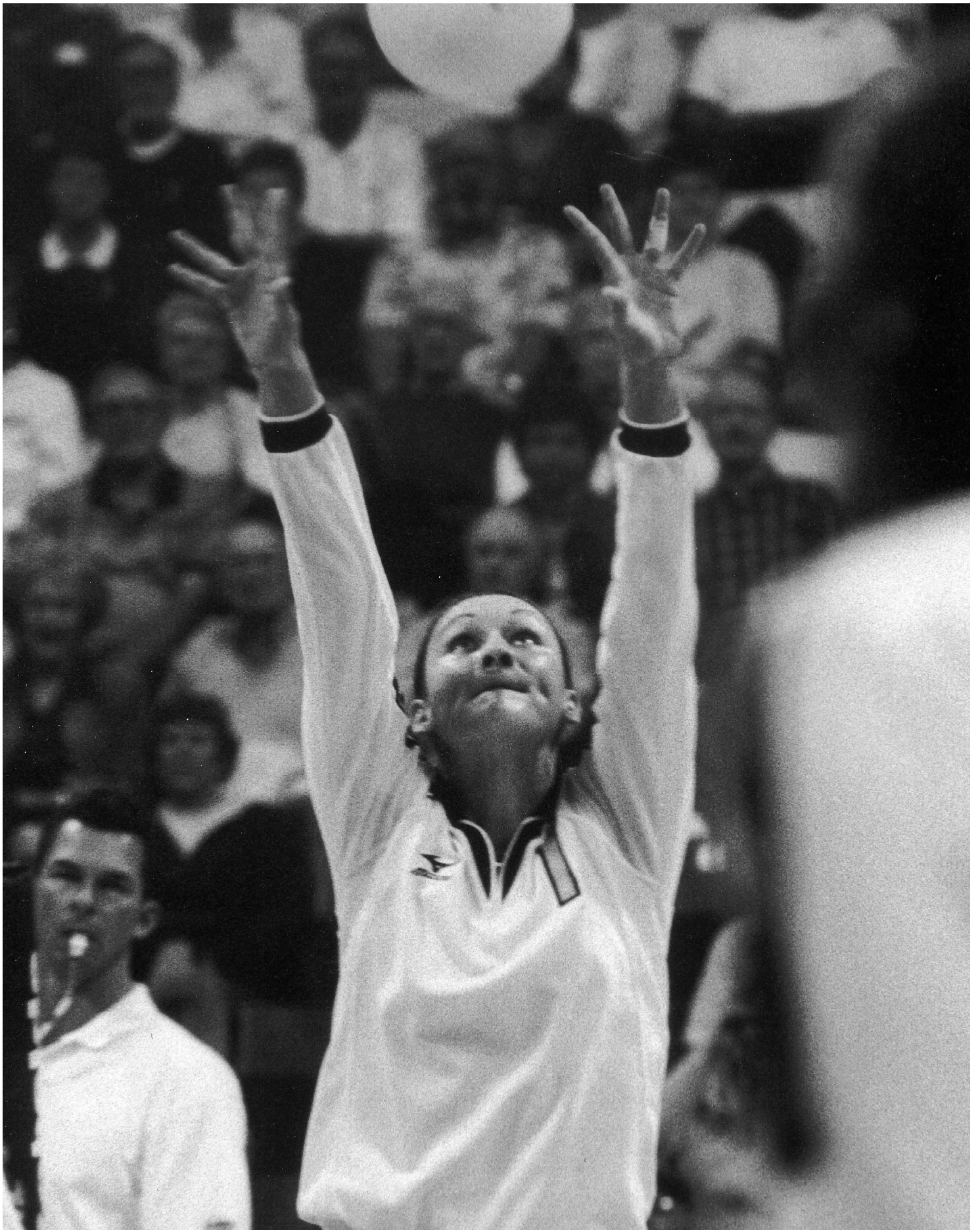
Prerequisites: Open to W/ST majors and minors, or by permission of instructor. Capstone course intended to integrate the multidisciplinary body of knowledge accumulated in the major or minor.

498. Field Work (1-3)

Consent of instructor. Practical experience in campus or community organizations concerned with women's issues. May be repeated for a maximum of six units.

499. Directed Studies (1-3)

Consent of instructor. Independent work in areas of special interest to student and instructor. May be repeated for a maximum of six units.



GENERAL REGULATIONS AND PROCEDURES

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 will 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 which apply to students. This catalog does not constitute a contract or the terms and conditions of a contract between the student and CSULB or the California State University. The relationship of the student to the institution is one governed by statute, rules, and policy adopted by the Legislature, the Trustees, the Chancellor, the President, and their duly authorized designees. Information concerning grievance procedures for students who feel aggrieved in their relationships with the university, its policies, practices, and procedures, or its faculty and staff, may be obtained from Leslie Nix-baker, Director of Employee Relations, Brotman Hall (BH) 303, (562) 985-1742, or from Steve Katz, Director of Judicial Affairs, BH 377, (562) 985-5270.

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 Academic Vice President, 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.

Election of Regulations for Degree Requirements

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 cognizant 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 Academic Advising Center.

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.

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. Please see Educational Leave later in this section.

For all students, a 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."

Academic Calendar

Fall and Spring Semesters: California State University, Long Beach operates on the semester system. Normally, Fall Semester classes begin in late August. 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 the 20th of December. The Spring Semester usually begins in the last week of January and ends in mid-May in time for a five-day final examination period and a week of commencement exercises just before or after Memorial Day.

Extended Education Sessions

Summer Sessions courses are offered during three sessions extending through the months of June, July and August. Winter Session is a three-week session beginning in early January. Instruction is also provided during the fall and spring semesters through University College and Extension Services in various formats including Open University and Special Sessions.

Student Load

Undergraduate students who carry 12 units or more in a fall or spring semester are classified as full-time students. Those who carry fewer than 12 units are part-time students. To be full-time, graduate students must carry at least 9 units.

Maximum unit load	
Graduates	16 units
First Semester Freshmen	17 units
Students on Academic Probation	17 units
All Other Students	18 units
Summer and Winter Sessions	1 unit per week of attendance

Exceptions to these limits may be made only on the basis of proven academic ability and the feasibility of the student's schedule. Permission must be obtained (prior to registration) from appropriate authorities. (Unclassified majors must consult the Academic Advising Center.)

Student Levels	
Freshman	0.1 to 29.9 units
Sophomore	30.0 to 59.9 units
Junior	60.0 to 89.9 units
Senior	90.0 or more units
Postbaccalaureate	holding a baccalaureate or equivalent degree

The faculty recognizes that it is frequently necessary for students to hold part-time positions while attending the University. It advises that good judgment be demonstrated by students enrolling under these conditions. Students whose outside employment could be expected to interfere with the normal unit load should reduce their academic program accordingly. It is suggested that students plan their schedules based on spending three hours time per week for each unit taken. 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.

Veterans should inquire at the Veteran's Affairs Office (BH 226) about unit load requirements for state and federal benefits.

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

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 reason 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.

It is recommended that students with disabilities attempt to modify their schedules, as necessary, to lessen the impact of a disability. However, 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.

Class Attendance

Students are expected to attend classes regularly. Classroom participation is often one of the 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 (as required by Policy Statement 02-12, Grades and Grading Procedures). 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.

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 with Enrollment Services 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 courses may impact upon 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. However, students shall not 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).

Students who expect to be absent from the University for any valid reason, and who have found it difficult to inform their instructors, 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.

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 for every class taught, up to a maximum of four hours. Faculty may account for up to one hour of this expectation through alternative forms of access such as availability by appointment or through e-mail. The faculty member's office hours, phone number, and email contact will be posted by the door and announced in the syllabus.

Visitors to Classes

Only students registered for the class either as regular students or as auditors, the instructor, 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 scheduled beginning of the class session.

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, semester or session offered, and the course description, which includes prerequisites and other restrictions.

An asterisk (*) preceding the course number indicates that the course is acceptable as elective credit for the master's degree.

Course Numbers

Any course numbers less than 100 do not count toward any degree program. However, for purposes of qualifying for financial aid, 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 in the *Schedule of Classes* 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 and 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. Freshmen and Sophomores should not attempt courses with numbers preceded by an asterisk.

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. The "semester or session offered" information is presented as a long-range planning guide. 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. F indicates Fall Semester, S indicates Spring Semester, W indicates Winter Session, and SS indicates Summer Session. The *Schedule of Classes* appropriate to the semester or session in question should be consulted for actual course scheduling information. Courses offered only in alternate years are so designated. Many 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.

Courses offered through Extended Education conferring Continuing Education Unit credit (CEU) carry no degree credit.

Course Subject Abbreviations

The following course subject abbreviations are employed in the *CSULB Catalog*, the *Schedule of Classes*, student study lists, academic planning guides, evaluation materials, and transcripts.

Abbreviation	Definition
ACCT	Accountancy
AH	Art History

AIS	American Indian Studies
ALI	American Language Institute
ALP	American Language Program
AMST	American Studies
ANTH	Anthropology
ART	Art
ARAB	Arabic
ASAM	Asian American Studies
A/ST	Asian Studies
ASTR	Astronomy
BIOL	Biology
B/ST	Black Studies
CBA	College of Business Administration
C D	Communicative Disorders
C E	Civil Engineering
CECS	Computer Engineering and Computer Science
CEM	Construction Engineering Management
CH E	Chemical Engineering
CHEM	Chemistry
CHIN	Chinese
CHLS	Chicano and Latino Studies
C/LA	College of Liberal Arts
CLSC	Classics
C/LT	Comparative Literature
COMM	Communication Studies
COTA	College of the Arts
CRIM	Criminal Justice
C/ST	Computer Studies
DANC	Dance
DESN	Design
ECON	Economics
EDAD	Educational Administration
EDEL	Elementary Education
EDMS	Education Middle School
ED P	Educational Psychology
EDSE	Secondary Education
EDSS	Single-Subject Education
E E	Electrical Engineering
ENGL	English
ENGR	Engineering
EOP	Educational Opportunity Program
ES P	Environmental Science and Policy
E/ST	Environmental Studies
E T	Engineering Technology
ETEC	Educational Technology
FCS	Family and Consumer Sciences
FEA	Film and Electronic Arts
FIN	Finance, Real Estate and Law
FREN	French
GBA	Graduate Business Administration
GEOG	Geography
GEOL	Geology
GERM	German
GERN	Gerontology
GK	Greek
GS	Graduate Studies
HCA	Health Care Administration
HEBW	Hebrew
HDEV	Human Development
HHS	Health and Human Services
HIST	History
HRM	Human Resources Management
H SC	Health Science
INTL	International Education

IS	Information Systems
I/ST	International Studies
ITAL	Italian
JAPN	Japanese
JOUR	Journalism
KOR	Korean
KPE	Kinesiology and Physical Education
LAT	Latin
LI	Library Education
LING	Linguistics
L/ST	Liberal Studies
MGMT	Management
MAE	Mechanical and Aerospace Engineering
MATH	Mathematics
MICR	Microbiology
MKTG	Marketing
M S	Military Science
MSEM	Master of Science Engineering Management
MTED	Mathematics Teaching Education
MUS	Music
NRSG	Nursing
NSCI	Natural Sciences
OCST	Occupational Studies
OSI	Ocean Studies Institute
PHIL	Philosophy
PHSC	Physical Science
PHYS	Physics
POSC	Political Science
PPA	Public Policy and Administration
PSY	Psychology
P T	Physical Therapy
REC	Recreation
RGR	Romance, German, Russian Languages
R/ST	Religious Studies
RUSS	Russian
SAR	Sports, Athletics and Recreation
SCED	Science Education
SOC	Sociology
SPAN	Spanish
S W	Social Work
THEA	Theatre Arts
UNIV	University
UHP	University Honors Program
U/ST	Urban Studies
WPE	Preparation for Writing Proficiency Exam
W/ST	Women's Studies

Academic Credit

Course Credit Units

Each course has a specific credit unit value which is indicated in parentheses following the course title. In typical lecture and discussion classes, the number of course credit units is equal to the number of class hours per week. Thus, in a typical fifteen-week semester a one-unit class meets for a total of fifteen hours during the fifteen weeks while a three unit class will meet forty-five hours during the same period. A typical lecture class may be scheduled to meet once, twice, or three times a week. Any course numbers beginning with zero do not count toward any degree program. However, for purposes of qualifying for financial aid, the unit value assigned to those courses will count for the semester in which those courses were taken.

In other types of instruction, principally laboratories and activities of other kinds, the number of class hours per week is greater than the number of course credit units, depending on the mode of instruction. Courses with variant or mixed modes of instruction are noted in the course description and the *Schedule of Classes*. Summer Session classes require the same total amount of class time, compressed into a six week session.

The instructional "hour" is fifty minutes long, allowing for transit between classes and rest breaks within multi-hour classes. In most classes the student is expected to allow two hours per week of study time beyond class time for each unit of credit. Thus, a three-unit lecture-discussion course normally demands a commitment of nine hours per week averaged over the semester.

Credit for Activity Courses

Activity courses provide practice in areas such as music, physical education and Sports, Athletics, and Recreation. Students may apply to the degree no more than eight units each of activity course credit in music and physical education and no more than four units of activity course credit in SAR to total no more than 20 units in all areas.

Independent Study Courses

Each student enrolled in a supervised independent study, research, or reading course (excluding 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.

Credit for Cross-Listed Courses

Certain interdisciplinary courses are listed in this catalog under more than one department. Normally, students will receive credit for such a cross-listed course in the department under which they register for it. They may, however, have Enrollment Services indicate that this course may be credited to a different department which also lists it, provided that they make this request no later than the end of the semester preceding anticipated graduation.

Repetition of Courses for Satisfactory Grade (Repeat and Delete)

Undergraduate students and postbaccalaureate students who are pursuing a second (or subsequent) baccalaureate degree may repeat, for the purpose of excluding the grade from grade-point determination, an undergraduate course taken at California State University, Long Beach in which a grade of D, F, or U was received. Postbaccalaureate students pursuing credential programs, certificate programs, master's degrees or those who have no specific objective are not eligible for the Repeat and Delete policy.

Eligible students may repeat a course once for the purpose of deleting a grade, without prior departmental approval, if the course was taken both times at CSULB. The deletion is automatically calculated at the end of the semester in which the course was repeated. Although the first grade will remain on

the permanent record, the grade and grade points of the repeated course on the second attempt will be those used in determining the grade-point average and units earned, provided the second grade was C or better.

Students are not prohibited from continuing to repeat a course in which the grade is unsatisfactory (D, F, U), but all grades earned subsequent to the first repeat will remain in the grade-point determination, and the units earned in the course will be applied to the degree only once. While there is no time limit for repeating a course, the student's permanent record may not be altered after a degree has been granted.

If students wish to exclude from grade-point determination a grade of D, F, or U in a course taken at another institution, they may do so by enrolling in an equivalent course at CSULB. A "Notice of Intent to Repeat a Transfer Course" form must be filed with Enrollment Services. The department in which the course is taught must indicate on the form which particular course may be repeated to delete the previous grade. An official transcript from the institution where the original course was taken must accompany the form. Only one repeat is allowed for the purpose of deleting a grade, and the repeated grade and grade points will be used in the overall grade-point determination, provided the second grade was C or better.

A grade received in a course taken at another institution may not be used to delete a grade in an equivalent course taken at CSULB.

Except for upper-division courses in the student's major completed more than ten years prior to graduation, students may not repeat or receive unit credit for courses in which they have already received a CR or a C grade or better.

Repeatable Courses

A student may repeat for additional units or credit toward a baccalaureate or graduate degree any course specified as repeatable in the University Catalog up to the limits specified. Each department determines the unit limits and any other limitations for courses that may be repeated. Except for activity courses, courses which have been specifically designated as repeatable for credit, upper-division courses in an undergraduate student's major completed more than ten years prior to graduation, and courses on a graduate student's program of study taken more than seven years prior to graduation, a student may not take or receive unit credit for a course for which the student has already received a CR or a C grade or better, including a course taken at a high school or another college or university.

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. No more than six semester units in education courses taken in a community college may be applied toward the baccalaureate degree or the professional preparation requirements of a teacher education basic credential program;
3. Individual program regulations for specific transfer limitations should be consulted.
4. 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.
5. 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 transferrable units from community colleges will get subject matter credit for all such courses, but no more than 70 units will count toward graduation.
6. All transferrable units taken at community colleges will count toward computation of the overall grade-point average. All transferrable units in the major taken at community colleges will count toward computation of the overall major grade-point average.

Extension Credit

A maximum of 24 semester units of Extension Credit may be accepted toward a baccalaureate degree. At the option of the appropriate college and department, up to six units of Extension Credit may be applied to a graduate degree. This limit may be increased to nine units in some instances. Extension credit may not be used to fulfill the minimum 30-unit residence requirement.

Open University/Special Session

The Open University program allows enrollment in regular university credit courses from those people who are not currently admitted to and/or registered at CSULB. Enrollment is on a "space available" basis, subject to the approval of the instructor and the department chair concerned.

No more than 24 units of special session course credit earned through Open University or UCES Special Sessions course offerings at CSULB in non-matriculated status may count toward any undergraduate degree requirement. Students are considered in non-matriculated status in terms prior to the term of official admission in the degree granting program and during terms of disqualification from the degree granting program. There is no limit on UCES Special Sessions course credit, including Winter session, applicable to the degree if taken while you are in matriculated status in the degree program.

At the option of the appropriate college and department, up to six units of Open University Special Sessions credit may be applied to a graduate degree. This limit may be increased to nine units in some instances. All units that are applied to a degree are classified as residence credit.

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, subsequently, 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.

Acceleration of University Studies

The University provides several means by which students may accelerate their studies; these are discussed below. Each of the following options may be subject to restrictions and regulations within individual academic programs. Therefore, students interested in any of these options should consult with the Chair of the concerned department.

Advanced Placement

California State University, Long Beach grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement 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.

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 a grade of 5 or higher is determined by the faculty of the appropriate department subsequent to careful review of course syllabi.

For questions or information, please call Enrollment Services at (562) 985-5471 or consult your department.

Unit Credit by Examination

California State University, Long Beach grants unit credit to those students who pass examinations that have been approved for credit system-wide. These are: the CSU English Equivalency Examination; the College Level entrance Program (CLEP) examinations in College Algebra - Trigonometry, Calculus/Elementary Functions, French, General Chemistry, German, and Spanish; the College Entrance Examination Board (C.E.E.B.) Advanced Placement examinations; and the American Chemical Society Cooperative 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 "CR" (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 a grade of "CR." 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. However, not all courses 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 already been received (see department for possibility of course waiver);
3. to remove a grade of "F," "U," "NC";
4. to satisfy the courses required for 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 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.

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 a substitution of courses be indicated on the departmental program planning guide, filed prior to graduation. 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.

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). Requests for waiver of course requirements can be made on an application form available in the department office. 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.

Graduate Credit Earned as a Senior

Graduate credit usually may not be earned in advance of the baccalaureate degree. However, 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, seniors may 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. 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 a "Petition to Earn Graduate Credit in the Senior Year" approved by the departmental graduate advisor and the department chair prior to enrollment.

In those areas in which graduate credit is for a credential only, the petition must be submitted to the appropriate department in the College of Education. Petitions 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 a "Petition to Earn Credit Toward a Bachelor's Degree for a 500-Level Course Taken in the Senior Year" approved by the instructor and department chair before registration in the class(es) is permitted.

Grades and Grading Procedures

Definitions

The following definitions apply to 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.

In addition to the standard grades, the University permits students to select evaluation on a "Credit" or "No Credit" basis. These grades are defined as follows:

"CR/NC" – A "CR" is equivalent to an "A", "B", or "C", and "NC" is equivalent to a "D", "F", or "WU". In two circumstances a grade of "CR" reflects work at the level of "B" or better, and a 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.

There are special regulations and procedures governing the "CR/NC" grading system described later in this policy statement.

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. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the Incomplete. A final 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 reduced to writing by the instructor on a "Requirements for Assigning an Incomplete Grade" form. This form shall include a statement of:

1. all work completed in the course, the grades assigned for that work, and the percentages of the final grade accounted for by each item;
2. the work not completed and the percentage that each uncompleted assignment will count toward the final grade; and
3. the final grade the instructor will assign if the course requirements are not completed within one calendar year, or a shorter period as specified on the form, immediately following the term in which the "I" was assigned, without respect to continuous enrollment of the student during this period.

A copy of the agreement is to be given to the student, a copy is to be retained in the department office, and a copy is to be filed with the Office of Enrollment Services at the

time final grades are submitted. Normally, the student should sign the "Incomplete form." If the student is eligible for an Incomplete, a faculty member may assign an "I" even when the student cannot be present to sign the form. In such a case, the instructor will forward to the student a copy of the form via the department office. When the work agreed upon has been completed and evaluated, a final grade will be assigned by an instructor. If an incomplete is assigned without an incomplete contract attached, or with a contract which is not filled in acceptably, the symbol of "RD" will be assigned to the student. The "Requirements for Assigning an Incomplete Grade" form will be considered unacceptable if:

- A. more than one third of the work remains to be completed, and no justification has been provided;
- B. the work required to complete the course has not been specified;
- C. the faculty member failed to sign the form; or
- D. the percentage fields have not been filled in.

Notice of the missing form, or a copy of the unacceptable form will be sent to the department chair with the request that the chair work with the faculty member to provide the information necessary to assign the grade of incomplete.

"RD" – Report Delayed. This symbol is used exclusively by the Registrar to permit processing of all final grades when the grades for an entire class section have not been reported by the instructor. The symbol does not imply any academic evaluation.

If an instructor fails to report a grade for an individual student, the Registrar will assume that an "I" could not be assigned and so will enter a symbol "WU," discussed below.

"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 grade must await completion of additional work. Re-enrollment is permitted prior to assignment of a final 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 terminal 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 terminal grade.

"W" – 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 CLASSES FROM COURSES WHICH THEY DO NOT INTEND TO COMPLETE. Application for withdrawal from the University or from a class must be officially filed by the student at the Office of enrollment Services

whether the student has ever attended the class or not; otherwise, the student will receive a grade of "U" (unauthorized incomplete) in the course. Application for withdrawal is made at the Office of Enrollment Services.

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. To do this a student must file a Complete Withdrawal Application to drop all classes or a Change of Program Form for a specific class or classes.

2. Withdrawal after the second week of instruction and prior to the final three weeks of instruction:

Withdrawal during this period are permissible only for serious and compelling reasons. The procedure for withdrawal during this period are the same as in item 1, except that the approval signatures of the instructor and department chairperson 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 in the Office of 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 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 in the Office of Enrollment Services. The requests and approvals shall state the reasons for the withdrawal. These requests must be approved by the instructor, department chairperson and dean of the school. Copies of such approvals are kept on file in the Office of Enrollment Services.

4. Medical Withdrawal:

Complete Medical Withdrawal:

The University may allow a student to withdraw without academic penalty from all 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.

The Provost (or designee) 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.

Repeat Complete Medical Withdrawal:

If the student has been granted a complete medical withdrawal in the immediately preceding term, then additional medical withdrawal requests 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.

Partial Medical Withdrawal:

Students seeking withdrawal from part of their enrollment for any reason, including medical or psychological reasons, are subject to the normal withdrawal policy and process.

5. Instructor Withdrawal:

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 with Enrollment Services whether or not they are officially enrolled. It is the student's responsibility to withdraw officially from the class.

An instructor may also withdraw a student who has enrolled in a course requiring "permission of the instructor" or completion of prerequisites if the student has not properly secured this permission or satisfactorily completed the prerequisites before enrolling.

"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"-"F" or an Incomplete). For purposes of grade point average this symbol is equivalent to an "F." A student who receives a "WU" cannot complete additional work and have the "WU" changed to a letter grade. In courses which 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" will be used instead. Students who receive "WU"s in their first semester of enrollment at CSULB will have those "WU"s automatically changed to "W"s. In such cases the student will be notified that this policy applies for that first semester at CSULB only.

Cancellation of Registration or Withdrawal From Institution

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 from the Office of Enrollment Services, Brotman Hall 123, 562-985-5471.

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. If a recipient of student financial aid funds withdraws from the institution during an academic term or a payment period, the amount of grant or loan assistance received may be subject to return and/or repayment provisions.

Course Grading Option Policy

The faculty determine in advance which courses may be taken for traditional (A-F) grade only, "CR/NC" only, or either. When a course is designated for "CR/NC" grading only or for traditional 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 be a requirement for an undergraduate degree major, minor, certificate, credential, or concentration.

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 "CR/NC" grading for the thesis/project course in the department, and for field-work, practicum, and/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 12 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 the Office of 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 final 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 traditional 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.

Final Examinations

It is the policy in most courses to have several examinations during the semester and a final examination. Final examinations are required in all courses for all students, except in certain activity courses or when the Dean of the College authorizes an exception. The schedule of final examinations is given

in the *Schedule of Classes*. Permission to take a final examination at a time other than that regularly scheduled must be secured from the instructor at least one week in advance of any change. The instructor may not change the scheduled time for the final examination without authorization from the Dean of the College.

Final Grade Reports

Grades will be available approximately three weeks after the end of each semester or session.

Student Grade Record

A record is kept and grade or administrative symbol notations are indicated for all enrollments beyond the second week of instruction. The Registrar will eradicate originally awarded grades from official transcripts but note that there was a grade adjustment made when the following grade changes are made:

1. Grade change due to a clerical error on the part of the instructor of record;
2. Grade change due to a favorable grade appeal;
3. Grade change due to a resolution of RD (report delayed) grade.

The Registrar will not eradicate original grades from student transcripts when the following situations occur:

1. Resolution (make-up) of an incomplete;
2. Repetition of a course.

The Registrar will indicate some grade or administrative symbol for any student enrolled in a course beyond the second week.

Assignment and Change of Grades

General

1. The faculty member 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 grades to all students in that section, subject only to the following exceptions:
 - A. Should the faculty member 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 faculty member of record where appropriate and with the approval of the college dean, may appoint another faculty member with the most appropriate available disciplinary qualifications to complete the assignment of grades; or
 - B. In the event of a successful grade appeal (see section on Change of Grade, below.)
2. University policy requires that final grades shall be based on at least three, and preferably four or more, demonstrations of competence by the student.
3. In no case shall the grade on the final examination count for more than one-third of the course grade.
4. At the start of the course, instructors shall provide to their students in writing the grading policies and practices to be employed in the class and the rules that will apply to withdrawals.
5. Instructors shall keep a record of students' scores on each of the demonstrations of competence on which the final grade is based.

6. Instructors are expected to provide students with an opportunity for demonstration of competence, relevant to the determination of their final grade in the course, as early as is reasonable and no later than the mid-point 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 will be retained for one semester by the instructor. Should the instructor be absent during that term, the materials shall be retained in the department office. In the absence of the original instructor, a qualified instructor may be appointed by the chair to review the demonstration of competence with the student.
9. Grades reported to the Office of Enrollment Services are considered to be official and final grades.

Conditions and Procedures for Change of Grade:

- A. Changes to grades or grading symbols can be made only on the basis of:
 - 1) an error,
 - 2) a successful grade appeal. (See the separate policy statement on Grade Appeals.), or
 - 3) resolution of an Incomplete ("I"). A grade or grading symbol shall not be changed on the basis of additional work submitted, except where an "I" was recorded.
- B. Original grades are replaced only when (1) the change is due to an error, (2) the grade change is the result of a grade appeal, or (3) the Registrar receives a late report of grades for which the symbol "RD" was substituted pending receipt. Original grades are not replaced when the change of grade is the result of (1) the resolution of an Incomplete or (2) the repetition of a course. Grades or administrative grading symbols must be recorded for all enrollments beyond the census date.
- C. Except for changes of grades resulting from grade appeals, all changes of grades must be filed within one year from the date of the filing of the first grade, without respect to continuous enrollment of the student. Only as the result of a grade appeal will a grade be changed after the award of a degree or credential or certificate.
- D. All requests for change of a final course grade shall carry the recommendation of the instructor (except as provided for in the Grade Appeals Procedures), the department chair, and the approval of the dean of the college.

Grade Appeals

Students have the right to formally appeal the final grade, but only the final grade, in a course. Appeals are limited to situations in which the student believes the grade was "prejudicially," "capriciously," or "arbitrarily" assigned. The appeal must be initiated within the first regular semester after assignment of the grade. It must first be directed to the instructor of the course, orally or in writing. If further action is necessary, the student should appeal in writing to the department chair. If further action is necessary, the department chair will forward the appeal in writing to the Department Grade Appeals Committee. If the issue continues to remain unresolved, the written appeal can be directed to the Grade Appeals Committee of the college in which the course was taken. Information about college grade appeals committees and the University policy (P.S. 99-16) can be obtained from the office of the college dean.

CALIFORNIA STATE UNIVERSITY, LONG BEACH GRADUATION RATES

For CSULB the following statistics apply:

TABLE 1

One-Year Continuation Rates for Fall 1999, 2000 and 2001 Regularly Admitted First-Time Freshmen Who Attempted At Least 12 Units in Their First Term of Enrollment

Fall Term	Enrolled	Re-Enrolled One Year Later	Continuation Rate
1999	3,141	2,560	81.5%
2000	2,995	2,428	81.1%
2001	4,195	3,333	79.5%

TABLE 2

Six-Year Graduation and Persistence Rates for Fall 1996 Regularly Admitted First-Time Freshmen Who Attempted At Least 12 Units in Their First Term of Enrollment

Fall Term	Graduation by Summer 2002	Persistence/Enrollment in Fall 2002	Projected Graduation Rate*
1996	43.0%	14.1%	57.1%

TABLE 3

Eight-Year Graduation Rates and Persistence Rates for Fall 1994 Regularly Admitted First-Time Freshmen Who Attempted At Least 12 Units in Their First Term of Enrollment

Fall Term	Graduation by Spring 2002	Persistence/Enrollment in Fall 2002	Projected Graduation Rate*
1994	46.6%	5.1%	51.7%

*Assuming that all students enrolled in Fall 2002 will eventually graduate.

Academic Appeals

Students may petition for exception to academic policy. Typically, exception requests involve issues such as record errors, General Education substitutions or waivers, 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 Academic Advising Center, Library East Room 125. This written appeal will be directed to the Academic Appeals Committee. Petitions must be filed with Enrollment Services, BH-101.

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 is to be submitted for approval to the student's department chair (undergraduate) or graduate advisor.

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 in 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.

Change of Major or Other Objective

Undergraduate students declaring a major for the first time or changing from one degree program or degree option pro-

gram to another must complete and submit an approved Change of Major/Declaration form. These are available in most department offices and in the Office of Enrollment Services.

Students who are candidates for a certificate or credential program must also file a Request to Graduate. (Please see Election of Regulations in this section of the *Catalog*.)

The evaluation of credits transferred to the University is based in part upon the 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. Graduation checks needing to be redone may carry a special fee.

Graduation Check

All coursework must have a course grade recorded prior to the granting of a degree, credential, or certificate.

Seniors and graduate students who expect to receive degrees 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 1; 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. Credential students should apply in the Credential Processing Office, located in the Graduate School of Education, or the Office of Enrollment Services by February 1 for December completion and by October 1 for Spring and Summer sessions.

Graduation with Honors

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

1. 3.95 to 4.00 graduated Summa Cum Laude
2. 3.80 through 3.94 graduated Magna Cum Laude
3. 3.50 through 3.79 graduated Cum Laude

An undergraduate student 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 will be determined from units earned at CSULB plus transferred units. For the second baccalaureate degree, the GPA will be determined only by courses taken after the first degree was awarded that are also required by the second degree.

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 will be limited to three students or five percent of graduates, whichever is larger.

University honors will be noted on the diploma and transcript. Departmental honors will be noted on the transcript only.

Honor Lists

Undergraduate students exhibiting outstanding scholastic achievement are honored by being included on the President's or Dean's List. A certificate will be issued for each semester in which the student receives this honor.

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 of 3.75 - 4.0. 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 of 3.75 - 4.0.

Deans' List

Students will be placed on the Deans' List to honor them for academic achievement each semester in which they complete 12 or more graded course units with a semester GPA of 3.5 - 3.74. Students earning fewer than 12 graded course units per semester will be placed on the Deans' List in the Spring semester of the academic year in which they accumulate 12 or more graded course units with an academic year GPA of 3.5 - 3.74.

Graduation Rates

Under the federal Student Right-To-Know law, institutions of higher education are required to disclose information to prospective and current students about institutional graduation rates. The main purpose of the contextual information is to communicate to students more about what we know has guided time and persistence to degree. Information regarding student retention and graduation rates at California State University, Long Beach and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest may be obtained from Van Novack, Institutional Research, BH 133, 562-985-5462.

Under the state Master Plan for Higher Education, the CSU draws its first-time freshmen from the top one-third of California's high school graduates. Since 1960, the CSU has awarded more than 1.2 million bachelor's degrees in hundreds of program areas.

The number of course credit units required to complete major programs varies. Many programs in the humanities, for example, require the minimum 120 semester, or 180 quarter units for graduation, while it often takes 140 semester, or 210 quarter units to complete engineering programs.

Most undergraduate programs can be completed in four years. But earning a bachelor's degree in four years takes much more than a statement of intent. Because undergraduate degree programs require 120 to 140 semester units, students who wish to finish college in four years must attend school every semester and earn an average of 15 to 17.5 units per term. Rules of thumb translate these unit loads into 45 to 52.5 hours per week in class and study. In addition, four-year students must plan with academic advisers a schedule of courses that will enable them to progress through major sequences, while interweaving appropriate breadth courses in general education. The rewards in making college attendance one's highest priority are at least two-fold: (1) lower total out-of-pocket college costs and (2) earlier entry into career tracks and the postbaccalaureate educational pipeline.

From the early '70s to the early '80s, the portion of CSU students balancing work and education increased substantially. The number of CSU students taking fewer than 15 units per term increased, and over one-fourth of CSU graduates have

"stopped out" for at least one-term before they earn their degrees. More than any other senior institution in California, the CSU has maintained access for students who need to juggle academic life with work and family obligations. The CSU furthermore continues to seek improved ways to provide high-quality instructional opportunities that better fit the time-to-degree that CSU's non-traditional students require.

Across the CSU system, the average time-to-degree for first-time freshmen who fulfilled the University's eligibility requirements and enrolled full-time in their term of entry (that is, according to the federal definition, enrolled in at least 12 units) has been on a plateau of about 5.2 years for several years.

For regular, full-time first-time freshmen who eventually will receive a CSU baccalaureate, most will have it conferred within 6 years after matriculating at a CSU campus. For example, by Fall 1990, or six years after entering the CSU, 45.5 percent of the Fall 1984 entering freshman class had earned the bachelor's degree, with all but 3.6 percent receiving the degree at the CSU campus of first attendance. Prior athlete graduation rate information may be obtained by contacting the University Athletic Director's Office.

Two years later in Fall 1992, the CSU graduation rate climbed to 55.8 percent. Just about nine of ten graduates earned their degree at the CSU campus where they began their university career. In Fall 1992, 3.8 percent of the Fall 1984 entering freshman class were still enrolled as undergraduates. Historical trends indicated that most of these non-traditional students eventually will earn bachelor's degrees at CSU campuses. The CSU graduation rate, then, is expected eventually to reach 59.6 percent. A graduation rate of nearly 60 percent is on par with the best of peer state universities and colleges.

The tables above show persistence and graduation rates for first-time freshmen entering CSULB at different times. Table 1 indicates that the one-year continuation rate of full-time, regularly admitted first-time freshmen who matriculated at CSULB in fall between 1999 and 2001 ranged between 79.5 percent to 81.5 percent, or equal to 81 percent on average.

Table 2 shows that more than two out of five full-time, regularly admitted first-time freshmen (43.0%) who entered CSULB in 1996 obtained their baccalaureate degrees within six years and 57.1 percent of these students are expected eventually to graduate.

Table 3 shows that 46.6 percent of freshmen entering CSULB in 1994 completed their undergraduate studies within eight years and that a small percentage of students (5.1%) were still working toward completion of their degrees in Fall 2002. About 51.7 percent of these students are expected eventually to graduate.

Scholastic 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. Students who remain on academic probation for more than two consecutive semesters are subject to academic disqualification. Students actively participating in an intervention program may request an extension of time to achieve a 2.0 GPA. Such extension will be granted if, and only if, the student is making progress toward the degree.

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.

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 the campus.

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;
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 (example: failure to take placement tests, failure to complete a required practicum).

Academic Disqualification

Undergraduate students on academic probation are subject to academic disqualification:

1. As freshmen (fewer than 30 semester-hours of college work completed), if 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), if 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), if 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), if their grade-point average falls below 1.95 on all units attempted or on all units attempted at California State University, Long Beach; and

5. At any time, if the student remains on academic probation for more than 2 consecutive semesters (i.e., the cumulative GPA remains below 2.0 at the end of 2 consecutive semesters).

In addition to the above disqualification standards applicable to students on probation, individuals not on probation may be disqualified when 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.

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 (Major Code 0000) 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

Students who have 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 students become subject to academic probation while on administrative-academic probation;
3. The students become 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.

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 regulations in effect prior to disqualification.

Reinstatement

In order to be considered for reinstatement to the University, a disqualified student must demonstrate progress toward the degree. This demonstration can be achieved by:

1. Completing courses through University College and Extension Services 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. 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 at the Office of Enrollment Services and must be filed by December 1 for the spring semester or August 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.

Academic Renewal

A student may petition to have all grades and units received during one or two semesters of undergraduate work disregarded in the computation of GPA 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 5 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 this University before filing a request for disregarding the course work.

Petitions for disregarding course work must be submitted to the Office of Enrollment Services. Final determination will be made by the Vice President for Academic Affairs in consultation with the University Academic Appeals Committee. The petitioning student must certify that the work to be disregarded was not reflective of his or her present level of academic performance. This certification must include a statement explaining the extenuating circumstances causing the substandard performance during the term in question. The student must also provide evidence that it would be necessary to complete additional units and enroll for one or more additional semesters in order to qualify for the baccalaureate degree if the request were not approved.

Cheating and Plagiarism

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 include, but are not limited to the following: copying, either in part or in whole, from another's 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 examination 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; or 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 the 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 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 will 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, see below for administration of an Incomplete grade.

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 will have the option to also confer with the instructor separately as individuals.

The faculty member will 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. The instructor will have the agreement form for assigning an "Incomplete" sent to the last known address of the student. The agreement form will state the following in the format indicated:

"Under the provisions of the CSULB Policy Statement on Cheating and Plagiarism, an additional test of competency related to the [syllabus name of suspect demonstration, e.g., Final Examination] is requested. [Explain what additional test of competency.] You may decline to do so. Please contact the instructor, the department office, or the Office of Judicial Affairs for information regarding the University policy on cheating and plagiarism."

The instructor will indicate on the agreement form the grade which will be assigned, normally 120 calendar days following mailing of the Incomplete Agreement, if the student does not respond or, responding, the student does not agree to an additional test of competence.

Charges of cheating or plagiarism cannot be brought against a student more than 120 calendar days after discovery that the work in question may have been plagiarized or that cheating may have taken place.

Notes and evidence will be kept by the department chair or program director for a minimum of five years after the case is settled.

Academic Integrity Committee

The Chair of the Academic Senate and the Vice President for Academic Affairs jointly appoint an Academic Integrity Committee for the University. This Committee consists of one member from the student body, chosen by the Associated Students Government for a one-year term of office; three members of the full-time, tenured or tenure-track faculty, and one member of the Office of Academic Affairs, who will be Chair, voting only in case of ties.

The primary charge of the Committee is to receive the requests of students accused of cheating or plagiarism or the requests of faculty accusing specified student(s) of cheating or plagiarism. Following its review of the evidence, the Committee will report its opinion to the student(s) and to the faculty member involved on whether the accusation is supported by the evidence. This opinion may not be appealed. However, when new evidence appears to so warrant, a faculty member or student may ask, in writing, the Vice President for Academic Affairs or the Chair of the Academic Senate to request the Committee to reconsider a case.

The Academic Integrity Committee has readily available the rules and procedures governing its operations.

In all cases, a Report of the Committee is advisory to the student, with whom rests the presumption of innocence, and the faculty member, to whom the decision on the evidence and academic action is reserved.

A faculty member or student who requests a review of the evidence in a case of alleged cheating or plagiarism must make such a request to the Academic Integrity Committee in writing no later than 14 calendar days following the date of first notification of the student by the faculty member of the allegation. Except under extenuating circumstances, the student and faculty member will have no more than 14 additional calendar days to provide evidence to the Committee.

To preserve the rights of privacy, the Committee meetings are closed. The Committee may request additional information as may be appropriate to the development of its Report. The Committee is to provide a final Report within 21 calendar days of the submission of a request to it. Should additional time be required, the reasons are communicated to the Vice President for Academic Affairs and the Chair of the Academic Senate as well as the student(s) and faculty members involved.

Academic Actions

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.

1. Review but no action;
2. An oral reprimand with emphasis on counseling toward prevention of further occurrences;
3. A requirement that the work be repeated;
4. Assignment of a score of zero (0) for the specific demonstration of competence, resulting in the proportional reduction of final course grade;
5. Assignment of a failing final grade;
6. Referral to the Office of Judicial Affairs for possible probation, suspension, or expulsion.

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 Policy Statement on Grade Appeals.

An appeal of the final grade may include as written testimony the Report of the Academic Integrity Committee.

Policy for a Smoke-Free Campus Environment

California State University, Long Beach has a responsibility to provide employees and students with a safe working and learning environment. Given the fact that smoking is the most significant cause of premature and preventable death in the United States today, California State University, Long Beach is declared to be a "smoke-free" campus in accordance with the Governor's Executive Order D-62-87, Government Code Section 19262.

This "smoke-free" policy will apply to all state-owned and University-operated facilities regardless of location. This policy does not include public performances in which smoking is an integral and necessary part of those performances. Smoking is prohibited in all indoor areas, including but not limited to: administrative offices, private offices, laboratories, class-

rooms, conference rooms, auditoria, lounges, theatres, lobbies, hallways, stairwells, restrooms, libraries, clinics, waiting rooms, reception areas, university vehicles, machine shops, elevators, and food service areas. Where outdoor seating is provided adjacent to indoor food service facilities, non-smoking sections must be designated and posted.

For those employees and students who wish to stop smoking, California State University, Long Beach supports and assists their efforts by providing referrals to cessation programs. The Employee Assistance Program at the Student Health Center may be contacted for information and assistance. The Employee Assistance Coordinator may be reached by calling (562) 985-4771.

Student Discipline

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

41301. Expulsion, Suspension and Probation of Students

Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus-related:

1. Cheating or plagiarism in connection with an academic program at a campus;
2. Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus;
3. Misrepresentation of oneself or of an organization to be an agent of a campus;
4. Obstruction or disruption, on or off university property, of the campus educational process, administrative process, or other campus function;
5. Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse;
6. Theft of, or non-accidental damage to, campus property; or property in the possession of, or owned by, a member of the campus community;
7. Unauthorized entry into, unauthorized use of, or misuse of campus property;
8. On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis;
9. Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president;
10. Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function;
11. Abusive behavior directed toward, or hazing of, a member of the campus community;

12. Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section;
13. Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section;
14. For purposes of this Article, the following terms are defined:
 - A. The term "member of the campus community" is defined as meaning California State University Trustees, academic, nonacademic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function;
 - B. The term "campus property" includes: (A) real or personal property in the possession of, or under the control of, the Board of Trustees of The California State University; and (B) all campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
 - C. The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, sling shot, billy, sand-club, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club;
 - D. The term "behavior" includes conduct and expression;
 - E. The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.
15. This Section is not adopted pursuant to Education Code Section 89031;
16. Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date will be subject to the provisions of this Article as in effect immediately prior to such effective date.

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 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 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 will 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.

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 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 Judicial Affairs. Copies of Chancellor's Executive Order 628, "Student Disciplinary Procedures for the California State University" 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 Judicial Affairs.

Judicial Affairs

The Office of Judicial Affairs (Brotman Hall - 377) provides assistance with the interpretation and enforcement of campus regulations. Complete copies of the CSULB Policies, Information and Regulations Handbook, 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 628, "Student Disciplinary Procedures for The California State University." 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.

The Federal Drug-Free Schools and Communities Act

Each student and employee of California State University, Long Beach needs to be aware of the requirements of the Drug-Free Schools and Communities Act Amendments of 1989 (PL 101-226). These requirements include the notification to each student and employee of campus standards of conduct regarding the use of alcohol and illicit drugs, the legal sanctions which apply, possible health risks, and available counseling and assistance programs. This law, like others the federal government has passed in the last two decades, is tied to eligibility for federal financial assistance. Thus, because California State University, Long Beach receives federal funds such as "federally funded or guaranteed student loans," the law applies to the University and we must comply with its provisions. Under PL 101-226 the Secretary of Education can terminate federal funding for failure to comply and the University has the burden of appealing that decision to an administrative law judge. The law became effective October 1, 1990.

Any questions regarding this law should be directed to the Director of Student Administrative Services at (562) 985-5587.

California State University, Long Beach is dedicated to the elimination of the use of illicit drugs and alcohol abuse. The University makes 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. To facilitate this process, the University provides a Student Assistance Program and an Employee Assistance Program.

California State University, Long Beach complies with the requirements of the Drug Free Schools and Communities Act Amendments of 1989 by implementing the following:

1. The annual distribution in writing to each student, regardless of the length of the student's program of study, and to each employee of:
 - A. standards of conduct that clearly prohibit, at a minimum, the unlawful possession, use, or distribution of illicit drugs and alcohol by students and employees on its property or as part of any of its activities;
 - B. a description of the applicable legal sanctions under local, State, or Federal law for the unlawful possession or distribution of illicit drugs and alcohol;
 - C. a description of the health risks associated with the use of illicit drugs and abuse of alcohol; and,
 - D. a clear statement that the institution will impose disciplinary sanctions on students and employees (consistent with local, State and Federal law), and a description of those sanctions, up to and including expulsion or termination of employment and referral for prosecution, for violations of the standards of conduct. A disciplinary sanction may include the completion of an appropriate rehabilitation program.
2. Conducting a biennial review of the campus drug and alcohol abuse prevention program to:
 - A. determine its effectiveness and implement changes to the program if they are needed; and
 - B. ensure that its disciplinary sanctions are consistently enforced.

The review is conducted by a panel consisting of the Provost and Senior Vice President for Academic Affairs or designee, the Vice President for Student Services or designee, the Vice President for Administration and Finance or designee, the Chair of the Academic Senate or designee, the President of the Associated Students or designee, and the Chair of the Academic Senate Student Affairs committee or designee.

The review is conducted during the month of October in each even-numbered year. The report of the review panel is submitted to the President by December 1 following the October review period.

The following are members of the review panel recommended by the Academic Senate Committee on Committees for approval by the Academic Senate: a member from the University Counseling Center, a full-time permanent or probationary staff member, an Associated Students Senator, and a member from the Student Health Center.

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*.

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 judgement, 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 a Problem, We Want to Help

The California State University, Long Beach Health Center offers substance abuse programs for students, faculty and staff. These include: a Student Assistance Program for students; and Employee Assistance Program for faculty and staff; and 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).

An experienced and specially trained therapist under the supervision of the Medical Director serves as the coordinator and counselor for these programs, and medical doctors, other health professionals, and counseling psychologists are available for consultation. All contacts with the Health Center and professional personnel are confidential.

Information concerning the prevention of drug and alcohol abuse and rehabilitation programs may be obtained from Shifra Teitelbaum, Student Health Center, (562) 985-4609.

The California State University, Long Beach Health Center is located at the corner of State University Drive and Merriam Drive. The telephone number is (562) 985-4771.

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.)

CSU Nondiscrimination Policy

Race, Color, and National Origin

The California State University complies with the requirements of Title VI and Title VII of the Civil Rights Act of 1964 as amended and the regulations adopted thereunder. No person shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

Disability

The California State University does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder and the Americans with Disabilities Act of 1990 prohibit such discrimination. Jan Reyes, Director of Equity and Diversity, has been designated to coordinate the efforts of CSULB to comply with these Acts and their implementing regulations. Inquiries concerning compliance may be addressed to this person at USU 301, (562) 985-8490.

Sex

The California State University does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Education Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by CSULB. Such programs and activities include admission of students and employment. Inquiries concerning the application of Title IX to programs and activities of CSULB may be referred to Jan Reyes, the campus officer assigned the administrative responsibility of reviewing such matters or to the Regional Director of the Office of Civil Rights, Region IX, 50 United Nations Plaza, Room 239, San Francisco, California 94102.

The California State University is committed to providing equal opportunities to male and female CSU students in all campus programs, including intercollegiate athletics.

Sexual Orientation

By CSU Board of Trustees policy, the California State University does not discriminate on the basis of sexual orientation.

Discrimination

Introduction

California State University, Long Beach is a comprehensive, urban university. CSULB has a 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 has been defined as "the increase in possibilities, creativity, and energy inherent in a population of different characteristics." Diversity thrives when equal opportunity exists and when the environment is free of discrimination, harassment and retaliation.

Equal Opportunity

California State University, Long Beach is committed to the principles of equal opportunity in education and employment, to affirmative action defined by Executive Order and Federal regulations, and to the protection of civil rights. It is the policy of CSULB to provide programs, services, and benefits, including employment, without regard to race, religion, color, ancestry, ethnicity, gender, marital status, pregnancy, national origin, age, mental or physical disability, sexual orientation, special disabled veterans' status, Vietnam Era or other covered veteran status.

University Policy

Students, employees, volunteers, members of the public, and recipients of services and/or benefits provided by CSULB have the right to a University environment free from discrimination, harassment, and/or retaliation on the basis of: race, color, religion, gender, national origin, ancestry, ethnicity, sexual orientation, pregnancy, marital status, disability, age, medical condition, Vietnam Era veteran status, special disabled veteran status, other covered U.S. Veteran status (opm.gov/veterans/html/vgmedal2.htm).

The Office of Equity & Diversity is charged with the responsibility for compliance with laws, regulations, policy, and guidelines that guarantee civil rights and protection from discrimination, harassment and/or retaliation.

Jan Reyes, Director of Equity & Diversity, is officially designated to coordinate the efforts of CSULB. Your questions and concerns are important! Please feel free to stop by the office in the University Student Union, Room 301, 1250 Bellflower Blvd., Long Beach, CA 90840, or call (562) 985-8256, or email to jreyes@csulb.edu.

Scope

This policy applies to all CSULB programs and activities, including but not limited to educational, cultural, recreational, and social and/or athletics activities occurring on the CSULB campus and/or sponsored or assisted by CSULB; CSULB academic programs and/or activities; CSULB-sponsored off-campus programs, housing supplied or regulated by CSULB; employment actions, including but not limited to recruitment, hiring, education, upgrading, promotion, transfer, demotion, layoff, recall, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship; choice of contractors and suppliers of good and services; provision of services and benefits to CSULB students, employees, volunteers, or the public; receipt of CSULB services and benefits provided by CSULB contractors or vendors.

Endorsement of CSULB Principles of Shared Community

California State University, Long Beach takes pride in its tradition of maintaining civility and mutual respect toward all members of the University community. These 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. CSULB also takes pride in the diversity of its student body and employees and affirms that this diversity enriches the work and learning environment of the campus.

CSULB affirms that members of the CSULB community have the right to work and learn in an environment free of dis-

crimination. The University affirms the equal human 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. The University will not tolerate discrimination on the basis of race, religion, age, color, creed, gender, disability, sexual orientation, medical condition, national or ethnic origin, veteran status, or any other basis not directly related to qualifications, unless specified by law. These principles are applicable in the administration of its educational policies, admission policies, employment policies, and in participation in university programs and activities or any other programs administered by the University.

In addition to meeting fully 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 economic status, ethnic background, political views, or other personal characteristics or beliefs. (Policy Statement 00-06 Effective June 1, 2000)

Definitions

Prohibited Discrimination is treatment of an individual or class of individuals which denies opportunity, participation, or benefit on any of the identified grounds.

Prohibited Harassment is offensive conduct of an unwelcome nature on the basis of any of the characteristics identified. A hostile environment may exist when such conduct is persistent and/or pervasive and when it unreasonably interferes with an individual's ability to participate, learn, and/or work. Factors that may establish hostile environment include whether the conduct was a) verbal or physical or both; b) a single incident or a pattern of behavior; c) perceived to be hostile or offensive to other reasonable persons; d) directed to one or more individuals or class of individuals, e) and if the exercise of authority was involved.

Prohibited Retaliation/Reprisal for filing a complaint of discrimination or harassment, for opposing prohibited discrimination or harassment, or for testifying, assisting or participating in any manner in any complaint proceeding is not tolerated and constitutes separate grounds for complaint.

Reasonable Accommodation Access and opportunity are fundamental to success for everyone. Individuals with disabilities are guaranteed these rights under federal and state law. Those who need assistance or modification to the University's programs, activities or workplace should inform the person(s) responsible for these programs, activities, or workplace immediately upon knowing that such modification is necessary. Individuals registered with the California Department of Rehabilitation may be eligible for assistance through that agency.

Students may be eligible for assistance through the Office of Disabled Student Services, located in Brotman Hall 270, telephone (562) 985-5401. For evaluation and service, contact that office directly.

Employees who need reasonable accommodation in order to carry out the duties of their job should inform their immediate supervisor. If the modification or accommodation provided is inappropriate or insufficient, you may seek the assistance of the campus ADA coordinator – Jan Reyes, Director, Equity and Diversity, located in University Student Union 301, telephone (562) 985-8256 or by email to jreyes@csulb.edu

If a reasonable accommodation has been requested but was not provided, the individual may access the complaint resolution process.

Confidentiality

The University is committed to maintaining a safe environment in which individuals can be unafraid to discuss concerns. Any member of the University community may seek general information and guidance about discrimination and harassment issues in confidence. However, the University has a legal obligation to take appropriate action to stop prohibited behavior. In an informal complaint, the nature of the allegations may be shared so that a resolution can be reached. In the formal process, the complaint must be submitted in writing and signed by the complainant. Individuals charged with inappropriate behavior will be provided an opportunity to respond to the charges.

Complaint Process

Allegations of discrimination or harassment, or of retaliation for exercising your rights guaranteed by law or policy may be filed with the Office of Equity and Diversity. The Director of Equity & Diversity is empowered to investigate complaints and to work toward a resolution. The informal process is designed to reach agreement between the involved parties without an investigation. The formal process may be utilized when the complainant seeks an investigation and an official finding that may lead to disciplinary action. Formal complaints must be lodged with the Office of Equity & Diversity in writing and signed by the complainant.

Student complaints must be filed no later than 180 days from the date of the alleged offense.

An Informal complaint may be initiated by notification to or discussion with one of the designated resource persons, the chair of an academic department, the dean of a college, the work supervisor, or the Director of Equity and Diversity. Informal discussions may be initiated by any of the resource persons to work toward resolution of the complaint. All informal complaints must be reported by the resource person to the 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.

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; California Assembly Concurrent Resolution 46 (1987)]. 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 defined as an act 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 immediate 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).

"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. It is estimated that 50-70% of all rapes are acquaintance rapes or non-stranger crimes.

"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).

"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 [Reference: California Penal Code, Section 261.6; 266(c)].

"Unlawful Sexual Intercourse" 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, supports, 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 (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 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 Disciplinary Procedures for the California State University (Reference: Chancellor's Executive Order 148, "Student Disciplinary Procedures for the California State University"; and Title V, California Code of Regulations, Section 41301-41304, "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
- simply dialing 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. When requested, a female investigator trained in sexually related violations will be available.

University Police shall contact one or more of the following by telephone, memorandum or both. Alternatively, the victim may contact any of the following personnel or departments.

1. Associate Vice President for Student Services
(562) 985-5587, Brotman Hall 377
2. Director, University Counseling Center
(562) 985-4001, Brotman Hall 226
3. Director, Student Health Center
(562) 985-4771, Health Center
4. Director, Staff Personnel Services
(562) 985-4031, Brotman Hall 335
5. Director, Equity and Diversity (562) 985-8256, Student Union, Rm 301
6. Senior Director, Judicial Affairs (562) 985-5270, Brotman Hall 377
7. Director, Women's Resource Center
(562) 985-8575, Liberal Arts 3-105
8. Director, Housing and Residential Life
(562) 985-4187, Parkside Commons

The respective units or persons contacted will be responsible for reports, as may be required by law, to be filed for their respective unit, e.g., violations under the Child Abuse Reporting Law, Jeanne Clery Act or Megan'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 at either our main police department, our substation, by calling our main telephone line (562) 985-4101 or by downloading it in PDF format. Both are located on this campus: the main station is located at 1331 Palo Verde Ave., the most eastern boundary of CSULB and our substation is located at the Student Union outside courtyard in the center of the CSULB. This report is prepared in cooperation with the Police agencies surrounding our main campus and our alternate sites, Housing and Residential Services, the Judicial Affairs Office and the Division of Student Affairs. 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 or Staff: Employee Relations Administrator (562) 985-4128; BH 300
 - B. Student: Senior Director, Judicial Affairs (562) 985-5270; BH 377
4. Alternative Campus Housing Assignments: Director, Housing (562) 985-4187; Housing Office
5. Academic Assistance:
 - A. University Counseling Center (562) 985-4001; BH 226
 - B. Women's Resource Center (562) 985-5466; LA3-105
 - C. Academic Advising Center (562) 985-4837; Library East 125

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, Judicial Affairs 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 Center provides crisis counseling as well as ongoing assistance to students who have experienced sexual assault; (562) 985-4001.
- 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 Resource Center provides video tapes, books, and brochures for both men and women, and referrals to community services are also provided; (562) 985-5466.
- 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. (562) 986-4101 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, Long Beach for the S.A.R.T. services. The emergency room staff will contact S.A.R.T. directly.

Additionally, referrals may be made to the Rape Crisis Hotline - Long Beach area (562) 597-2002 or to the Sexual Assault Crisis Agency, (562) 433-1287 which offers a 24-hour crisis hotline:

- A. The Rape Crisis Hotline - South Bay area, (310) 545-2111;
- B. The Rape Crisis Hotline - Orange County, (714) 831-9110;
- C. Rape Treatment Center - Santa Monica Hospital (310) 319-4000;
- D. The Victim Witness Assistance Hotline, (714) 957-2737;
- E. Safe At Home Confidential Address Program 877-322-5227, www.ss.ca.gov/safeathome/.

Also, the University Counseling Center and the Career Development Center 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 University Counseling Center is (562) 985-4001. The Career Development Center can be reached at (562) 985-4152.

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 13959, 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 CSU, Long Beach 1331 Palo Verde Avenue Long Beach, CA 90840 Telephone: (562) 985-4101	OR	Victims of Violent Crime Program State Board of Control State Office Bldg. No. 1, Rm. 102 Sacramento, CA 95814 Telephone: (916) 445-1540
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Privacy Rights of Students in Education Records

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 student records maintained by the campus and the release of such records. The law provides that the campus must give students access to 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 at the Office of Enrollment Services or the Office of Judicial Affairs. 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, Washington, D.C. 20202-4605.

The campus is authorized under the Act to release "directory information" concerning students. Effective Fall 2003, 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), major field of study, dates of attendance, grade level, enrollment status, degrees, honors, and awards received, and e-mail address. Addresses and telephone numbers 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 and telephone numbers 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 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 using 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; or to other institutions to which the student is transferring).

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. 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

Applicants are required to include their correct social security numbers in designated places on applications for admission 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 purposes of financial aid eligibility and disbursement 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 Taxpayer Identification Number to the campus.

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. There are 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

It is the responsibility of the person assigned to an office to ensure that the door is locked at the conclusion of work. Further, it is the responsibility of the last instructor teaching in a classroom to ensure that the door is secure and the lights are turned off when the class is concluded. In areas where

equipment technicians are employed, it will be their responsibility to secure all doors at the end of the working day. 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.

Personnel who require access to buildings and rooms must request keys with appropriate departmental approval. 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. Should a faculty or staff member require access to a particular building or room after normal instructional or working hours, presentation of identification to University Police is required. Failure to present proper identification to University Police is grounds to deny the request for 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. This authorization must be on file with University Police.

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/Date 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 CSULB annual crime statistics reports may be obtained from University Police, (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. The meetings are on a monthly basis and discuss areas of possible problems. Reports are exchanged with LBPD, LASO, and other police departments.

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 Center 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*.

FACULTY

- Abels, Paul (1986)** Professor
Social Work
B.A., Rutgers University; Ph.D., University of Chicago. Emeritus, 2000.
- Abrahamse, Dorothy Z. (1967)** Dean
College of Liberal Arts
..... Professor
History
B.A., Mount Holyoke College; M.A., Ph.D., University of Michigan.
- Abramis, David J. (1985)** Professor
Management/Human Resources Management
B.A., University of California, Santa Cruz; M.A., Ph.D. University of Michigan.
- Abramson, Charles A. (2001)** Assistant Professor
Marketing
B.A., California State University, Fullerton; M.B.A., University of Chicago; Ph.D., University of California, Irvine.
- Acey, Roger A. (1983)** Professor
Chemistry and Biochemistry
B.S., Ph.D., Wayne State University.
- Acosta-Deprez, Veronica M. (1996)** Associate Professor
Health Science
B.S., St. Louis University, Philippines; M.S., Ph.D., University of Wisconsin, Madison.
- Adams, Stephen T. (2000)** Assistant Professor
Educational Psychology, Administration, and Counseling
B.A., Grinnell College; M.A., Ph.D., University of California, Berkeley.
- Aguinaga, Jose (2001)** Associate Librarian
University Library
B.A., University of San Diego; M.L.S., University of Arizona.
- Aguirre, JoAnn K. (1998)** Assistant Professor
Occupational Studies
B.A., M.A., California State University, Long Beach.
- Ahrens, Courtney E. (2002)** Assistant Professor
Psychology
B.A., Smith College; M.A., Ph.D., University of Illinois at Chicago.
- Ali, M. Shafqat (1967)** Professor
Mathematics and Statistics
B.S., Agra University, India; M.S. Muslim University, India; M.A., Ph.D., University of California, Santa Barbara. Emeritus, 2001.
- Allen, Judith N. (1996)** Professor
Dance
B.F.A., University of Oklahoma; M.F.A., University of North Carolina.
- Allen, Terre (1990)** Director
Hauth Center for Communication Skills
..... Professor
Communication Studies
B.A., Louisiana Technical University; M.A., Ph.D., Louisiana State University, Baton Rouge.
- Ambos, Elizabeth L. (1989)** Dean
Academic Affairs Graduate Studies and Research
..... Associate Dean
College of Natural Sciences and Mathematics
..... Professor
Geological Sciences
A.B., Smith College; M.S., Ph.D., University of Hawaii.
- Amirkhan, James H. (1988)** Professor
Psychology
B.A., Reed College; M.A., California State University, Northridge; Ph.D., University of California, Los Angeles.
- Ammermann, Peter A. (1999)** Assistant Professor
Finance, Real Estate and Law
B.B.A., Roanoke College; M.B.A., Virginia Polytechnic Institute and State University; Ph.D., Virginia Polytechnic Institute and State University.
- An, Shuhua (2000)** Assistant Professor
Teacher Education
B.A., Nanjing Normal University, Nanjing, China; M.B.A., Texas A&M International University; Ph.D., Texas A&M University.
- Anand, Rajen S. (1970)** Professor
Biological Sciences
B.Sc., Meerut College, India; B.V.Sc A.H (D.V.M.), M.P., Veterinary College Research Institute, India; Ph.D., University of California, Davis.
- Andersen, Leslie N. (2002)** Associate Librarian
Library
B.M., University of Southern California; M.M., The Florida State University, Tallahassee; M.L.S., The Florida State University, Tallahassee.
- Anderson, Haldon L. (2000)** Associate Professor
Teacher Education
B.S., M.S., Indiana State University; Ph.D., Florida State University.
- Anderson, Kaye W. (1989)** Associate Professor
Teacher Education
B.S., Phillips University; M.S., Ph.D., Southern Illinois University. Emeritus, 2000.
- Anjo, Dennis M. (1984)** Professor
Chemistry and Biochemistry
B.A., M.S., San Francisco State University; Ph.D., Arizona State University, Tempe.
- Anwar, Mohammad Z. (1965)** Professor
Physics and Astronomy
B.S., M.A., Dacca University, Pakistan; Ph.D., University of British Columbia.
- Archie, James W. (1989)** Professor
Biological Sciences
B.S., Michigan State; Ph.D., State University of New York, Stony Brook.
- Armento, Greg (1988)** Librarian
B.A., M.A., California State University, Chico; M.A.L.S., University of Wisconsin.
- Arnold, Josh A. (1996)** Associate Professor
Management/Human Resources Management
B.A., Point Loma Nazarene College; M.A., Ph.D., University of Illinois at Urbana-Champaign.
- Arroyo, Luis L. (1995)** Professor
Chicano and Latino Studies
B.A., M.A., University of California, Santa Barbara; Ph.D., University of California, Los Angeles.
- Ary, James P. (1983)** Professor
Electrical Engineering
B.S., St. Mary's College, California; Ph.D., Ohio State University.
- Ashe, Pamela E. (1994)** Psychologist
Counseling and Psychological Services
B.A., California State University, Long Beach; M.A., California State University, Dominguez Hills; Ph.D., Howard University, Washington D.C.
- Asher, Abraham (2003)** Assistant Professor
Information Systems
B.A., California State University, Fullerton; M.S., University of Southern California; Ph.D., Claremont Graduate School.
- Attinasi, John J. (1993)** Professor
Teacher Education/Linguistics
B.A., University of St. Thomas, Texas; M.A., Ph.D., University of Chicago.
- Ayers, R. Dean (1967)** Professor
Physics and Astronomy
B.S., M.S., Ph.D., California Institute of Technology.
- Azary, Irisita G. (1997)** Assistant Professor
Geography
B.A., Swarthmore College; M.A., University of Pennsylvania; Ph.D., Boston University.
- Azevedo, Ricardo (1999)** Head Coach
Water Polo
B.A. National University.
- Babcock, William A. (2001)** Professor
Journalism
B.A., Principia College; M.A., The American University; Ph.D., Southern Illinois University at Carbondale.
- Baber, Walter F. (2001)** Assistant Professor
Public Policy and Administration
B.A., California State University, Long Beach; M.A., Ph.D., University of North Carolina at Chapel Hill.
- Bachar, John M., Jr. (1969)** Professor
Mathematics and Statistics
B.S., M.S., Northwestern University; Ph.D., University of California, Los Angeles. Emeritus, 2000.

- Bachelor, Patricia A. (1985)** Professor
Psychology
B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California.
- Bachman, Guy F. (2002)** Assistant Professor
Communication Studies
B.A., University of Hawaii, Manoa; M.A., New Mexico State University, Las Cruces; Ph.D., Arizona State University, Tempe.
- Bader, Jeanne (1992)** Associate Professor
Family and Consumer Sciences
B.A., University of Delaware; M.A., University of Vermont; Ph.D., University of California, San Francisco. Emeritus 2002.
- Bailey, Charel (2001)** Assistant Coach
Women's Basketball
B.A., California State University, Long Beach.
- Bailey, Daniel (1971)** Head Athletic Trainer
B.A. University of Utah; M.A. University of Southern California.
- Baine, Peter (1968)** Professor
Chemistry and Biochemistry
GRIC, Salford University, England; M.S., California Institute of Technology; Ph.D., University of California, Santa Barbara. Emeritus, 2001.
- Baker, Philip C. (1969)** Associate Professor
Biological Sciences
B.A., Earlham College, Indiana; Ph.D., University of North Carolina.
- Banuet, Flora (2002)** Associate Professor
Biological Sciences
B.A., Ph.D., University of Oregon
- Bao, Xiaolan (1993)** Professor
History
B.A., Beijing Teachers' College; M.A., Guangzhou Jinan University, P.R. China; Ph.D., New York University.
- Barbara, Donald (2001)** Assistant Coach
Baseball
B.A., California State University, Long Beach.
- Barber, Daniel M. (1975)** Professor
Public Policy and Administration
B.E., M.A., University of Miami; Ed.D., Florida Atlantic University. Emeritus, 2000.
- Barcellona, John (1989)** Professor
Music
B.M., University of Hartford; M.A., California State University, Long Beach; D.M.A., University of Southern California.
- Bargen, Brent (2000)** Assistant Men's Basketball Coach
Sports, Athletics and Recreation
B.S., Doane College, Crete, Nebraska.
- Barrett, R. Conrad (1988)** Professor
Comparative World Literature and Classics
B.A., Stanford University; M.A., University of California, Los Angeles; Ph.D., University of Southern California.
- Battaglia, Anthony (1974)** Professor
Religious Studies
B.A., M.A., La Salle College; Ph.D., Princeton University.
- Baum, Alwin L. (1989)** Associate Professor
Comparative World Literature and Classics
A.B., Indiana University, Bloomington; Ph.D., University of California, San Diego.
- Beattie, Randall C. (1972)** Professor
Communicative Disorders
B.S., Northern Illinois University; M.S., University of Illinois; Ph.D., University of Southern California.
- Becker, Harold K. (1963)** Professor
Criminal Justice
B.A., M.S., University of Southern California; D. Crim., University of California, Berkeley. Emeritus, 2000.
- Beckman, Alexander L. (1986)** Professor
Psychology
B.A., University of California, Los Angeles; Ph.D., University of California, Santa Barbara.
- Behl, Richard J. (1995)** Associate Professor
Geological Sciences
B.A., University of California, San Diego; Ph.D., University of California, Santa Cruz.
- Belmas, Genelle (2002)** Assistant Professor
Journalism
B.A., M.A., University of Wisconsin, Madison; Ph.D., University of Minnesota, Minneapolis.
- Benitez, Juan M. (2001)** Assistant Professor
Chicano and Latino Studies
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Center for European Studies
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Psychology
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Accountancy
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Health Science
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Center for Health Care Innovation
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Women's Golf
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Student Life and Development
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Women's Studies Program
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Health Science
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Marketing
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Faculty Center for Professional Development
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English
B.A., M.A., California State University, Long Beach; Ph.D., University of Southern California.
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English
B.S., Utah State University; M.A., The University of Texas at El Paso; Ph.D., University of Arizona.
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Finance, Real Estate and Law
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- Wilson, Raymond K. (1999) Associate Professor
Biological Sciences
B.A., Ph.D., University of California, San Diego.
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Computer Engineering and Computer Science/Mathematics and Statistics
B.A., M.A., Ph.D., University of California, Los Angeles. Emeritus, 2001.
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Marketing
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Marketing
B.S., Vanderbilt University; M.B.P.A., Ph.D., University of California, Irvine.
- Wollmer, Richard D. (1970) Professor
Information Systems
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Educational Equity Services
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- Wright, Claudia R. (1988) Professor
Educational Psychology, Administration and Counseling
B.A., M.A., California State University, Los Angeles; Ph.D., University of Southern California.
- Wright, Teresa A. (1996) Associate Professor
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- Wrynn, Alison M. (2000) Assistant Professor
Kinesiology and Physical Education
B.S., Springfield College, Springfield, Massachusetts; M.A., California State University, Long Beach; Ph.D., University of California, Berkeley.
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Kinesiology and Physical Education
B.S., M.A., Northern Michigan University; Ph.D., University of Utah. Emeritus, 2001.
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Asian and Asian American Studies
B.A., M.A., Shanghai International Studies University, China; Ph.D., University of Pittsburgh, Pennsylvania.
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Mathematics and Statistics
B.S., University of Science and Technology of China; M.S., Institute of Mathematics, Chinese Academy of Sciences; Ph.D., Courant Institute, New York University.
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Center for Southeast Asian Studies
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Comparative World Literature and Classics
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Economics
B.A., Washington University; Ph.D., University of California, San Diego.
- Yan, Jun (2001) Assistant Professor
Management/Human Resources Management
B.S., East China Institute of Technology; B.S., Nanjing University of Science and Technology; Ph.D., Texas Tech University.
- Yates, Jerry W. (1974) Professor
Design
B.A., California Polytechnic State University, San Luis Obispo; M.A., Indiana State University.
- Yavari, Parviz (1994) Professor
Engineering Technology
B.S., Shiraz University; M.S., Ph.D., University of Southern California.
- Yeakley, Anna M. (2000) Assistant Professor
Social Work
B.S., California Institute of Technology; M.A., M.S.W., Ph.D., University of Michigan, Ann Arbor.
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Electrical Engineering
B.S., Cheng Kung University, Taiwan; M.S., Ph.D., University of California, Irvine.
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Mechanical and Aerospace Engineering
B.S., Cheng-Kung University, Taiwan; M.S., Brown University; M.S., Columbia University; Ph.D., University of Southern California.
- Young, Douglas E. (1988) Professor
Kinesiology and Physical Education
B.A., M.S., Ph.D., University of California, Los Angeles.
- Young, Elizabeth V. (1989) Associate Professor
English
B.A., Cornell; M.A., Ph.D., University of Michigan.
- Young, Kelly A. (2003) Assistant Professor
Biological Sciences
B.S., California Polytechnic State University, San Luis Obispo; M.A., Johns Hopkins University; Ph.D., Johns Hopkins School of Public Health.

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 Communication Studies
 B.A., University of Southern California; M.A., San Diego State University; Ph.D., University of Texas at Austin.
- Young Owl, Marcus (1989)** Professor
 Anthropology
 B.A., California State University, Long Beach; M.A., Ph.D., University of California, Los Angeles.
- Yudin, Sara (2001)** Assistant Coach
 Women's Soccer
 B.A., California State University, Fresno.
- Yur-Austin, Jasmine T. (1995)** Associate Professor
 Finance, Real Estate and Law
 B.A., National Taiwan University; M.B.A., University of Missouri; Ph.D., University of California, Irvine.
- Zanutto, Daniel R. (2000)** Associate Professor
 Music
 B.A., M.A., California State University, Fresno; Ed.D., University of California, Davis and California State University, Fresno.
- Zentgraf, Kristine M. (1998)** Assistant Professor
 Sociology
 B.A., California State University, Long Beach; M.A., Ph.D., University of California, Los Angeles.
- Zepeda, Rafael J. (1987)** Professor
 English
 B.A., California State University, Long Beach; M.F.A., University of Oregon, Eugene.
- Zhang, Mason X. (2000)** Assistant Professor
 Biological Sciences
 B.S., Zhejiang Agricultural University, China; M.S., University of Minnesota, Twin Cities; Ph.D., University of Wisconsin, Madison.
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 Mathematics and Statistics
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- Ingrid Aall** (1969) Professor Emeritus, 2002
Art
- Herbert L. Aarons** (1965) Associate Professor Emeritus, 1991.
Sociology
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Social Work
- Rifaat Ali Abou-El-Haj** (1964) Professor Emeritus, 1995.
History
- Ruth H. Afflack** (1966) Professor Emeritus, 1992.
Mathematics
- Irving F. Ahlquist** (1949) Professor Emeritus, 1983.
History
- Eugene Albert** (1967) Associate Professor Emeritus, 1992.
Mathematics
- Leonard O. Albright** (1984) Professor Emeritus, 2000.
Occupational Studies
- Kamal T. Al-Chalabi** (1966) Professor Emeritus, 1990.
Civil Engineering
- Robert L. Alexander** (1964) Professor Emeritus, 1991.
Civil Engineering
- Frank J. Alfieri** (1967) Professor Emeritus, 1994.
Biological Sciences
- M. Shafqat Ali** (1967) Professor Emeritus, 2001.
Mathematics
- Barbara S. Allen** (1970) Professor Emeritus, 1995.
Music
- Kenneth J. Ames** (1968) Professor Emeritus, 1987.
English
- Rhoda M. Andersen** (1974) Associate Professor Emeritus, 1988.
Recreation and Leisure Studies
- Kaye W. Anderson** (1989) Associate Professor Emeritus, 2000.
Teacher Education
- Robert E. Anderson** (1964) Professor Emeritus, 1988.
Music
- Roy C. Anderson** (1965) Professor Emeritus, 1996.
Economics
- Shane Andre** (1967) Professor Emeritus, 1994.
Philosophy
- Edna M. Andrews** (1967) Professor Emeritus, 1982.
Accounting
- Carl R. Anselmo** (1964) Professor Emeritus, 1994.
Biological Sciences
- Blair C. Archer** (1950) Professor Emeritus, 1983.
Art
- Alfonso L. Archuleta** (1965) Associate Professor Emeritus, 1983.
Spanish/Portuguese
- Harold Aspiz** (1958) Professor
English
- William D. Ash** (1957) Professor Emeritus, 1990.
Marketing
- Charles W. Austin** (1966) Professor Emeritus, 1994.
Mathematics
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English
- John M. Bachar, Jr.** (1969) Professor Emeritus, 2000.
Mathematics
- Jeanne Bader** (1992) Associate Professor Emeritus, 2002.
Family and Consumer Sciences
- Jerry Bailor** (1968) Associate Professor Emeritus, 1990.
Theatre Arts
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Chemistry and Biochemistry
- John J. Baird** (1956) Professor Emeritus, 1984.
Biological Sciences
- Dan F. Baker** (1961) Professor Emeritus, 1986.
Radio Television and Film
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Home Economics
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Public Policy and Administration
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German, Russians and Classics
- Kenneth T. Bartlett** (1959) Professor Emeritus, 1993.
Physical Education
- Eleanor H. Bates** (1970) Professor Emeritus, 1988.
Anthropology
- Roger D. Bauer** (1959) Dean, Professor Emeritus, 1992.
College of Natural Sciences and Mathematics, Chemistry and Biochemistry
- Marion S. Beaumont** (1967) Professor Emeritus, 1996.
Economics
- Louis L. Beck** (1970) Professor Emeritus, 1989.
Teacher Education
- Edwin N. Becker** (1955) Professor Emeritus, 1983.
Chemistry
- Harold K. Becker** (1963) Professor Emeritus, 2000.
Criminal Justice
- Howard B. Beckwith** (1969) Professor Emeritus, 2000.
Mathematics
- Earl S. Beecher** (1961) Professor Emeritus, 1994.
Finance, Real Estate and Law
- Donald A. Beegle** (1963) Professor Emeritus, 1988.
Health Science
- Bruce E. Beekman** (1958) Professor Emeritus, 1992.
Biological Sciences
- Virginia M. Belt** (1963) Professor Emeritus, 1983.
Finance
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Accountancy
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History
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Chemistry and Biochemistry
- George V. Betar** (1963) Professor Emeritus, 1981.
English
- Mark C. Biedebach** (1967) Professor Emeritus, 1996.
Biological Sciences
- Albert G. Black** (1962) Associate Professor Emeritus, 1988.
English
- Janet E. Black** (1990) Professor Emeritus, 1998
Social Work
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Computer Engineering and Computer Science
- Enid V. Blaylock** (1966) Professor Emeritus, 1983.
Educational Psychology and Administration
- James H. Bliss** (1964) Professor Emeritus, 1980.
Journalism
- Stephen K. Blumberg** (1975) Professor Emeritus, 1998.
Public Policy and Administration
- Blaze O. Bonazza** (1966) Professor Emeritus, 1983.
English
- William D. Bonis** (1963) Professor Emeritus, 1991.
Philosophy
- David C. Borders** (1962) Professor Emeritus, 1990.
Art
- Warren J. Boring** (1956) Professor Emeritus, 1981.
Physical Education
- Edward J. Borowiec** (1969) Professor Emeritus, 2000.
English
- James A. Bourret** (1968) Professor Emeritus, 1992.
Biological Sciences
- Donna L. Boutelle** (1967) Professor Emeritus, 1994.
History
- Dean O. Bowman** (1973) Dean Emeritus, 1977.
School of Business Administration
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Education
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English
- Alexander L. Britton** (1965) Professor Emeritus, 1980.
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English
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English
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Journalism
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Speech Communication
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Home Economics and Gerontology
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Elementary Education
- Darrell V. Burras** (1957) Professor Emeritus, 1980.
Information Systems
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Recreation and Leisure Studies
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Electrical Engineering
- Daniel A. Campbell** (1962) Professor Emeritus, 1990.
Physical Education
- Janet Campbell** (1965) Senior Assistant Librarian, Emeritus, 1998.
- Herbert L. Camburn** (1960) Professor Emeritus, 1996.
Theatre Arts
- Filemon C. Campo-Flores** (1972) Professor Emeritus, 1996.
Management/Human Resources Management
- Harold L. Cannon** (1968) Professor Emeritus, 2002.
Romance, German, Russian Languages and Literatures
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Biological Sciences

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Psychology

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Theatre Arts

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Educational Psychology and Administration

Ottis L. Castleberry (1956) Professor Emeritus, 1983.
Speech Communication

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History

Kwan M. Chan (1969) Professor Emeritus, 1998.
Geological Sciences

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Political Science

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Civil Engineering

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Physics and Astronomy

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Industrial Education

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Philosophy

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Art

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Physical Education

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Nursing

James E. Cockrum (1955) Professor Emeritus, 1978.
Instructional Media

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Mathematics

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Political Science

Charles L. Cole (1967) Professor Emeritus, 1996.
Economics

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Biological Sciences

James L. Comer (1971) Professor Emeritus, 1981.
Physical Education

Jean L. Conroy (1961) Associate Professor Emeritus, 1994.
Mathematics

Gene R. Cooper (1969) Professor Emeritus, 2000.
Art

August E. Coppola (1969) Professor Emeritus, 2002.
Comparative Literature and Classics

Peter A. Cortese (1973) Associate Dean, Professor Emeritus, 1991.
School of Applied Arts and Sciences, Health Science

Edmund A. Cotta (1958) Professor Emeritus, 1991.
Marketing

Hidden T. Cox (1963) Professor Emeritus, 1986.
Biological Sciences

Duane C. Craven (1967) Associate Professor Emeritus, 1996.
Communicative Disorders

Walter B. Crawford (1963) Professor Emeritus, 1985.
English

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Recreation and Leisure Studies

Lyle R. Creamer (1962) Professor Emeritus, 1992.
Psychology

Robert D. Crossan (1955) Professor Emeritus, 1985.
Educational Psychology and Administration

Larry G. Curtis (1969) Professor Emeritus, 1994.
Music

Murray D. Dailey (1966) Professor Emeritus, 1992.
Biological Sciences

Donald L. Dame (1965) Professor Emeritus, 1992.
Art

Barry M. Dank (1968) Professor Emeritus, 2000.
Sociology

James E. Day (1955) Professor Emeritus, 1983.
English

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School of Applied Arts and Sciences, Industrial Education

Dorothy Deatherage (1955) Professor Emeritus, 1990.
Physical Education

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Molly Debysingh (1972) Professor Emeritus, 1997.
Geography

Sigrid G. Deeds (1988) Professor Emeritus, 1994.
Health Science and Gerontology

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Psychology

John de Heras (1967) Professor Emeritus, 1997.
Art

Beverly DeLong-Tonelli (1966) Professor Emeritus, 1993.
Romance, German, Russian Languages and Literature

Robert L. Delorme (1966) Professor Emeritus, 1994.
Political Science

George D. Demos (1962) Professor Emeritus, 1983.
Educational Psychology

Simon DeSoto (1969) Professor Emeritus, 2002.
Mechanical and Aerospace Engineering

Robert J. DeVoe (1968) Associate Professor Emeritus, 1992.
Management/Human Resources Management

Jerald A. Devore (1969) Professor Emeritus, 2000.
Chemistry and Biochemistry

Harold R. Dilbeck (1969) Professor Emeritus, 1991.
Finance, Real Estate and Law

Orval L. Dillingham (1955) Professor Emeritus, 1982.
Art

Grace E. Dinerstein (1967) Professor Emeritus, 1981.
Home Economics

Keith A. Dixon (1958) Professor Emeritus, 1992.
Anthropology

Marjorie B. Dole (1959) Counselor Emeritus, 1973.

William R. Doud (1971) Professor Emeritus, 1989.
Information Systems

Stacy E. Dukes (1964) Associate Professor Emeritus, 1988.
Design

Elizabeth O. DuPont (1965) Professor Emeritus, 1983.
Physical Education

Eldon J. Dvorak (1961) Professor Emeritus, 1991.
Economics

Betty V. Edmondson (1964) Professor Emeritus, 1999.
Kinesiology and Physical Education

Robert F. Eggers (1964) Professor Emeritus, 1994.
Theatre Arts

Albert L. Ehrreich (1957) Professor Emeritus, 1988.
Geological Sciences

Robert H. Eisenman (1973) Professor Emeritus, 2002.
Religious Studies

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Physics and Astronomy

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Civil Engineering

Harry D. Eylar (1963) Associate Professor Emeritus, 1999.
Mathematics

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Economics

Milton J. Fatt (1963) Professor Emeritus, 1997.
Mathematics

Armando T. Ferreira (1957) Professor Emeritus, 1995.
Art

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Psychology

David M. Fine (1968) Professor Emeritus, 1998.
English

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Film and Electronic Arts

Patricia Finot (1977) Professor Emeritus, 1999.
Dance

William E. Fisher (1955) Professor Emeritus, 1973.
Secondary Education

Gerald Ford (1969) Associate Professor Emeritus, 1994.
Management/Human Resources Management

William E. Fogg (1956) Professor Emeritus, 1981.
Educational Psychology

Dorothy L. Fornia (1965) Professor Emeritus, 1992.
Physical Education and Gerontology

L. Sheila Foster (1967) Professor Emeritus, 2001.
Computer Engineering and Computer Science

Barbara Franklin (1967) Professor Emeritus, 2000.
Kinesiology and Physical Education

Robert W. Frazer (1965) Professor Emeritus, 1975.
History

John E. Fredrickson (1955) Professor Emeritus, 1983.
Physics and Astronomy

Paul J. Fritts (1965) Professor Emeritus, 1990.
Geological Sciences

Robert K. Floyd (1958) Associate Professor Emeritus, 1980.
Mathematics

Charlotte D. Furth (1966) Professor Emeritus, 1990.
History

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Journalism

George W. Genevro (1957) Professor Emeritus, 1982.
Industrial Education

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Finance, Real Estate and Law

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Physics and Astronomy

Albert C. Germann (1957) Professor Emeritus, 1983.
Criminal Justice

John E. Gessford (1990) Professor Emeritus, 1997.
Information Systems

Norma B. Gibbs (1966) Associate Professor Emeritus, 1992.
Educational Psychology and Administration

Nadyne C. Gibson (1955) Professor Emeritus, 1977.
Music

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English

Paul R. Gilon (1969) Professor Emeritus, 1992.
Information Systems

C. Barclay Gilpin (1966) Professor Emeritus, 1998.
Mechanical and Aerospace Engineering

Alan J. Glasser (1959) Professor Emeritus, 1980.
Educational Psychology

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Teacher Education

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Speech Communication

Herman H. Graff (1964) Professor Emeritus, 1986.
Art

Jean M. Granger (1972) Professor Emeritus, 2002.
Social Work

David E. Gray (1954) Vice President, Administration and Staff Coordination
Emeritus, and Professor Emeritus, 1983.
Recreation and Leisure Studies

John H. Green (1955) Professor Emeritus, 1980.
Theatre Arts

Beatrice M. Greer (1968) Assistant Professor Emeritus, 1985.
Art

James R. Gregory (1970) Professor Emeritus, 1997.
Anthropology

Kenneth M. Gregory (1973) Professor Emeritus, 2001.
Biological Sciences

Betty Rose Griffith (1968) Professor Emeritus, 1988.
Physical Education

Dixie Ann Grimmitt (1965) Professor Emeritus, 2000.
Kinesiology and Physical Education

Calvin D. Gross (1962) Professor Emeritus, 1992.
Art

Daniel Guerriere (1969) Professor Emeritus, 2002.
Philosophy

Emma Jean Gunderson (1971) Professor Emeritus, 1997.
Information Systems

Albert F. Gunns (1967) Professor Emeritus, 2001.
History

Serafina Q. Gunter (1964) Professor Emeritus, 1980.
Accounting

Kathleen J. Halberg (1988) Associate Professor Emeritus, 2001.
Recreation and Leisure Studies

Charles D. Hamburger (1965) Professor Emeritus, 1996.
Management/Human Resources Management

Arlene D. Hamilton (1966) Associate Professor Emeritus, 1983.
Home Economics

Raphael M. Hanson (1961) Professor Emeritus, 1986.
Psychology

Sally A. Haralson (1966) Professor Emeritus, 1989.
Psychology

Forrest E. Harding (1971) Professor Emeritus, 2000.
Marketing

Leroy C. Hardy (1953) Professor Emeritus, 1986.
Political Science

Charles V. Harlow (1968) Professor Emeritus, 1994.
Finance, Real Estate and Law

Robert C. Harman (1969) Professor Emeritus, 2000.
Anthropology

Alice M. Harris (1969) Professor Emeritus, 1998.
Educational Psychology, Administration and Counseling

Edwin R. Harris (1959) Professor Emeritus, 1997.
Chemistry and Biochemistry

Luster E. Hauth (1964) Professor Emeritus, 1992.
Speech Communication

Glenn E. Hayes (1967) Professor Emeritus, 1991.
Engineering Technology

Robert E. Hayes (1961) Professor Emeritus, 2001.
Political Science

John L. Healy (1956) Associate Professor Emeritus, 1983.
Speech Communication

Jack Heeger (1990) Associate Professor Emeritus, 1992.
Journalism

Stephen S. Heineman (1969) Professor Emeritus, 1992.
Engineering Technology

Reinald C. Heise (1958) Professor Emeritus, 1988.
Management/Human Resources Management

Stanford M. Helm (1954) Professor Emeritus, 1977.
Music

Braxton C. Henderson (1964) Professor Emeritus, 1975.
Information Systems

Don A. Hennessee (1952) Assistant Humanities Librarian Emeritus, 1976.

John A. Herrmann (1955) Professor Emeritus, 1982.
English

John F. Herrmann (1980) Professor Emeritus, 2001.
Management/Human Resources Management

Truman O. Hickerson, Jr. (1965) Professor Emeritus, 1992.
Accountancy

John E. Higgins (1964) Professor Emeritus, 1980.
History

Robert A. Hipkiss (1966) Professor Emeritus, 1997.
English

Howard G. Hitchcock (1958) Professor Emeritus, 1990.
Art

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Biological Sciences

Joan C. Hoff-Templeton (1957) Professor Emeritus, 1994.
Design and Gerontology

Robert T. Holmes (1961) Professor Emeritus, 1986.
Marketing

Stephen Horn (1970) President Emeritus, 1988
Trustee Professor Political Science

Adelore L. Houde (1965) Professor Emeritus, 1985.
Electrical Engineering

Everett H. Hrubant (1957) Professor Emeritus, 1988.
Biological Sciences

Harold G. Hubbard (1970) Professor Emeritus, 1999.
Sociology

Carol A. Hunter (1969) Professor Emeritus, 1983.
Educational Psychology and Administration

Lloyd T. Inui (1965) Professor Emeritus, 1992.
Asian and Asian American Studies

Cathern M. Irwin (1961) Associate Professor Emeritus, 1983.
Health Science

Willard D. James (1967) Professor Emeritus, 1987.
Mathematics and Computer Science

Emanuel Jarasunas (1976) Professor Emeritus, 2002.
Engineering Technology

Hilton F. Jarrett (1966) Professor Emeritus, 1983.
Psychology

Kenneth D. Jenkins (1970) Professor Emeritus, 1997.
Biological Sciences

Marilyn A. Jensen (1965) Associate Vice President and Dean of University
Academic Programs and Professor Emeritus, 2000.
Recreation and Leisure Studies

Owen O. Jenson (1966) Professor Emeritus, 1994.
Speech Communication

Patricia E. Jersin (1965) Professor Emeritus, 1991.
Teacher Education

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University Library and Learning Resources

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Instructional Systems Technology

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Biological Sciences

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Art

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Teacher Education

John R. Jung (1968) Professor Emeritus, 2002.
Psychology

George V. Kacewicz (1966) Professor Emeritus, 1986.
Political Science

Stanley Kahan (1961) Professor Emeritus, 1994.
Theatre Arts

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Chemistry and Biochemistry

Thomas J. Kampwirth (1971) Professor Emeritus, 1999.
Educational Psychology, Administration and Counseling

Edward Karabenick (1959) Professor Emeritus, 1998.
Geography

Elizabeth S. Kaufman (1963) Professor Emeritus, 1989.
Nursing

Elizabeth Kazan (1955) Professor Emeritus, 1983.
Biological Sciences

Michael L. Kearney (1960) Professor Emeritus, 1996.
Finance, Real Estate and Law

Maxine K. Keenan (1971) Associate Professor Emeritus, 1981.
Home Economics

Mary F. Kefgen (1958) Professor Emeritus, 1987.
Home Economics

Kathleen L. Keller (1983) Professor Emeritus, 2000.
Nursing

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Journalism

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Electrical Engineering

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German, Russian and Classics

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Dance

Gretha Kershaw (1966) Professor Emeritus, 1983.
Anthropology

Eugene E. Kessler (1969) Associate Professor Emeritus, 1986.
French-Italian

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Men's Physical Education

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Biological Sciences

John C. Kimura (1967) Professor Emeritus, 1991.
Geography

Ronald L. King (1964) Professor Emeritus, 1991.
Information Systems

James J. Kirkpatrick (1967) Professor Emeritus, 1986.
Management/Human Resources Management

Byron C. Kluss (1959) Professor Emeritus, 1991.
Biological Sciences and Gerontology

Stephen R. Knafel (1962) Professor Emeritus, 1999.
English

I. Aileen Poole Koehler (1959) Professor Emeritus, 1974
Educational Psychology

Margaret L. Koehler (1970) Professor Emeritus, 1988.
Nursing

Charles J. Kokaska (1969) Professor Emeritus, 1999.
Educational Psychology, Administration and Counseling

Albert H. Koppenhaver (1969) Professor Emeritus, 1994.
Teacher Education

Lloyd A. Kramer (1973) Associate Director Library Emeritus, 1986.

Joseph H. Krause (1955) Professor Emeritus, 1996.
Art

Henry J. Krauser (1970) Associate Professor Emeritus, 1992.
Engineering Technology

Ronald A. Kroman (1959) Professor Emeritus, 1990.
Biological Sciences

Stephen Kulik (1959) Professor Emeritus, 1972.
Mathematics

Robert J. Kunst (1969) Professor Emeritus, 2001.
Art

Chester R. Kyle (1959) Professor Emeritus, 1984.
Mechanical Engineering

Hans Lampl (1965) Professor Emeritus, 1983.
Music

H. John Lane (1963) Professor Emeritus, 1999.
Computer Engineering and Computer Science

Mary J. Lass (1966) Professor Emeritus, 1994.
Teacher Education

Ann Lathrop (1989) Professor Emeritus, 1999.
Educational Psychology, Administration and Counseling

Donald P. Lauda (1983) Professor Emeritus, 2002.
Occupational Studies

Irvin T. Lathrop (1959) Professor Emeritus, 1988.
Industrial Education

Arthur C. Laufer (1957) Professor Emeritus, 1983.
Management/Human Resources Management

Alvin H. Lawson (1962) Professor Emeritus, 1990.
English

Joseph A. Lea (1968) Associate Professor Emeritus, 1997.
College of Education

Dorothy Leach (1968) Counselor Emeritus, 1987.

Mary Ellen Leach (1968) Associate Professor Emeritus, 2002.
Kinesiology and Physical Education

Isaiah C. Lee (1972) Professor Emeritus, 1997.
Social Work

Gordon Leis (1966) Professor Emeritus, 1988.
Sociology

Mary Jane Leland (1959) Professor Emeritus, 1986.
Art

John M. Lenoir (1974) Professor Emeritus, 1984.
Chemical Engineering

Lawrence S. Lerner (1969) Professor Emeritus, 1999.
Physics and Astronomy

Aren A. Lewis (1967) Professor Emeritus, 1982.
Accounting

Rodney C. Lewis (1958) Professor Emeritus, 1973.
Electrical Engineering

San Pao Li (1976) Professor Emeritus, 2001.
Asian and Asian American Studies

Dorothy Libby (1967) Associate Professor Emeritus, 1988.
Anthropology

Neil Lieberman (1975) Professor Emeritus, 1998.
Art

Van T. Lieu (1967) Professor Emeritus, 1996.
Chemistry and Biochemistry

Paulino M. Lim, Jr. (1967) Professor Emeritus, 2000.
English

John R. Lincoln (1968) Professor Emeritus, 1994.
Art

James I. Linden (1968) Professor Emeritus, 1998.
Psychology

Rhoda C. Lindner (1969) Professor Emeritus, 1998.
Psychology

John R. Lindquist (1966) Career Counselor Emeritus, 1987.

Ruth D. Lindsey (1976) Professor Emeritus, 1988.
Physical Education and Gerontology

Alexander Lipski (1958) Professor Emeritus, 1984.
History, Religious Studies

Lucille Logan (1964) Assistant Professor Emeritus, 1975.
Biological Sciences

Donna M. Longstreet (1968) Senior Assistant Librarian Emeritus, 1991.

Jose Lopez (1970) Professor Emeritus, 2001.
Chicano Latino Studies

Eileen E. Lothamer (1966) Professor Emeritus, 1986.
English

Kau Un Lu (1968) Professor Emeritus, 2000.
Mathematics

Keung P. Luke (1966) Professor Emeritus, 1998.
Physics and Astronomy

W. William Lumsden, Jr. (1958) Professor Emeritus, 1983.
Geological Sciences

Walter J. Lyche (1957) Associate Professor Emeritus, 1974.
Mathematics

M. Joan Lyon (1958) Professor Emeritus, 1992.
Physical Education

Richard E. Lyon (1958) Professor Emeritus, 1983.
English

David E. MacArthur (1964) Professor Emeritus, 1986.
Theatre Arts

B. David Macon (1957) Associate Professor Emeritus, 1986.
Industrial Education

Dan L. Madison (1983) Associate Professor Emeritus, 2000.
Management/Human Resources Management

Carl Maltz (1986) Professor Emeritus, 2002.
Computer Engineering and Computer Science

Jerome H. Manheim (1971) Professor Emeritus, 1988.
Mathematics and Computer Science

Greayer Mansfield-Jones (1962) Professor Emeritus, 1992.
Biological Sciences

Richard F. Marrs (1968) Associate Professor Emeritus, 2000.
Teacher Education

Kenneth L. Marsi (1961) Professor Emeritus, 1996.
Chemistry and Biochemistry

Alain-Gerard Marsot (1968) Professor Emeritus, 1998.
Political Science

Diane L. Martel (1968) Professor Emeritus, 1998.
Art

Howard S. Martin (1965) Professor Emeritus, 1991.
Radio, Television and Film

John M. Martin (1955) Professor Emeritus, 1982.
Art

Daniel G. Martinez (1964) Professor Emeritus, 2001.
Mathematics

Frederic J. Masback (1964) Professor Emeritus, 1989.
English

Phyllis F. Maslow (1975) Professor Emeritus, 1990.
Educational Psychology and Administration

Charles F. Mason (1964) Professor Emeritus, 1979.
Psychology

George E. Massey (1959) Professor Emeritus, 1983.
Philosophy

Joseph A. Mastropaolo (1968) Professor Emeritus, 1994.
Physical Education

Donald L. Maurer (1981) Professor Emeritus, 2000.
Biological Sciences

Kenneth E. Maxwell (1963) Professor Emeritus, 1973.
Biological Sciences

Charles E. May (1967) Professor Emeritus, 2001.
English

M. Adrienne Mayberry (1975) Professor Emeritus, 1998.
Nursing

Wendell H. McCulloch (1974) Professor Emeritus, 1997.
Finance, Real Estate and Law

Gloria McCullough May (1969) Professor Emeritus, 1992.
English

Sandra McMillan (1972) Professor Emeritus, 2001.
Film and Electronic Arts

Darwin L. Mayfield (1956) Professor Emeritus, 1990.
Chemistry

R. Clyde McCone (1961) Professor Emeritus, 1980.
Anthropology

John J. McConnell (1953) Professor Emeritus, 1986.
Physical Education

Thomas A. McCullough (1969) Professor Emeritus, 2001.
Mathematics

John M. McFaul (1963) Professor Emeritus, 1988.
History

William H. McGowan (1967) Professor Emeritus, 1996.
Philosophy

Edward B. McLeod, Jr. (1965) Professor Emeritus, 1986.
Mathematics and Computer Science

Flora A. Meisenheimer (1973) Associate Professor Emeritus, 1991.
Nursing

Peter J. Mendez (1976) Associate Professor Emeritus, 2001.
Art

Maxine O. Merlino (1952) Professor Emeritus, 1975.
Art

Vernon A. Metzger (1949) Professor Emeritus, 1982.
Management/Human Resources Management

Larry L. Meyer (1978) Professor Emeritus, 1992.
Journalism

Edward Miller (1968) Professor Emeritus, 1998.
Mechanical Engineering

Harold T. Miller (1958) Associate Professor Emeritus, 1971.
Civil Engineering

John Minar (1968) Professor Emeritus, 1989.
Recreation and Leisure Studies

Leslie B. Mittleman (1957) Professor Emeritus, 1998.
English

Mabel S. Moore (1967) Associate Professor Emeritus, 1983.
Home Economics

Tom D. Morgan (1967) Professor Emeritus, 1995.
Physical Education

Frank S. Morris (1969) Associate Professor Emeritus, 1992.
Teacher Education

M. Gamal Mostafa (1968) Professor Emeritus, 1987.
Civil Engineering

Dieter Muller-Stach (1968) Professor Emeritus, 1998.
Art

Jack H. Munsee (1968) Professor Emeritus, 1998.
Physics and Astronomy

Everett E. Murdock (1988) Professor Emeritus, 1998.
Educational Psychology, Administration and Counseling

Julien Musafia (1959) Professor Emeritus, 1983.
Music

Charles L. Myers (1956) Professor Emeritus, 1986.
Teacher Education

Dale E. Nelson (1956) Professor Emeritus, 1986.
Information Systems

Doris Nelson (1967) Professor Emeritus, 1987.
English

John A. Nelson, Jr. (1971) Dean, Professor Emeritus, 1983.
School of Education, Educational Psychology and Administration

Helen P. Newcastle (1969) Professor Emeritus, 2000.
Teacher Education

Loc T. Nguyen (1989) Associate Professor Emeritus, 2001.
Accountancy

Theodore E. Nichols (1956) Professor Emeritus, 1984.
History

Robert L. Nicholson (1957) Professor Emeritus, 1983.
Industrial Education

Jerome A. Nielsen (1968) Associate Professor Emeritus, 1988.
Physical Therapy

Frank Noffke (1964) Counselor Emeritus, 1981.

Susan G. Nummedal (1972) Professor Emeritus, 2002.
Psychology

John E. Nygaard (1963) Professor Emeritus, 1990.
Psychology

Leonard Olguin (1974) Professor Emeritus, 1996.
Teacher Education

Hazel A. Oliver (1960) Senior Assistant Librarian Emeritus, 1980.

R. Warner Olsen, Jr. (1960) Senior Assistant Librarian Emeritus, 1992.

Douglas H. Orgill (1951) Professor Emeritus, 1983.
English

Russel E. Orpet (1959) Professor Emeritus, 1992.
Educational Psychology and Administration

Elizabeth T. Ortiz (1983) Professor Emeritus, 2001.
Social Work

Carolyn M. Owen (1970) Professor Emeritus, 1986.
Educational Psychology and Administration

Frank F. Paal (1968) Professor Emeritus, 1992.
Electrical Engineering

Feliksas Palubinskas (1965) Professor Emeritus, 1988.
Marketing

Anna M. Parmley (1969) Associate Professor Emeritus, 1988.
Biological Sciences

Carl Payne (1968) Professor Emeritus, 1990.
Information Systems

David R. Peck (1967) Professor Emeritus, 1999.
English

Wilm Pelters (1970) Professor Emeritus, 2000.
Romance, German, Russian Languages and Literatures

Fernando Peñalosa (1970) Professor Emeritus, 1990.
Sociology

Wanda L. Pentecost (1963) Professor Emeritus, 1987.
Nursing and Gerontology

Louis E. Perigut (1965) Professor Emeritus, 1982.
Chemistry

Leland M. Perry (1956) Professor Emeritus, 1990.
Teacher Education

Robert A. Pestolesi (1955) Professor Emeritus, 1986.
Physical Education

Paul G. Petersen (1962) Professor Emeritus, 1985.
Psychology

Audrey Buckland Peterson (1966) Professor Emeritus, 1983.
English

Kenneth L. Pickard (1971) Associate Professor Emeritus, 2002.
Information Systems

Alvin A. Pine (1962) Professor Emeritus, 1996.
Art

Ferinand J. Plourde, Jr. (1966) Associate Professor Emeritus, 1994.
English

Dora Beale Polk (1968) Professor Emeritus, 1987.
English

Charles W. Pomeroy (1970) Associate Professor Emeritus, 2000.
English

Frank M. Pooler (1959) Professor Emeritus, 1988.
Music

Donald F. Popham (1956) Professor Emeritus, 1986.
Teacher Education

Richard E. Porter (1970) Professor Emeritus, 1996.
Speech Communication

Richard C. Potter (1967) Dean, Professor Emeritus, 1983.
School of Engineering, Mechanical Engineering

J. Richard Powell (1954) Professor Emeritus, 1984.
Economics

James G. Powell (1961) Professor Emeritus, 1991.
Speech Communication

Melchior D. Powell (1973) Professor Emeritus, 1992.
Public Policy and Administration

John H. Prince (1974) Professor Emeritus, 2002.
Music

Yoko S. Pusavat (1972) Professor Emeritus, 2002.
Asian and Asian American Studies

Charles E. Quest (1966) Professor Emeritus, 2001.
Philosophy

Elisabeth M. Quillen (1964) Professor Emeritus, 1985.
French-Italian

Michael T. Quinn (1970) Professor Emeritus, 1994.
Management/Human Resources Management

Louis E. Quinones (1965) Associate Professor Emeritus, 1992.
Technology Education

Bonnie J. Rader (1970) Professor Emeritus, 1990.
Home Economics

Walter J. Raine (1968) Professor Emeritus, 1983.
Psychology

Dennis G. Rainey (1956) Professor Emeritus, 1988.
Biological Sciences

Robert W. Ramsey (1957) Professor Emeritus, 1990.
Art

Clare G. Rayner (1957) Professor Emeritus, 1986.
Music

Don F. Reed (1957) Associate Professor Emeritus, 1980.
Physical Education

Willard H. Reed (1962) Professor Emeritus, 1983.
Civil Engineering

Jo A. Redmon (1964) Professor Emeritus, 1997.
Kinesiology and Physical Education

C. Patricia Reid (1951) Professor Emeritus, 1974.
Women's Physical Education

Donald J. Reish (1958) Professor Emeritus, 1988.
Biological Sciences

William M. Resch (1964) Professor Emeritus, 1995.
Psychology

Richard L. Resurreccion (1978) Professor Emeritus, 1999.
Occupational Studies

Henry Reyna (1970) Counselor Emeritus, 1987.

Fen Rhodes (1967) Professor Emeritus, 2000.
Psychology

Hans P. Ridder (1964) Associate Professor Emeritus, 1991.
Political Science

William C. Ritz (1977) Professor Emeritus, 2000.
Science Education

Charles A. Roberts, Jr. (1956) Professor Emeritus, 1986.
Physics and Astronomy

Johanna W. Roden (1962) Professor Emeritus, 1991.
German and Russian

Clara G. Rodney (1968) Professor Emeritus, 1983.
Teacher Education

Mildred S. Rodriguez (1974) Professor Emeritus, 1988.
Home Economics

Fred Rogers (1959) Associate Professor Emeritus, 1992.
Speech Communication

Harry G. Romig (1966) Professor Emeritus, 1972.
Operations Research and Statistics

Robert F. Rooney (1970) Professor Emeritus, 1998.
Economics

Ailee W. Rose (1951) Professor Emeritus, 1974.
English

Kay L. Roskam (1974) Professor Emeritus, 1994.
Music

Ruth A. Ross (1980) Associate Professor Emeritus, 1998.
Public Policy and Administration

Stephen B. Ross (1968) Professor Emeritus, 1999.
Linguistics

Arlene A. Roster (1952) Professor Emeritus, 1975.
Elementary Education

Robert D. Routh (1967) Professor Emeritus, 1983.
Industrial Education

Kenneth W. Rugg (1964) Professor Emeritus, 1989.
Theatre Arts

George E. Rush (1973) Professor Emeritus, 2002.
Criminal Justice

Ruth L. Russell (1963) Professor Emeritus, 1994.
Biological Sciences

Eugene E. Ruyle (1976) Professor Emeritus, 2002
Anthropology

Bruce Ryan (1978) Professor Emeritus, 1997.
Communicative Disorders

James E. Ryan (1954) Professor Emeritus, 1983.
Industrial Education

Eva Sakamoto (1967) Assistant Professor Emeritus, 1982.
Nursing

Sema'an I. Salem (1961) Professor Emeritus, 1998.
Physics and Astronomy

David N. Samuelson (1966) Professor Emeritus, 2002.
English

Federico A. Sanchez (1969) Professor Emeritus, 1999.
Chicano Latino Studies

Charles R. Sandefur (1964) Professor Emeritus, 2000.
Kinesiology and Physical Education

William F. Sater (1967) Professor Emeritus, 1995.
History

Janet B. Sawyer (1957) Professor Emeritus, 1986.
English

Richard Scalettar (1968) Professor Emeritus, 1992.
Physics and Astronomy

Alfred I. Schmidt (1967) Associate Professor Emeritus, 1993.
Educational Psychology and Administration

Milton E. Schmidt (1959) Professor Emeritus, 1979.
Industrial Education

John H. Schmitt (1974) Professor Emeritus, 1989.
Spanish/Portuguese

Doris D. Tabor Schroeder (1967) Professor Emeritus, 1987.
Teacher Education

Cramer W. Schultz (1964) Professor Emeritus, 1991.
Physics and Astronomy

James W. Schultz (1963) Associate Professor Emeritus, 1980.
Physical Education

Arnold T. Schwab (1961) Professor Emeritus, 1980.
English

Howard J. Schwartz (1969) Professor Emeritus, 2001.
Mathematics

Morton D. Schwartz (1970) Professor Emeritus, 2002.
Computer Engineering and Computer Science

Bruce L. Scott (1965) Professor Emeritus, 1996.
Physics and Astronomy

Joseph F. Seewerker (1967) Professor Emeritus, 1992.
Computer Engineering and Computer Science

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.

Norman E. Sexauer (1967) Professor Emeritus, 1992.
Mathematics

John W. Shainline (1966) Vice President for Student Services Emeritus, 1990.

Tyntje Shapli (1983) Professor Emeritus, 2000.
Dance

Shaak, John J. (1963) Professor Emeritus, 1998.
Art

Peter L. Shaw (1974) Professor Emeritus, 1994.
Public Policy and Administration

Alfred W. Sheets (1959) Professor Emeritus, 1975.
Sociology

Gail Shoup (1969) Professor Emeritus, 1989.
Theatre Arts

Martha A. Siegel (1975) Professor Emeritus, 1994.
Nursing

Robert M. Simmons (1959) Professor Emeritus, 1983.
Management/Human Resources Management

Donald H. Simonson (1956) Professor Emeritus, 1980.
Chemistry

Gene R. Simonsen (1958) Professor Emeritus, 1990.
Economics

Sidney B. Sims, Jr. (1960) Senior Assistant Librarian Emeritus, 1994.

Lorelei P. Sinclair (1966) Assistant Librarian Emeritus, 1991.

William A. Sinclair (1970) Professor Emeritus, 2002.
Kinesiology and Physical Education

Bernard J. Skalka (1967) Professor Emeritus, 1998.
Theatre Arts

A. Keith Skarsten (1956) Professor Emeritus, 1982.
English

Iva L. Skov (1972) Professor Emeritus, 1998.
Economics

Carl J. Slawski (1970) Professor Emeritus, 2001.
Sociology

Elbert L. Sleeper (1957) Professor Emeritus, 1992.
Biological Sciences

Alton H. Smith (1957) Professor Emeritus, 1992.
Mathematics

Donald H. Smith (1960) Professor Emeritus, 1986.
Industrial Education

Earl M. Smith (1968) Professor Emeritus, 1991.
Technology Education

Peggy J. Smith (1968) Professor Emeritus, 1992.
Sociology

Robert J. Smith (1966) Professor Emeritus, 1992.
Management/Human Resources Management

Larry C. Snider (1970) Librarian Emeritus, 2000.
University Library

Lynn S. Snyder (1988) Professor Emeritus, 1998
Communicative Disorders

Christian Soe (1967) Professor Emeritus, 2001.
Political Science

Colleen Sparks (1978) Professor Emeritus, 1997
Nursing

Doris S. Specht (1985) Head, Humanities Librarian Emeritus, 1973.

Richard D. Spiese (1967) Associate Professor Emeritus, 1997.
English

Richard Spiller (1969) Professor Emeritus, 1997.
Marketing

Joel B. Splansky (1969) Professor Emeritus, 2001.
Geography

Arnold R. Springer (1968) Professor Emeritus, 2001.
History

Meyer L. Stein (1974) Professor Emeritus, 1989.
Journalism

Lee B. Stephens, Jr. (1962) Professor Emeritus, 1983.
Biological Sciences

Charles E. Stetler (1967) Professor Emeritus, 1992.
English

A. Jay Stevens (1968) Professor Emeritus, 2002.
Political Science

Perri J. Stinson (1969) Professor Emeritus, 1988.
Information Systems

Harry E. Stiver, Jr. (1964) Professor Emeritus, 1983.
Theatre Arts

Lavonne L. Stock (1959) Professor Emeritus, 1980.
Physical Education

Robert E. Strain (1956) Professor Emeritus, 1978.
Economics

Paul W. Stroud (1957) Professor Emeritus, 1980
Music

Jack M. Stuart (1967) Professor Emeritus, 2000.
History

Vivian M. Sucher (1962) Professor Emeritus, 1986
Nursing and Gerontology

Roy A. Sugimoto (1969) Associate Professor Emeritus, 1988.
Teacher Education

Gerald L. Sullivan (1968) Professor Emeritus, 1998.
English

Neil V. Sullivan (1972) Professor Emeritus, 1986.
Educational Psychology and Administration

Sabri Sungu (1961) Professor Emeritus, 1983.
Mechanical Engineering

Robert J. Swan (1964) Professor Emeritus, 1986.
Educational Psychology and Administration

Frank E. Swatek (1956) Professor Emeritus, 1992.
Biological Sciences

Frederick M. Swensen (1961) Professor Emeritus, 1990.
French/Italian

Richard H. Swift (1958) Professor Emeritus, 1980.
Art

Mary Christine Talmadge (1993) Professor Emeritus, 2001.
Nursing

Norma Bernstein Tarrow (1968) Professor Emeritus, 1997.
Teacher Education

Kenneth S. Teel (1969) Professor Emeritus, 1988.
Management/Human Resources Management

Richard J. Teweles (1967) Professor Emeritus, 1991.
Finance, Real Estate and Law

A. G. Tharp (1959) Professor Emeritus, 1987.
Chemistry

Lindsay Thomas, Jr. (1961) Professor Emeritus, 1992.
French and Italian

Charles M. Thompson (1956) Professor Emeritus, 1983.
Art

Talmadge C. Tillman, Jr. (1968) Professor Emeritus, 1991.
Accountancy

F. Alan Timmons (1954) Professor Emeritus, 1980.
Instructional Media

Djoe T. Tjioe (1970) Associate Professor Emeritus, 2000.
Biological Sciences

Dale P. Toohey (1972) Professor Emeritus, 2001.
Kinesiology and Physical Education

Bruce J. Torby (1961) Professor Emeritus, 2000.
Mechanical Engineering

John A. Torney, III (1957) Professor Emeritus, 1986.
Health Science

Leonard Torres (1956) Professor Emeritus, 1988.
Industrial Education

William J. Traynor (1973) Professor Emeritus, 1992.
Management/Human Resources Management

Thomas Trombetas (1961) Professor Emeritus, 1989.
Political Science

Robert G. Trout (1961) Professor Emeritus, 1991.
Technology Education

Ching H. Tsao (1965) Professor Emeritus, 1986.
Mechanical Engineering

Robert E. Tumelty (1974) Professor Emeritus, 1992.
Health Care Administration

Efraim Turban (1991) Professor Emeritus, 1999.
Information Systems

Theresa G. Turk (1970) Professor Emeritus, 1995.
Sociology

M. Barbara Turner (1966) Professor Emeritus, 1999.
Mathematics

Judith A. Tyner (1970) Professor Emeritus, 2000.
Geography

Paul S. Ullman (1958) Professor Emeritus, 1994.
Sociology

Hillar Unt (1960) Professor Emeritus, 1998.
Mechanical and Aerospace Engineering

Alexander D. Urquhart (1953) Professor Emeritus, 1982.
Political Science

Hans H. Vander Meyden (1961) Associate Professor Emeritus, 1983.
Mechanical Engineering

James J. Van Elmeren (1961) Professor Emeritus, 1994.
Art

Joseph Verdina (1959) Professor Emeritus, 1987.
Mathematics and Computer Science

Charles T. Walker (1964) Professor Emeritus, 1991.
Geological Sciences

(Milton) Glenn Walker (1964) Professor Emeritus, 1988.
Sociology

William J. Wallace (1963) Professor Emeritus, 1970.
Anthropology

Eugene C. Wallin (1956) Professor Emeritus, 1990.
Art

Barbara A. Ward (1968) Associate Professor Emeritus, 1980.
Instructional Systems Technology

Carolyn A. Wardrip (1981) Professor Emeritus, 2001.
Communicative Disorders/Linguistics

Kenneth K. Warner (1968) Professor Emeritus, 2001.
Mathematics

Virginia G. Warren (1973) Dean, Professor Emeritus, 1992.
College of Humanities, Communicative Disorders, and Gerontology

Stuart L. Warter (1965) Professor Emeritus, 1997
Biological Sciences

Harold W. Washburn (1965) Professor Emeritus, 1972.
Electrical Engineering

Donald J. Weinstock (1969) Professor Emeritus, 2000.
English

Kenneth C. Weisbrod (1964) Associate Dean Emeritus, 1980.
Counseling and Testing

Robert G. Wells (1963) Professor Emeritus, 1985.
Journalism

Stephen G. Werlick (1964) Professor Emeritus, 1995.
Art

Jean D. Wheeler (1966) Professor Emeritus, 2000.
Geography

Paul M. Whisenand (1965) Professor Emeritus, 2000.
Criminal Justice

David B. Whitcomb (1967) Counselor Emeritus, 1987.

Susanne Whitcomb (1973) Professor Emeritus, 1987.
School of Business Administration

Elaine E. White (1974) Professor Emeritus, 2002.
Nursing

Richard H. Wilde (1951) Professor Emeritus, 1983.
History

Betty Williams (1989) Professor Emeritus, 1996.
Nursing

John B. Williams (1966) Professor Emeritus, 1992.
English

Luster J. Williams (1956) Professor Emeritus, 1983.
English

R. Ora Williams (1968) Professor Emeritus, 1988.
English

Stanley W. Williams (1952) Professor Emeritus, 1983.
Educational Psychology and Administration

James N. Wilson (1950) Professor Emeritus, 1979.
Geography

Robert R. Wilson (1966) Professor Emeritus, 2001.
Computer Engineering and Computer Science/Mathematics

Suzanne M. Wilson (1958) Professor Emeritus, 1980.
English

Robert E. Winchell (1966) Professor Emeritus, 1995.
Geological Sciences

Robert W. Winchell (1961) Professor Emeritus, 1980.
Electrical Engineering

Robert W. Winslow (1952) Professor Emeritus, 1980.
Music

Herbert A. Winter (1959) Associate Professor Emeritus, 1988.
French/Italian

William V. Wittich (1967) Professor Emeritus, 1998.
Occupational Studies

Stanley Wolf (1979) Professor Emeritus, 1997.
Electrical Engineering

Marjorie E. Wood (1968) Professor Emeritus, 1991.
Biological Sciences

Edwin L. Woollett (1966) Professor Emeritus, 1999.
Physics and Astronomy

Robert W. Wuesthoff (1959) Professor Emeritus, 1989.
Physical Education

David J. Wurzer (1972) Professor Emeritus, 2001.
Kinesiology and Physical Education

Frank W. Wylie (1988) Professor Emeritus, 1992.
Journalism

Leslie K. Wynston (1965) Professor Emeritus, 1998.
Chemistry and Biochemistry

Alva F. Yano (1963) Professor Emeritus, 1992.
Physics and Astronomy

Jo Ann R. Yates (1968) Professor Emeritus, 1986.
Communicative Disorders

Bing C. Yen (1964) Professor Emeritus, 1992.
Civil Engineering

William H. Ying (1964) Professor Emeritus, 1998.
Civil Engineering

James L. Young (1963) Assistant Professor Emeritus, 1974.
Engineering Technology

Fathi S. Yousef (1972) Professor Emeritus, 1997.
Speech Communication

Pierre Yperman (1963) Associate Professor Emeritus, 1992.
French and Italian

IN MEMORIAM

D. O. Bowman

Dick Buchanan

Roscoe Buckland

Tessie Cleveland

Robert Click

Walter Crowe

Charles Fillerup

Robert Frazer

George Hackney

Bernard Harvey

Richard Lyon

J. Brooks Maue

Consuelo Nieto

Helen Nixon

Donald Peters

Josephine Schultz

Larry Todd

David Viera

Dorothy Walsh

John Williams

Donald Zimmerman